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Home

The Catalog contains all programs offered by The University of Texas Health Science Center at San Antonio, providing applicants and enrolled students with the information they need regarding the academic careers available to them and the resources needed to succeed in those.

DISCLAIMER
This UT Health Science Center Course Catalog is published in compliance with the Southern Association of Colleges and Schools accreditation standards and the University of Texas System. The intent of this course Catalog is to assist current and prospective students on academic matters. The Course Catalog is pending formal approval from The University of Texas System Office of General Counsel for the 2013-2015 academic years. All current and prospective students are advised to direct any inquiries to either the specific school or the HSC Office of the Registrar.
General Information

The University of Texas Health Science Center at San Antonio

2013-2015 Catalog

This Catalog is a general information publication only. It is not intended to nor does it contain all regulations that relate to students. The provisions of this Catalog do not constitute a contract, express or implied, between any applicant, student, or faculty member and The University of Texas Health Science Center at San Antonio or The University of Texas System. The University of Texas Health Science Center at San Antonio reserves the right to withdraw courses at any time, and to change fees, tuition, calendars, curriculum, degree requirements, graduation procedures, and any other requirements affecting students. Changes will become effective whenever the proper authorities so determine and will apply to both prospective students and those already enrolled.

Correspondence

Inquiries about admission or any other information should be addressed to:

UT Health Science Center San Antonio
Office of the Registrar
Mail Code 7702
7703 Floyd Curl Drive
San Antonio, Texas 78229-3900

The University of Texas Health Science Center at San Antonio and all of its activities are subject to the Rules and Regulations of the Board of Regents of The University of Texas System.

The UT Health Science Center San Antonio is accredited by the Commission on Colleges of the Southern Association of Colleges and Schools to award certificates and baccalaureate, masters, doctoral, and professional degrees. Contact the Commission on Colleges at 1866 Southern Lane, Decatur, Georgia 30033-4097 or call 404-679-4500 for questions about the accreditation of The University of Texas Health Science Center at San Antonio. Our SACS accreditation has been reaffirmed through 2018.

As authorized by the Board of Regents, and subject to approval of the UT System, The University of Texas Health Science Center at San Antonio has added race and ethnicity to the broad range of criteria considered for student admission and for awarding of scholarships and fellowships beginning with the academic year 2006–2007.

As per Public Law 101-542, The Student Right to Know and Campus Security Act, information on the graduation rate is available on request from the Registrar. All students who enroll are required to be adequately immunized prior to registration. Students applying for admission may review accreditation documents of the Health Science Center by contacting the Office of the President. Information regarding campus security and crime statistics is available from University Police and in this Catalog.

To the extent provided by applicable law, no person shall be excluded from participation in, denied the benefits of, or be subject to discrimination under any program or activity sponsored or conducted by the UT System or any of its component institutions, on the basis of race, color, national origin, religion, sex, age, sexual orientation, veteran status, or disability. The component institutions of the UT System will make maximum use of resources, consistent with standards of appropriate accrediting bodies and enrollment and admissions policies approved by the Board, to admit and educate as many qualified students as possible.

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Published by The Office of the Registrar, September 2013
Blanca Guerra, LBSW, MSSW, Registrar

Administration

UT System Board of Regents

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Paul L. Foster, Vice Chairman
R. Steven “Steve” Hicks, Vice Chairman

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Member with term set to expire May 2014

Student Regent Nash M. Horne, Austin

Members with term set to expire February 2015

Chairman Wm. Eugene “Gene” Powell, Chairman, San Antonio
Vice Chairman R. Steven “Steve” Hicks, Austin
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Regent Jeffery D. Hildebrand, Houston

Note: Terms expire depending on the date the successor is appointed, qualified, and takes the oath of office. The Student Regent serves a one-year term.

Francie A. Frederick is the General Counsel to the Board of Regents.

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Pedro Reyes, Ph.D., Executive Vice Chancellor for Academic Affairs
Kenneth I. Shine, M.D., Executive Vice Chancellor for Health Affairs
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Scott C. Kelley, Ed.D., Executive Vice Chancellor for Business Affairs

Daniel H. Sharphorn, J.D., Vice Chancellor and General Counsel, ad interim

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Randa S. Safady, Ph.D., Vice Chancellor for External Relations

Stephanie A. Bond Hule, Ph.D., Vice Chancellor for Strategic Initiatives, ad interim

Amy Shaw-Thomas, J.D., Vice Chancellor for Health Affairs

Patricia D. Hurn, Ph.D., Vice Chancellor for Research and Innovation

William H. Shute, J.D., Vice Chancellor for Federal Relations

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Regent Jeffery D. Hildebrand, Houston

Note: Terms expire depending on the date the successor is appointed, qualified, and takes the oath of office. The Student Regent serves a one-year term.

Francie A. Frederick is the General Counsel to the Board of Regents.

UT Health Science Center

Executive Leadership

President: William L. Henrich, MD, MACP

Senior Executive Vice President and Chief Operating Officer: Michael E. Black, MBA

Executive Vice President for Facility Planning and Operations: James D. Kazen

Vice President for Academic, Faculty and Student Affairs: Michael Gargano, EdD

Vice President for Governmental Relations: Armando Diaz, MEd

Vice President for Business Affairs and Chief Financial Officer: Andrea Marks, MBA, CPA

Vice President for South Texas Programs: Joseph B. McCormick, MD, MS

Vice President for Human Resources: J. Michael Tesh, MBA

Vice President for Institutional Advancement and Chief Development Officer: Deborah H. Morrill, MS

Vice President and Chief Information Officer: Yeman Collier, BS

Vice President for Communications and Chief of Staff: Mary G. Delay, MBA

Dean, School of Medicine and Vice President for Medical Affairs: Francisco Gonzalez-Scarano, MD

Dean, School of Nursing: Eileen T. Breslin, PhD, RN

Dean, Dental School: William W. Dodge, DDS
Health Science Center

The University of Texas Health Science Center at San Antonio (HSC) is one of fifteen institutions in the University of Texas System (http://www.utsystem.edu). The HSC includes five schools that offer programs of study in a variety of healthcare professions from the undergraduate to post-doctorate level. Select any school or degree level from the lists available for more information on the programs offered.

For more general information on the HSC, visit the institution's website (http://www.uthscsa.edu).

Mission Statement

The mission of the University of Texas Health Science Center at San Antonio (http://www.uthscsa.edu) is to make lives better through excellence in education, research, health care and community engagement.

Strategies for achieving this mission are:

- Educating a diverse student body to become excellent health care providers and scientists.
- Engaging in research to understand health and disease.
- Commercializing discoveries, as appropriate, to benefit the public.
- Providing compassionate and culturally proficient health care.
- Engaging our community to improve health.
- Influencing thoughtful advances in health policy.

(Approval by The Texas Higher Education Coordinating Board -- April 25, 2012)

Purpose

The purpose of the University of Texas Health Science Center at San Antonio (http://www.uthscsa.edu) is to provide the best in health careers education, biomedical research, patient care and community service to San Antonio and the South Texas/Border Region. Through undergraduate, graduate and postgraduate programs, the faculty are committed to educating health professionals who will provide excellent patient care and research that can be applied to treat and prevent disease.

Research and Teaching

Faculty excellence at the Health Science Center (http://www.uthscsa.edu) (HSC) is demonstrated by faculty members’ participation on many national advisory and governing boards and by their election to high offices in national and professional societies. Faculty recruitment efforts emphasize research as well as teaching. The Health Science Center receives millions of dollars annually in new research, training, and public-service grants and contracts for hundreds of projects. The university endowment is growing at an impressive rate.

With the cooperation of medical institutions in the area and the combined resources of the Southwest Research Consortium (http://www.swri.org/7biz/consort.htm) - composed of the UT Health Science Center, The University of Texas at San Antonio (UTSA) (http://www.utsa.edu), the Audie L. Murphy Division of the South Texas Veterans Health Care System (VA) (http://www.southtexas.va.gov), Trinity University (http://www.trinity.edu), St. Mary’s University (http://www.stmarytx.edu), the Texas Biomedical Research Institute (http://txbiomed.org/About), Southwest Research Institute (http://www.swri.org), the 311th Human Systems Wing at Brooks City-Base, and the San Antonio Military Medical Center (SAMMC), (http://www.sammc.amedd.army.mil) - both basic and clinical research is under way in such fields as cancer, aging, genetics, immunology, cardiovascular disorders, nutrition, arthritis, osteoporosis, psychiatric disorders, AIDS, new drug development, and reproductive biology.

The Institute of Biotechnology (IBT) (http://molecularmedicine.uthscsa.edu) is located on a 181-acre site in the Texas Research Park, 20 miles west of the central campus. The IBT is joined by the adjacent South Texas Centers for Biology in Medicine, the Sam and Ann Barshop Institute for Longevity and Aging Studies (http://www.barshop.uthscsa.edu), the Institute for Drug Development (IDD) and the Southwest Oncology Group (SWOG).

The Robert F. McDermott Clinical Science Building, on our Greehey Academic and Research Campus, houses the Research Imaging Institute (http://ric.uthscsa.edu) as well as research labs and teaching facilities for the Clinical Pharmacology and Clinical Pharmacy Programs and the Ophthalmology Department.

The School of Health Professions (http://www.uthscsa.edu/shp) programs are located in three campus buildings. The Research Administration Building is adjacent to the McDermott Building and the Greehey Children’s Cancer Research Institute (http://ccri.uthscsa.edu) (GCCRI) and houses three School of Health Professions departments: Emergency Health Sciences, Occupational Therapy, and Physical Therapy. The Department of Clinical Laboratory Sciences is housed in the Dental School Building on the main campus. The Physician Assistant Studies program and the Department of Respiratory Care are located in the School of Medicine building on the main campus along with the School of Health Professions Dean’s Office.

The Greehey Children’s Cancer Research Institute (GCCRI) (http://ccri.uthscsa.edu) is a unique and specialized cancer research center located at the HSC’s Greehey Academic and Research Campus. The mission of the Greehey CCRI is to advance scientific knowledge relevant to childhood cancer and to accelerate the translation of knowledge into novel therapies. Through discovery, development, and dissemination of scientific knowledge with relevancy to childhood cancer, the overarching aim of the Greehey CCRI is to impact the problem of cancer at all ages.

The Cancer Therapy & Research Center (CTRC) (http://www.ctrc.net) is one of the elite academic cancer centers in the country to be named a National Cancer Institute (NCI) Designated Cancer Center, and is one of only four in Texas. A leader in developing new drugs to treat cancer, the CTRC Institute for Drug Development (IDD) conducts one of the largest oncology Phase I clinical drug programs in the world, and participates in development of cancer drugs approved by the U.S. Food & Drug Administration.

The Medical Arts & Research Center (MARC) (http://www.utmedicine.org) is home to the physicians of UT Medicine San Antonio (http://www.utmedicine.org), the clinical practice of the School of Medicine at the UT Health Science Center San Antonio. With more than 700 doctors – all faculty members from the School of Medicine – UT Medicine is the largest medical practice in Central and South Texas, practicing in more than 100 different medical specialties and subspecialties. Located in the South
Texas Medical Center at 8300 Floyd Curl Drive, the MARC features state-of-the-art clinics, diagnostic imaging, an ambulatory center, endoscopic suites, operating rooms, physician’s offices, and a pharmacy. The MARC complements community physicians who are invited to refer complex cases to UT Medicine San Antonio specialists and subspecialists.

The South Texas Research Facility (STRF) (http://research.uthscsa.edu/strf), completed in 2011, is the 190,000-square-foot ultra-modern facility that houses the university’s growing research enterprise, including the Institute for Integration of Medicine and Science and the Center for Healthy Aging. The close proximity of the STRF to the MARC is expected to fuel the translation of basic research discoveries into new treatments and cures to save lives.

**Size and Location**

The University of Texas Health Science Center at San Antonio (http://www.uthscsa.edu) (HSC) is one of 15 institutions of the University of Texas System (http://www.utsystem.edu). The Health Science Center (http://www.uthscsa.edu) is composed of eight campuses in San Antonio and South Texas.

The Joe R. and Teresa Lozano Long Campus is located on nearly 100 acres in the heart of San Antonio’s South Texas Medical Center (http://www.southtexasmedicalcenter.com). A few blocks away are the 92-acre Greehey Academic and Research Campus, as is the Medical Arts & Research Center (MARC). The 181-acre Texas Research Park is in west Bexar County. The Cancer Therapy & Research Center (CTRC) and the South Texas Research Facility are located on the Greehey campus on Floyd Curl Drive. The university’s South Texas campuses are located in Harlingen, Laredo, and Edinburg.

Students are enrolled in the HSC’s five schools—the Dental School (http://dental.uthscsa.edu), Graduate School of Biomedical Sciences (http://gsbs.uthscsa.edu), School of Health Professions (http://www.uthscsa.edu/shp), School of Medicine (http://som.uthscsa.edu), and School of Nursing (http://nursing.uthscsa.edu). Also, programs leading to a Doctor of Pharmacy, Master of Public Health, as well as a Ph.D. in translational science and M.S. and Ph.D. degrees in biomedical engineering, are jointly conducted with other universities of The University of Texas System.

In addition, several hundred individuals are pursuing post-doctoral education, and hundreds more medical interns and residents are training at the institution. Annual research and other sponsored program activity accounts for $231 million (FY 2011). The interdisciplinary aspects of research and patient care are regarded as being among the university’s greatest strengths. The university’s locations on the northwest side of San Antonio are accessible to those who study and work in the Medical Center complex and to patients. Interstate 10 and the city’s major thoroughfare, Loop 410, converge about one mile from the Long and Greehey campuses.

The Health Science Center (http://www.uthscsa.edu) enjoys a suburban setting, away from congested traffic areas. Built on areas covered with native oak trees, the campuses are designed to preserve large spaces of grass and trees, with the San Antonio campuses overlooking views of the famous Texas Hill Country (http://www.texashillcountry.com). The Health Science Center has more than 4 million square feet of education, research, treatment, and administrative facilities. The university employs more than 5,000 faculty and staff, and has an annual budget of approximately $736 million.

The Greehey Children’s Cancer Research Institute (GCCRI) (http://ccri.uthscsa.edu) concentrates on the epidemiology of children’s cancer in the South Texas border region, identifying new targets of therapy in childhood cancer, new drug development, and research in cancer prevention. The GCCRI is located on the Greehey (North) campus (8403 Floyd Curl Drive), between the CTRC and the Research Administration Building.

Many institutions in San Antonio serve as excellent resources for programs of the Health Science Center. These include facilities of Bexar County’s University Health System, South Texas Veterans Health Care System’/ (http://www2.va.gov/directory/guide/facility.asp?id=115) Audie Murphy Division (http://www2.va.gov/directory/guide/facility.asp?id=115), CHRISTUS Santa Rosa Health Care (http://www.christussantarosa.org), San Antonio Military Health System (http://www.bamc.amedd.army.mil/samhs.asp) the U.S. Air Force School of Aerospace Medicine (http://www.brooks.af.mil/units/usaafschoolaerospacemedicine), San Antonio Metropolitan Health District (http://www.sanantoniogov.health), Southwest Research Institute (http://www.swri.org), and the Texas Biomedical Research Institute (http://txbiomed.org/About).

The Health Science Center’s Regional Academic Health Center (RAHC) (http://rahc.uthscsa.edu) is located in the Lower Rio Grande Valley. Dozens of third- and fourth-year medical students head to the RAHC each year for training, spending time at Valley Baptist Medical Center, Su Clinica Familiar and other clinical sites throughout the Valley. The RAHC’s Medical Education Division in Harlingen has classrooms, a medical library, a clinical simulation center and other resources to support students’ training. In addition to students who are based at the RAHC full time, San Antonio-based students travel to Harlingen to complete specific rotations or take part in the South Texas Environmental Education and Research (STEER) program. The RAHC also offers an internal medicine residency program, which has graduated dozens of residents since its creation. Through the RAHC, UT Health Science Center dental students complete required South Texas rotations at various Su Clinica Familiar sites and the Brownsville Community Health Center.

The Regional Campus in Laredo (http://studentservices.uthscsa.edu/cgi_laredo.aspx) offers educational programs that serve Laredo and the surrounding area. These include:

STEER (http://steer.uthscsa.edu): The School of Medicine’s Department of Family and Community Medicine offers the South Texas Environmental Education and Research (STEER) program. Through lectures, field work and hands-on training, students from the UT Health Science Center, other areas of Texas, throughout the United States as well as Mexico learn how environmental factors such as water and air quality, sanitation, culture, herbal remedies and animal-borne diseases can affect public and community health. The program is also the foundation of the four-year M.D./M.P.H. program offered in collaboration with the UT School of Public Health. The four-week, fourth-year School of Medicine elective and/or M.P.H. practicum is run seven to eight times per year.

Dental Residents & Student Training: The Dental School provides dental education opportunities for UT Health Science Center dental residents in collaboration with a number of clinical partners in Laredo. Currently, residency training in pediatric dentistry is based at the Laredo Health Department. Residents from San Antonio programs in prosthodontics and periodontics rotate to Laredo in collaboration with Gateway Community Health Center. Residents in public health dentistry from San Antonio rotate to Laredo through an agreement with United Independent School District. Senior dental students rotate to either the Laredo Health Department or the Gateway Community Health Center as part of a required Senior South
Texas rotation. Dental students also participate in elective programs at Mercy Ministries of Laredo and the Peñitas West Colonia/Bruni Vergara Community Center during the summer months each year. The didactic training component of these programs is provided at the Laredo Regional Campus through videoconferencing.

Teaching Affiliates - San Antonio

Some members of the staff of our teaching affiliates hold joint appointments in the Dental School, Graduate School of Biomedical Sciences, School of Medicine, or School of Nursing and participate in educational research programs. These institutions constitute an important resource for training students and provide needed laboratory space for conducting research.

University Hospital, the teaching hospital and Level I trauma center owned by Bexar County’s University Health System (http://www.universityhealthsystem.com), adjoins the Health Science Center (http://www.uthscsa.edu) and is connected to the School of Medicine building at several levels. The 498-bed facility will significantly expand in early 2014, with the opening of a new 10-story tower adjacent to the existing hospital. The new tower includes an 88-bed Emergency Center, two floors of operating suites and six floors of private patient rooms. University Hospital is San Antonio’s only magnet hospital and has approved post-graduate training programs in anesthesiology, surgery, internal medicine, obstetrics/gynecology, ophthalmology, orthopedic surgery, otolaryngology/head-and-neck surgery, neurosurgery, thoracic surgery, pathology, pediatrics, rehabilitation medicine, psychiatry, radiology, urology, and family practice, as well as more than 20 additional subspecialty residencies and fellowships.

University Health System’s Robert B. Green Campus downtown is an outpatient health center featuring more than 103 primary, specialty and urgent care clinics. More than 300,000 outpatient visits are conducted there each year. A new six-story advanced clinical pavilion will open on the Robert B. Green campus in early 2013.

The South Texas Veterans Health Care System (STVHCS) (http://www2.va.gov/directory/guide/facility.asp?id=115) is comprised of two inpatient campuses: the Audie L. Murphy Memorial VA Hospital in San Antonio and the Kerrville VA Hospital in Kerrville, Texas. South Texas provides medical, surgical, and psychiatric health services for approximately 100,000 veterans. The VA Hospital in San Antonio is linked to University Hospital by a crosswalk.

CHRISTUS Santa Rosa (http://www.christussantarosa.org) is a Catholic, faith-based, nonprofit health and wellness ministry dedicated to providing the highest quality medical care and services available. As one of the top health care organizations in South Central Texas, CHRISTUS Santa Rosa has five hospital campuses located in the South Texas Medical Center, New Braunfels, Westover Hills, and a short-stay surgical hospital in Alamo Heights. CHRISTUS Santa Rosa has an extensive medical staff, a wide variety of primary care providers, an extensive offering of specialty care, and multiple programs in place to benefit the community. Complete health care services offered include but are not limited to: cardiology, bariatric surgery, gastroenterology, geriatrics, obstetrics and gynecology, orthopedics, outpatient rehabilitation, and wound care and hyperbaric treatment.

San Antonio Military Medical Center (SAMMC) (http://www.sammc.amedd.army.mil) located at Fort Sam Houston in San Antonio is the largest inpatient medical facility in the Department of Defense (DoD). It plays a critical role in graduate medical education and research and patient care, including for wounded service members. SAMMC is home to the DoD’s only U.S. Army Institute for Surgical Research Burn Center and the only DoD Level 1 Trauma Center in the U.S. The hospital staff provides inpatient care in a 2.1 million-square-foot, 425-bed state-of-the-art medical treatment facility. The hospital, formerly known as Brooke Army Medical Center (BAMC), renamed SAMMC is the largest of the six treatment facilities in San Antonio under the BAMC command. Other facilities falling under BAMC include the Center for the Intrepid, Fort Sam Houston Clinic, McWethy Troop Medical Clinic, Taylor Burk Clinic at Camp Bullis, and the Schertz Medical Home. SAMMC sustains more than 89 accredited educational programs.

Baptist Health System (http://baptisthealthsystem.com/home.aspx) is a trusted provider of health care in San Antonio and South Texas. The System includes five acute-care hospitals (Baptist Medical Center, Mission Trail Baptist Hospital, North Central Baptist Hospital, Northeast Baptist Hospital, and St. Luke’s Baptist Hospital), which offer 1,674 licensed beds. All five hospitals have earned Accredited Chest Pain Center designation, as well as Primary Stroke Center Certification. The system also includes Baptist Regional Children’s Center, Baptist Breast Center, HealthLink wellness and fitness center, Baptist M&S Imaging Centers, community health and wellness programs, ambulatory services, rehabilitation services, medical office buildings, San Antonio AirLIFE air medical transport, School of Health Professions, and other health-related services and affiliations.

The San Antonio Metropolitan Health District (http://www.sanantonio.gov/health/About-Us.html) /Ricardo Salinas Clinic provides training opportunities for pediatric dentistry residents and dental students under the supervision of Pediatric Dentistry faculty. Pregnant women, young mothers, and children are the primary users of medical and WIC facilities of the Center. Close interactions between the Medical and Dental/WIC clinics promote a significant opportunity to emphasize the relationship between oral health and general health.

The Texas Diabetes Institute (http://www.universityhealthsystem.com/research-diabetes?gclid=CKCo3ZGO4RACFCfTeAdVHeb1w), another component of the University Health System (http://www.universityhealthsystem.com), is located in west San Antonio. The campus includes the Village of Hope, an ambulatory center for children with developmental disabilities, and an outpatient hemodialysis unit. The Texas Diabetes Institute offers all specialty services related to diabetes prevention and treatment, and is home to one the nation’s leading diabetes research centers. University Health System’s ambulatory network includes 16 other clinic locations throughout the community.

The University of Texas at San Antonio (UTSA) (http://www.utsa.edu) is one of nine academic universities and six health institutions in the UT System. As a multicultural institution, UTSA aims to be a national research university providing access to educational excellence and preparing citizen leaders for the global environment. UTSA serves nearly 31,000 students in more than 130 degree programs. Its students and scholars often collaborate with the UT Health Science Center community through educational, research and community outreach projects in a variety of disciplines.

Clarity Child Guidance Center (CGC) (http://www.claritycgc.org) is a nonprofit mental health treatment center providing programs designed specifically for children ages 3-17 suffering from emotional and behavioral difficulties. The facility includes a 52-bed psychiatric hospital and separate outpatient treatment center to provide acute and crisis assistance 24 hours a day, seven days a week; sub-acute residential and day treatment; child, adolescent and family therapy; medication management; psychological
assessments; psychiatric evaluations; developmental assessments; neuropsychological assessments; and substance abuse evaluations. Clarity CGC incorporates a multi-disciplinary team approach, including board certified child/adolescent psychiatrists, nurses, psychologists, social workers, therapists, teachers, and aides. Through an affiliation agreement with the Health Science Center, Clarity CGC is a training site for child psychiatry residents and clinical psychology residents. Social workers and special education and nursing students from several area universities gain clinical experience at this facility as well.

An affiliation agreement is maintained between the UT Health Science Center San Antonio (http://www.uthscsa.edu) and the Texas Biomedical Research Institute (http://tbibiomed.org/About). This agreement allows the two institutions to share facilities and faculties. The Texas Biomedical Research Institute staff works primarily in the fields of genetics, virology and immunology, and animal models of human diseases. The Institute has 527,000 square feet of offices, laboratories, and animal space. A large indoor and outdoor animal facility houses a primate colony and other animals to support the biomedical research effort.

An agreement between the Health Science Center (http://www.uthscsa.edu) and the Southwest Research Institute (http://www.swri.org) allows cooperation in research. The Southwest Research Institute, an independent, nonprofit, applied engineering and physical sciences research and development organization, has its headquarters in San Antonio.

The Dental School (http://dental.uthscsa.edu) is affiliated with a number of federally qualified community health centers, local health departments, hospitals, school districts, mental health facilities, military facilities, homeless facilities, faith-based clinics, and nursing homes in San Antonio, Bexar County, and South Texas, as well as U.S. Department of Health and Human Services Indian Health Service (http://www.ihs.gov) facilities located throughout the United States that serve as clinical training sites in: (a) primary care; (b) preventive dentistry; (c) pediatric dentistry; (d) emergency care and hospital dentistry; (e) alternative dental care delivery, using mobile and portable dental equipment at outreach sites; and (f) practice management training in the offices of private practitioners. Predoctoral dental students receive training (required and elective) at the various sites where they are supervised by full and/or part-time faculty as well as adjunct faculty. Postdoctoral dental students from the various general and specialty residency programs receive training in affiliated hospitals and private practices in Texas.

The School of Health Professions (http://www.uthscsa.edu/shp) maintains clinical affiliation agreements with more than 250 clinical sites throughout San Antonio and Texas, where students receive substantial portions of their professional education.

The School of Nursing (http://nursing.uthscsa.edu) is affiliated with more than 300 community facilities that serve as practice sites for graduate and undergraduate students.

Other Affiliated Institutions and Programs

The goal of the South Texas Area Health Education (AHEC) (http://www.uthscsa.edu/cstp) Program is to increase the number of primary care physicians and other health professionals by developing strong “pipeline” programs in the primarily underserved and highly impoverished 38-county region of South Texas. AHEC recruits minority students from disadvantaged backgrounds to participate in mentoring and educational activities designed to prepare and inspire them to enter into the health care field. Programs aim to strengthen science skills and increase the competitive applicant pool of minority students to pursue health professions education. The mission is to improve access to culturally competent and quality primary care through appropriate preparation, composition, and distribution of the health professional workforce in South Texas. AHEC is committed to improving the health status and quality of life for residents of South Texas.

The South Texas Environmental Education and Research Center (STEER) (http://steer.uthscsa.edu) offers an elective course in environmental and border health in Laredo, for medical students and residents, and students in other health care fields. STEER also is involved in research and community activities such as a study of asthma among schoolchildren, and a project to help residents in border colonies chlorinate their drinking water. The Center began in 1996 with funding from the South Texas/Border Region Health Education Initiative.

UTHSCSA Academic Calendars

The HSC maintains eight separate academic calendars to accommodate the professional and clinical needs of programs within the five schools. These are created as a result of collaboration between the academic programs, deans’ offices, and Office of the Registrar. Current academic calendars are published in this Catalog, and past, current, and future tentative calendars are published on the Office of the Registrar website (http://students.uthscsa.edu/registrar/2013/04/academic-calendar).

Dental School - Pre-Doctoral Program

Dental School - Pre-Doctoral Program

Academic Calendar 2013-2014

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<tr>
<th>Date</th>
<th>Event</th>
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<tr>
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<td>Web Registration Begins</td>
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<td>Monday, February 17, 2014</td>
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<td>Monday, March 17, 2014</td>
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<td>Friday, May 09, 2014</td>
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<tr>
<td>Friday, June 27, 2014</td>
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### Spring 2014

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**Dental School - Dental Hygiene Program**

**Dental School - Dental Hygiene Program**

**Academic Calendar 2013-2014**

**Fall 2013**

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Graduate School of Biomedical Sciences

Graduate School of Biomedical Sciences
Tentative Academic Calendar 2013-2014

### Fall 2013

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<td>Thursday, January 09, 2014</td>
<td>Term Begins (Official 1st Class Day)</td>
<td>All</td>
</tr>
<tr>
<td>Monday, January 20, 2014</td>
<td>University Holiday</td>
<td>All</td>
</tr>
<tr>
<td>Monday, January 27, 2014</td>
<td>Census Date</td>
<td>All</td>
</tr>
<tr>
<td>Monday, February 17, 2014</td>
<td>University Holiday</td>
<td>All</td>
</tr>
<tr>
<td>Monday, March 10, 2014</td>
<td>Spring Break Begins</td>
<td>All</td>
</tr>
<tr>
<td>Friday, March 14, 2014</td>
<td>Spring Break Ends</td>
<td>All</td>
</tr>
<tr>
<td>Friday, May 09, 2014</td>
<td>Term Ends</td>
<td>Graduating Students</td>
</tr>
<tr>
<td>Wednesday, May 14, 2014</td>
<td>Final Grades Due</td>
<td>Graduating Students</td>
</tr>
<tr>
<td>Friday, May 23, 2014</td>
<td>Graduation Ceremony</td>
<td>Graduating Students</td>
</tr>
<tr>
<td>Monday, May 26, 2014</td>
<td>University Holiday</td>
<td>All</td>
</tr>
<tr>
<td>Thursday, June 27, 2013</td>
<td>Web Registration Ends</td>
<td>All Except OT1, OT3, PA3, PT3</td>
</tr>
<tr>
<td>Monday, July 01, 2013</td>
<td>Term Begins (Official 1st Class Day)</td>
<td>All Except OT 1 &amp; 3; PA3; PT3</td>
</tr>
<tr>
<td>Monday, July 01, 2013</td>
<td>Orientation Begins</td>
<td>New Students</td>
</tr>
<tr>
<td>Tuesday, July 02, 2013</td>
<td>Orientation Ends</td>
<td>New Students</td>
</tr>
<tr>
<td>Thursday, July 04, 2013</td>
<td>University Holiday</td>
<td>All</td>
</tr>
<tr>
<td>Wednesday, July 17, 2013</td>
<td>Census Date</td>
<td>All Except OT 1 &amp; 3; PA3; PT3</td>
</tr>
<tr>
<td>Thursday, July 25, 2013</td>
<td>Web Registration Ends</td>
<td>PT3</td>
</tr>
<tr>
<td>Monday, July 29, 2013</td>
<td>Term Begins (Official 1st Class Day)</td>
<td>PT3</td>
</tr>
<tr>
<td>Tuesday, August 13, 2013</td>
<td>Census Date</td>
<td>PT3</td>
</tr>
<tr>
<td>Thursday, August 15, 2013</td>
<td>Web Registration Ends</td>
<td>OT1</td>
</tr>
<tr>
<td>Monday, August 19, 2013</td>
<td>Term Begins (Official 1st Class Day)</td>
<td>OT1</td>
</tr>
<tr>
<td>Thursday, August 22, 2013</td>
<td>Web Registration Ends</td>
<td>PA3</td>
</tr>
<tr>
<td>Monday, August 26, 2013</td>
<td>Term Begins (Official 1st Class Day)</td>
<td>PA3</td>
</tr>
<tr>
<td>Monday, September 02, 2013</td>
<td>University Holiday</td>
<td>All</td>
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</tbody>
</table>

School of Health Professions

School of Health Professions
Fall 2013

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wednesday, May 01, 2013</td>
<td>Web Registration Begins</td>
<td>All</td>
</tr>
<tr>
<td>Thursday, June 27, 2013</td>
<td>Web Registration Ends</td>
<td>All Except OT1, OT3, PA3, PT3</td>
</tr>
<tr>
<td>Monday, July 01, 2013</td>
<td>Term Begins (Official 1st Class Day)</td>
<td>All Except OT 1 &amp; 3; PA3; PT3</td>
</tr>
<tr>
<td>Monday, July 01, 2013</td>
<td>Orientation Begins</td>
<td>New Students</td>
</tr>
<tr>
<td>Tuesday, July 02, 2013</td>
<td>Orientation Ends</td>
<td>New Students</td>
</tr>
<tr>
<td>Thursday, July 04, 2013</td>
<td>University Holiday</td>
<td>All</td>
</tr>
<tr>
<td>Wednesday, July 17, 2013</td>
<td>Census Date</td>
<td>All Except OT 1 &amp; 3; PA3; PT3</td>
</tr>
<tr>
<td>Thursday, July 25, 2013</td>
<td>Web Registration Ends</td>
<td>PT3</td>
</tr>
<tr>
<td>Monday, July 29, 2013</td>
<td>Term Begins (Official 1st Class Day)</td>
<td>PT3</td>
</tr>
<tr>
<td>Tuesday, August 13, 2013</td>
<td>Census Date</td>
<td>PT3</td>
</tr>
<tr>
<td>Thursday, August 15, 2013</td>
<td>Web Registration Ends</td>
<td>OT1</td>
</tr>
<tr>
<td>Monday, August 19, 2013</td>
<td>Term Begins (Official 1st Class Day)</td>
<td>OT1</td>
</tr>
<tr>
<td>Thursday, August 22, 2013</td>
<td>Web Registration Ends</td>
<td>PA3</td>
</tr>
<tr>
<td>Monday, August 26, 2013</td>
<td>Term Begins (Official 1st Class Day)</td>
<td>PA3</td>
</tr>
<tr>
<td>Monday, September 02, 2013</td>
<td>University Holiday</td>
<td>All</td>
</tr>
<tr>
<td>Date</td>
<td>Event</td>
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</tr>
<tr>
<td><strong>Weekday, September 04, 2013</strong></td>
<td>Census Date OT1</td>
<td></td>
</tr>
<tr>
<td><strong>Weekday, September 11, 2013</strong></td>
<td>Census Date PA3</td>
<td></td>
</tr>
<tr>
<td><strong>Thursday, September 19, 2013</strong></td>
<td>Term Begins (Official 1st Class Day) OT3</td>
<td></td>
</tr>
<tr>
<td><strong>Thursday, September 26, 2013</strong></td>
<td>Web Registration Ends OT3</td>
<td></td>
</tr>
<tr>
<td><strong>Wednesday, October 02, 2013</strong></td>
<td>Census Date OT3</td>
<td></td>
</tr>
<tr>
<td><strong>Thursday, November 28, 2013</strong></td>
<td>University Holiday All Except PA3</td>
<td></td>
</tr>
<tr>
<td><strong>Friday, November 29, 2013</strong></td>
<td>University Holiday All Except PA3</td>
<td></td>
</tr>
<tr>
<td><strong>Friday, December 13, 2013</strong></td>
<td>Term Ends All Except PA 1 &amp; 2; PT3; OT3; Resp. Care</td>
<td></td>
</tr>
<tr>
<td><strong>Tuesday, December 17, 2013</strong></td>
<td>Final Grades Due 2013 PA 1 &amp; 2; PT3; OT3; Resp. Care</td>
<td></td>
</tr>
<tr>
<td><strong>Friday, December 20, 2013</strong></td>
<td>Term Ends PA 1 &amp; 2; PT3; OT3; Resp. Care TA1</td>
<td></td>
</tr>
<tr>
<td><strong>Saturday, December 21, 2013</strong></td>
<td>Graduation (No Ceremony) Graduating Students</td>
<td></td>
</tr>
<tr>
<td><strong>Monday, December 23, 2013</strong></td>
<td>Final Grades Due PA 1 &amp; 2; PT3; OT3; Resp. Care TA1</td>
<td></td>
</tr>
<tr>
<td><strong>Monday, December 23, 2013</strong></td>
<td>University Holiday All</td>
<td></td>
</tr>
<tr>
<td><strong>Tuesday, December 24, 2013</strong></td>
<td>University Holiday All</td>
<td></td>
</tr>
<tr>
<td><strong>Wednesday, December 25, 2013</strong></td>
<td>University Holiday All</td>
<td></td>
</tr>
<tr>
<td><strong>Thursday, December 26, 2013</strong></td>
<td>University Holiday All</td>
<td></td>
</tr>
<tr>
<td><strong>Friday, December 27, 2013</strong></td>
<td>University Holiday All</td>
<td></td>
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<tr>
<td><strong>Monday, December 30, 2013</strong></td>
<td>University Holiday All</td>
<td></td>
</tr>
<tr>
<td><strong>Tuesday, December 31, 2013</strong></td>
<td>University Holiday All</td>
<td></td>
</tr>
<tr>
<td><strong>Wednesday, January 01, 2014</strong></td>
<td>University Holiday All</td>
<td></td>
</tr>
</tbody>
</table>

1 Grades are also due for any and all December graduates regardless of program

**Spring 2014**

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Friday, November 01, 2013</strong></td>
<td>Web Registration Begins All</td>
</tr>
<tr>
<td><strong>Thursday, January 02, 2014</strong></td>
<td>Web Registration Ends All</td>
</tr>
<tr>
<td><strong>Friday, January 03, 2014</strong></td>
<td>Orientation New Students</td>
</tr>
<tr>
<td><strong>Monday, January 06, 2014</strong></td>
<td>Term Begins (Official 1st Class Day) All</td>
</tr>
<tr>
<td><strong>Monday, January 20, 2014</strong></td>
<td>University Holiday All</td>
</tr>
<tr>
<td><strong>Wednesday, January 22, 2014</strong></td>
<td>Census Date All</td>
</tr>
<tr>
<td><strong>Monday, February 17, 2014</strong></td>
<td>University Holiday All</td>
</tr>
<tr>
<td><strong>Monday, March 10, 2014</strong></td>
<td>Spring Break Begins All Except PA2 &amp; PA3</td>
</tr>
<tr>
<td><strong>Friday, March 14, 2014</strong></td>
<td>Spring Break Ends All Except PA2 &amp; PA3</td>
</tr>
<tr>
<td><strong>Friday, March 28, 2014</strong></td>
<td>Term Ends OT3</td>
</tr>
<tr>
<td><strong>Tuesday, April 01, 2014</strong></td>
<td>Final Grades Due OT3</td>
</tr>
<tr>
<td><strong>Wednesday, May 14, 2014</strong></td>
<td>Term Ends All Other Graduating Students except EHS; Toxicology Students</td>
</tr>
<tr>
<td><strong>Friday, May 16, 2014</strong></td>
<td>Final Grades Due Graduating Students; Toxicology Students</td>
</tr>
<tr>
<td><strong>Sunday, May 25, 2014</strong></td>
<td>Graduation Ceremony Graduating Students</td>
</tr>
<tr>
<td><strong>Monday, May 26, 2014</strong></td>
<td>University Holiday All</td>
</tr>
<tr>
<td><strong>Friday, June 20, 2014</strong></td>
<td>Term Ends Graduating EHS Students; All Continuing Students Except OT2 &amp; PT2</td>
</tr>
<tr>
<td><strong>Tuesday, June 24, 2014</strong></td>
<td>Final Grades Due Graduating EHS Students; All Continuing Students Except OT2 &amp; PT2</td>
</tr>
<tr>
<td><strong>Wednesday, January 01, 2014</strong></td>
<td>Web Registration Ends MD Year 2</td>
</tr>
<tr>
<td><strong>Monday, June 24, 2013</strong></td>
<td>Orientation MD Year 4</td>
</tr>
<tr>
<td><strong>Monday, July 01, 2013</strong></td>
<td>Term Begins (Official 1st Class Day) MD Year 4</td>
</tr>
<tr>
<td><strong>Tuesday, July 02, 2013</strong></td>
<td>Census Date MD Year 3</td>
</tr>
<tr>
<td><strong>Thursday, July 04, 2013</strong></td>
<td>University Holiday MD Year 2</td>
</tr>
<tr>
<td><strong>Wednesday, July 10, 2013</strong></td>
<td>Census Date MD Year 2</td>
</tr>
<tr>
<td><strong>Wednesday, July 17, 2013</strong></td>
<td>Census Date MD Year 4</td>
</tr>
<tr>
<td><strong>Mon.-Fri., July 22-26, 2013</strong></td>
<td>Orientation MD Year 1</td>
</tr>
<tr>
<td><strong>Thursday, July 25, 2013</strong></td>
<td>Web Registration Ends MD Year 1</td>
</tr>
</tbody>
</table>

### School of Medicine

**Academic Calendar 2013-2014**

- **Wednesday, May 01, 2013** Web Registration Begins MD Years 1, 2, & 4
- **Monday, June 17, 2013** Term Begins (Official 1st Class Day) MD Year 3
- **Monday, June 17, 2013** Web Registration Ends for Pd. 1 MD Year 4
- **Thursday, June 20, 2013** Web Registration Ends MD Year 2
- **Monday, June 24, 2013** Orientation MD Year 4
- **Monday, July 01, 2013** Term Begins (Official 1st Class Day) MD Year 2
- **Tuesday, July 02, 2013** Census Date MD Year 3
- **Thursday, July 04, 2013** University Holiday MD Year 2
- **Wednesday, July 10, 2013** Census Date MD Year 2
- **Wednesday, July 17, 2013** Census Date MD Year 4
- **Mon.-Fri., July 22-26, 2013** Orientation MD Year 1
- **Thursday, July 25, 2013** Web Registration Ends MD Year 1
School of Nursing

School of Nursing

Academic Calendar 2013-2014

Fall 2013

Monday, July 01, 2013  Web Registration Begins  All
Thursday, August 22, 2013  Web Registration Ends  All
Thursday, August 22, 2013  Orientation Begins  New Students
Friday, August 23, 2013  Orientation Ends  New Students
Monday, August 26, 2013  Term Begins (Official 1st Class Day)  All
Monday, September 02, 2013  University Holiday  All
Wednesday, September 11, 2013  Census Date  All
Thursday, November 28, 2013  University Holiday  All
Friday, December 13, 2013  Last Day of Fall Classes  All
Saturday, December 14, 2013  Graduation (No Ceremony)  Graduating Students
Monday, December 23, 2013  University Holiday  All
Tuesday, December 24, 2013  University Holiday  All
Wednesday, December 25, 2013  University Holiday  All
Thursday, December 26, 2013  University Holiday  All
Friday, December 27, 2013  University Holiday  All
Monday, December 30, 2013  University Holiday  All
Tuesday, December 31, 2013  University Holiday  All
Wednesday, January 01, 2014  University Holiday  All
Monday, January 06, 2014  Classes Resume  All
Monday, January 20, 2014  University Holiday  MD Year 1 & 2
Wednesday, January 22, 2014  Census Date  All
Monday, February 17, 2014  University Holiday  MD Year 1 & 2
Monday, March 10, 2014  Spring Break Begins  MD Year 1
Friday, March 14, 2014  Spring Break Ends  MD Year 1
Friday, May 02, 2014  Official Last Class Day  MD Year 4
Tuesday, May 06, 2014  Final Grades Due  MD Year 4
Friday, May 23, 2014  Official Last Class Day  MD Year 1
Saturday, May 24, 2014  Graduation Ceremony  Graduating Students
Wednesday, May 28, 2014  Final Grades Due  MD Year 1
Friday, June 20, 2014  Official Last Class Day  MD Year 2 & 3
Tuesday, June 24, 2014  Final Grades Due  MD Year 2
Monday, June 30, 2014  Term Ends  All
Wednesday, July 30, 2014  Final Grades Due  MD Year 3

Spring 2014

Friday, November 01, 2013  Web Registration Begins  All

Monday, July 29, 2013  Term Begins (Official 1st Class Day)  MD Year 1
Tuesday, August 13, 2013  Census Date  MD Year 1
Monday, September 02, 2013  University Holiday  MD Year 1 & 2
Thursday, November 28, 2013  University Holiday  MD Year 1 & 2
Friday, November 29, 2013  University Holiday  MD Year 1 & 2
Friday, December 13, 2013  Last Day of Fall Classes  All
Saturday, December 14, 2013  Graduation (No Ceremony)  Graduating Students
Monday, December 23, 2013  University Holiday  All
Tuesday, December 24, 2013  University Holiday  All
Wednesday, December 25, 2013  University Holiday  All
Thursday, December 26, 2013  University Holiday  All
Friday, December 27, 2013  University Holiday  All
Monday, December 30, 2013  University Holiday  All
Tuesday, December 31, 2013  University Holiday  All
Wednesday, January 01, 2014  University Holiday  All
Monday, January 06, 2014  Classes Resume  All
Monday, January 20, 2014  University Holiday  MD Year 1 & 2
Wednesday, January 22, 2014  Census Date  All
Monday, February 17, 2014  University Holiday  MD Year 1 & 2
Monday, March 10, 2014  Spring Break Begins  MD Year 1
Friday, March 14, 2014  Spring Break Ends  MD Year 1
Friday, May 02, 2014  Official Last Class Day  MD Year 4
Tuesday, May 06, 2014  Final Grades Due  MD Year 4
Friday, May 23, 2014  Official Last Class Day  MD Year 1
Saturday, May 24, 2014  Graduation Ceremony  Graduating Students
Wednesday, May 28, 2014  Final Grades Due  MD Year 1
Friday, June 20, 2014  Official Last Class Day  MD Year 2 & 3
Tuesday, June 24, 2014  Final Grades Due  MD Year 2
Monday, June 30, 2014  Term Ends  All
Wednesday, July 30, 2014  Final Grades Due  MD Year 3
### Programs of Study

The University of Texas Health Science Center at San Antonio (HSC) offers degrees in health-related fields across five schools: The Dental School, Graduate School of Biomedical Sciences, School of Medicine, School of Health Professions, and School of Nursing.

#### Dental School

**Bachelor of Science**
- Dental Hygiene

#### Certificates
- Dental Diagnostic Sciences
- Endodontics
- Orthodontics and Dentofacial Orthopedics
- Pediatric Dentistry
- Periodontics
- Prosthodontics

#### Master of Science
- Dental Hygiene
- Dental Science

#### Professional
- Doctor of Dental Surgery
- Doctor of Dental Surgery/Doctor of Philosophy (DDS/PhD)

#### Graduate School of Biomedical Sciences

**Certificate**
- Cancer Prevention
- Translational Science

**Master of Science**
- Biochemistry
- Biomedical Engineering
- Cellular and Structural Biology
- Clinical Investigation
- Medical Health Physics
- Medical Physics
- Microbiology and Immunology
- Molecular Medicine
- Pharmacology
- Physiology

**Doctor of Philosophy**
- Biomedical Engineering
- Biochemistry
- Cellular and Structural Biology
- Microbiology and Immunology
- Molecular Medicine
- Pharmacology
- Physiology
- Radiological Science

#### School of Health Professions

**Bachelor of Science**
- Clinical Laboratory Science
- Emergency Health Sciences
- Respiratory Care

**Certificates**
- Clinical Laboratory Sciences
- Clinical Laboratory Sciences: Clinical Chemistry
University Admissions Policy

UNIVERSITY DECISION

It is the policy of The University of Texas Health Science Center at San Antonio (HSC) to admit applicants who declare their intention to enroll in a school upon satisfactory completion of all admission requirements set forth by the institution and schools. Schools admit qualified applicants into the term for which they applied at their discretion, based on admission requirements and other standards they deem appropriate.

Revisions to admission policies are reflected in the “Admissions Criteria Report,” submitted annually to The University of Texas System Board of Regents in Accordance with Texas Education Code 51.352 (http://www.statutes.legis.state.tx.us/Docs/ED/htm/ED.51.htm) which requires the governing board to “set campus admission standards consistent with the role and mission of the institution,” and with Texas Education Code, 51.808 (http://www.statutes.legis.state.tx.us/Docs/ED/htm/ED.51.htm), which requires each institution to adopt written admission policies. The HSC admission policies are consistent with the requirements of these laws, other applicable federal and state laws, and the Texas Higher Education Coordinating Board rules.

PERTINENT INFORMATION

The Office of the Registrar (http://students.uthscsa.edu/registrar) has the responsibility for ensuring that the institutional admission requirements for each student’s admission are satisfied as a condition for students to be eligible to register. Please note that for applicants without a Bachelor’s degree awarded in the state of Texas from a regionally accredited institution, Texas Core courses must be fulfilled before the first day of class or earlier. Please refer to the Credit Hours Policy for more detailed information. The respective Admissions Office within each school has the responsibility for ensuring that the schools’ admission requirements and standards for each student’s admission are satisfied. In some instances, programs may require that Texas Core courses and other pre-requisites be met at the time of admission. The school has the responsibility of reviewing admission requirements on an annual basis to ensure that they are compatible with the role and mission of the HSC. Each school’s and program’s admissions requirements are located under the school’s section of this Catalog.

DEFINITION OF TERMS

Academic Texas Core Curriculum

As defined by the Texas Education Code 61.821 (http://www.statutes.legis.state.tx.us/Docs/ED/htm/ED.61.htm), it is “the curriculum in liberal arts, humanities, and sciences and political, social and cultural history that all undergraduate students of an institution of higher education are required to complete before receiving an academic undergraduate degree.”

Degree-Seeking Student

Students enrolled in courses for credit who are recognized by the institution as seeking a degree or formal award.

Exceptional Admission Student

Students admitted who do not meet the requirement for admission as Regular Students, but can present sufficient evidence indicating their capability to do university level work.
Non-Degree Seeking Student
A student enrolled in courses for credit who is not recognized by the institution as seeking a degree or formal award.

Matriculation
In its broadest sense, it means to be registered or added to a list. It refers to the formal process of entering a university, or of becoming eligible to enter by acquiring the prerequisites. When a student wishes to become a matriculated student, they must follow the admission requirements without exception.

Matriculated
A student who has been accepted into and has enrolled in a degree-granting program.

Regular student
A person who is enrolled or accepted for enrollment at an institution for the purpose of obtaining a degree, certificate, or other recognized educational credential offered by that institution.

Texas Success Initiative (TSI)
TSI is a state-legislated program designed to improve student success in college. It consists of two components: an assessment to diagnose basic reading, writing, math skills and developmental instruction to strengthen academic skills needing improvement.

ADMISSIONS CATEGORIES
Prospective applicants may be admitted to any UT Health Science Center school as regular students under the following conditions:

1. High School Graduate – Graduation from a high school accredited by a state department of education and/or recognized regional accrediting association.
2. GED – Successful completion of the General Education Development test (GED) as certified by a state education agency.
3. College/University Transfer – Prior attendance at a regionally accredited college or university. Under this condition, applicants will not be accepted if they are ineligible to enroll at their previous institutions.

ADMISSIONS/MATRICULATION PROCEDURES
FIRST-TIME APPLICANTS
Prior to enrollment at the HSC, prospective students must complete the following Admission Enrollment Procedures. All applications and supporting documents submitted become the property of the HSC and are not returned to the student.

1. Applicant must submit the official admission application through the designated application service. Those may include the following:
   - American Medical College Application Service (AMCAS (https://www.aamc.org/students/applying/amcas))
   - Effective Fall 2012, for the entering class of Fall 2013, this service (https://www.aamc.org/students/applying/amcas) is utilized by applicants to the MD/PhD program.
   - Associated American Dental Schools Application Service (AADSAS)
   - Non-Texas residents applying to Dental School may apply through AADSAS (https://portal.aadsasweb.org), although they may also apply to TMDSAS (https://www.utsystem.edu/tmdsas) if they prefer.
   - Centralized Application Service for Physician Assistants (CASPA)
   - CASPA (https://portal.caspaonline.org) is an online application used to apply for the Physician Assistant Program at the HSC.
   - All prospective applicants for this program must apply online using this application service.
   - EMBARK
     - Embark (http://www.embark.com/Pages/default.aspx) is an online application for all applicants for the Graduate School of Biomedical Sciences for the exception of the MD/PhD program.
     - The joint degree program available to Medical students uses the American Medical College Application Service (https://www.aamc.org/students/applying/amcas) to apply for this program. Please refer to the website listed above for AMCAS.
   - Nursing Centralized Application Service (NCAS)
     - Applicants for the baccalaureate, Master’s & DNP program for Nursing School should apply use the online application provided by NCAS (http://www.nursingcas.org).
     - Any PhD applicants for nursing should apply online using Embark (See above.)
   - Apply Texas
     - An undergraduate applicant may file, and each institution of higher education shall accept, an application for admission as an entering freshman or undergraduate transfer student that uses the appropriate form adopted under the Texas Education Code 51.762 and 51.763 (http://www.statutes.legis.state.tx.us/Docs/ED/htm/ED.51.htm). The form used to apply to a general academic teaching institution may be filed in either electronic or printed format. An institution of higher education is not prohibited from requiring an applicant to submit additional information within a reasonable time after the institution has received an application using a form adopted under this section.
     - A common application form for undergraduate and graduate applicants to particular programs is available electronically through Apply Texas (http://www.applytexas.org).
     - In addition to other information considered appropriate by the board, the board by rule shall require each institution to collect information regarding gender, ethnicity, and date of birth as part of the application process and report this information to the board.
   - Texas Medical and Dental Schools Application Service (TMDSAS)
     - This service is utilized by applicants to medical and dental school in Texas. All applicants to the School of Medicine must apply through TMDSAS (https://www.utsystem.edu/tmdsas). (Applicants to the MD/PhD program must apply through AMCAS (https://www.aamc.org/students/applying/amcas) as well).
     - All applicants to the Dental School who are Texas residents must also apply through TMDSAS. Non-Texas residents interested in applying to Dental School may apply through AADSAS if they prefer.
8. All accepted applicants intending to enroll are required to have completed immunizations requirements. Each student must submit written and signed documentation by a licensed healthcare provider (RN, NP, PA, or MD) verifying their vaccination status. These are assessed and verified by the Student Health Clinic.

9. All applicants will have holds placed on their records prohibiting registration. These holds exist to ensure the institution's receipt of critical documentation, including, but not limited to, updated immunization records, final and official transcripts from previous institutions attended, criminal background checks, and proof of citizenship. Holds may only be removed by designated officials in the various offices ultimately responsible for tracking and verifying the documentation sought. Documentation may need to be updated and/or resubmitted following breaks in attendance or delays in matriculation due to deferrals.

DEFERRED ADMISSION

Applicants who are offered admission may be granted deferred admission to the subsequent term by the admissions office under the school to which they applied. Under deferred admission, applicants must re-apply to the new term using the same application service and method, re-pay any application fees, and submit updated supporting documentation. Under no circumstances will applications be transferred electronically from one term to the next, nor will new, added or increased application fees be waived. Applicants under deferred admission who fail to re-apply using the same application service and re-pay application fees will not be matriculated into the new term.

DECLINED ADMISSION

Applicants who are offered admission but decline the offer must re-apply to any subsequent term using the same application service and method, re-pay any application fees, and submit updated supporting documentation. This applies regardless of whether the applicant applies to the same program, or a different one. Under no circumstances will applications be transferred electronically from one term to the next, nor will new, added or increased application fees be waived. Applicants who decline an initial offer of admission must re-apply using the appropriate application service and re-pay any application fees in order to be matriculated into the new term, provided an offer of admission is extended under the new application.

ERRONEOUS APPLICATIONS

Applicants who apply to a program and/or particular term in error must re-apply to the intended program and/or term at their expense and in accordance with specified deadlines. Under no circumstances will applications be transferred electronically from one term to the next, nor will new, added or increased application fees be waived. Supporting documentation must be resubmitted with the new application. Deadlines will not be extended to accommodate the corrected application. In cases where deadlines cannot be met or have passed, applicants must apply to the subsequent term by the admissions office under the school to which they applied.

DECLINED ADMISSION

Applicants who are offered admission but decline the offer must re-apply to any subsequent term using the same application service and method, re-pay any application fees, and submit updated supporting documentation. This applies regardless of whether the applicant applies to the same program, or a different one. Under no circumstances will applications be transferred electronically from one term to the next, nor will new, added or increased application fees be waived. Applicants who decline an initial offer of admission must re-apply using the appropriate application service and re-pay any application fees in order to be matriculated into the new term, provided an offer of admission is extended under the new application.

ERRONEOUS APPLICATIONS

Applicants who apply to a program and/or particular term in error must re-apply to the intended program and/or term at their expense and in accordance with specified deadlines. Under no circumstances will applications be transferred electronically from one term to the next, nor will new, added or increased application fees be waived. Supporting documentation must be resubmitted with the new application. Deadlines will not be extended to accommodate the corrected application. In cases where deadlines cannot be met or have passed, applicants must apply to the subsequent term by the admissions office under the school to which they applied.
In general, an application for readmission by a student who has previously withdrawn or has been dismissed is subject to the same requirements, procedures, and acceptance considerations that apply to first-time applicants. Students will be asked to submit a current, updated criminal background check to their designated student affairs dean or other designated official at their own cost. Students may also be asked to submit new official transcripts from any colleges or universities attended since the time of the previous enrollment as well as provide other recent documents required by the schools. Individuals who have completed the first year of a program may be readmitted, at the discretion of the faculty, on a space-available basis.

If the student does not return until one year has elapsed regardless of the reason, he or she will have to re-apply for admission with the burden of proof for eligibility resting on the student. He or she will be competing for admission against students who have formally applied and been granted a bona fide leave of absence by the respective school prior to their absence; and/or all new applicants for admission.

Re-Admission Appeal: Should a student be denied re-admission under this policy, the student may appeal her/his denial of re-admission following the written re-admit appeal policy established by the affected school.

When students interrupt their enrollment at the HSC and return later to complete their plan of study, major curriculum changes may have occurred, affecting the student’s ability to graduate with requisite competencies/knowledge currently implied by the degree or certificate sought.

1. If there have been no curricular changes in the program during the non-enrollment period, the student may remain under the student’s original degree plan.

2. When a student re-enrolls after an interruption of enrollment of more than one year (4 consecutive terms) but less than six years, a conference shall be held between the student and the student’s Program Faculty Advisor or other designated official to determine whether changes in the student’s degree plan are necessary to acquire the competencies and knowledge required by the current degree or certificate:

   A. If course content has changed during the period of non-enrollment, even though course titles have not, the student may be required to repeat such courses, if essential new competencies/knowledge must be acquired.

   B. If program curricula have changed during the period of non-enrollment, the student may be required to follow the current degree plan.

   C. If the student re-enrolls in a different program than the one in which the student was previously enrolled, the student’s new degree plan shall be governed by the degree or certificate requirements in the newly selected program that are in effect at the time of re-enrollment.

   D. It is recommended that, prior to the conference with the student, the person responsible for this function should obtain a copy of the student’s current transcript and current degree audit record to determine the remaining courses that are necessary to omit the requirements of the original degree plan.

Although the university is under no obligation to readmit any student who has withdrawn or has been dismissed, a student may seek readmission for further study by petitioning the school. Whether readmission will be considered at the entry level or an advanced level will be determined on an individual basis and by the school.

RE-ADMISSION – MILITARY SERVICE

In accordance with Section 51.9242 of the Texas Education Code (http://www.statutes.legis.state.tx.us/Docs/ED/htm/ED.51.htm), a student who withdraws from the university in order to perform active military service will be readmitted for any semester or summer session that begins within a year after the student’s release from active service. The student is not required to apply for readmission or pay an application fee, but he or she must be eligible to register for classes the semester or summer session for which readmission is requested. This policy applies to students who withdraw for service with the United States armed forces or a Texas national guard; however, it does not apply to students who withdraw solely to perform one or more training exercises as members of a Texas national guard.

INTERNATIONAL STUDENTS

Prospective students who are not U.S. citizens and do not have permanent resident status are subject to the same requirements, procedures, and acceptance considerations that apply to first-time applicants. Additionally, students will have to meet specified requirements by the Office of International Services (http://www.uthscsa.edu/ois) (OIS) along with the following:

To satisfy immunization requirements, International students must have healthcare services performed and documented by a healthcare professional licensed and practicing in the United States.

International students currently residing abroad should consult with the immigration office prior to making application as a non-degree student. In most instances, only degree-seeking applicants are eligible to apply for the required visa status to initiate study abroad.

Applicants from countries where English is not the native language are required to submit scores on the Test of English as a Foreign Language (TOEFL) or the International English Language Testing System (IELTS). Minimum scores for the Internet-based tests are as follows:

<table>
<thead>
<tr>
<th>TOEFL Exam Component</th>
<th>Accepted Score Range</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reading Skills</td>
<td>15-30</td>
<td>Intermediate to High</td>
</tr>
<tr>
<td>Listening Skills</td>
<td>15-30</td>
<td>Intermediate to High</td>
</tr>
<tr>
<td>Speaking Skills</td>
<td>25-30</td>
<td>Fair to Good</td>
</tr>
<tr>
<td>Writing Skills</td>
<td>25-30</td>
<td>Fair to Good</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>IELTS Exam Component</th>
<th>Accepted Score Range</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Writing Skills</td>
<td>6.5-9.0</td>
<td>Competent User to Expert User</td>
</tr>
<tr>
<td>Listening Skills</td>
<td>6.5-9.0</td>
<td>Competent User to Expert User</td>
</tr>
<tr>
<td>Speaking Skills</td>
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</tr>
<tr>
<td>Reading Skills</td>
<td>6.5-9.0</td>
<td>Competent User to Expert User</td>
</tr>
</tbody>
</table>

Scores on TOEFL and IELTS tests taken more than two years prior to the date of application are not acceptable.
• Countries exempted from the TOEFL and/or IELTS requirement: American Samoa, Australia, Bahamas, Barbados, Belize, Canada (except Quebec), Cayman Islands, Dominica, Federated States of Micronesia, Grenada, Guam, Guyana, Jamaica, Liberia, New Zealand, United Kingdom (all), Trinidad-Tobago, and Virgin Islands.

Transcripts from all previous educational experiences (from secondary schools through any post-secondary educational institutions) that are published in a language other than English language must be accompanied with an attachment which translates verbatim the wording on each document into the English language. Transcripts must be evaluated by an approved current NACES member (http://www.naces.org/members.htm) or AACRAO.

**JOINT ADMISSIONS**

Joint Admissions is a special alliance between a community college/university and the HSC. This partnership is developed to make the student’s transition to the university as smooth as possible. As a community college/university student, joint admission participants can access many of the resources available to university students and receive some university perks before the student actually enrolls at that university.

The benefits to establishing joint admission process are to:

- Often reduce or have no university application fee
- Academic advising from both campuses to ensure the most effective and efficient path to graduation
- Often a university ID; this card will also give the student access to the university library
- Often a free university email account that can be used anywhere
- Easy transferability of courses between the two schools enabling the student to be awarded a degree after leaving the community college/university.

Students must complete an Intent To Enroll Form when they are ready to transfer from the community college/university and provide official transcripts from the community college/university to the Office of the Registrar.

**NON-DEGREE SEEKING ADMISSIONS**

An individual who wishes to enroll in courses offered by the School without entering a certificate or degree program must apply for admission as a non-degree student. In general, a non-degree seeking student will have an academic background similar to those ordinarily admitted to the School as a first time student; course prerequisites and minimum grade point averages (GPA) are generally consistent with the published admissions criteria for each School. Permission to enroll as a non-degree seeking student may be granted by the Dean, Associate Dean, or Department Chair and will be enrolled only if space is available. Currently enrolled students have priority for courses.

Students seeking non-degree student status must:

- Communicate their desire to enroll as a non-degree seeking student to the School
- Students must receive approval by the school
- A student may register as a non-degree student for a maximum of four semesters. Exceptions to this rule will be decided by the School
- Students who seek future enrollment a Certificate or Degree Program may enroll for a maximum of 12 semester credit hours.

- Non-degree seeking students who seek future enrollment in a School’s program may transfer course hours taken as a non-degree student with the approval of the appropriate Director.
- Non-degree seeking students who wish to transfer course hours to degree-seeking programs at a later date must do so within five years of completing the non-degree coursework.
- It is the student’s responsibility to determine if the course is transferable to her or his school.

Students must go through the appropriate non-degree seeking student admissions process, please communicate directly with the School. Students do not have to register consecutively for classes each semester but may skip a semester without penalty.

Course grading policies and standards for non-degree status students are the same as those for regular students. All grades received as a non-degree status student will be included on the student’s transcript and used for computing the cumulative GPA if the student is subsequently admitted to a certificate or degree program.

**ADMISSIONS – CHILDREN OF PUBLIC SERVANTS**

An applicant for undergraduate admission is entitled to automatic admission if the applicant meets any minimum admissions requirements established by this institution and is a child of certain public servants who were killed or sustained a fatal injury in the line of duty.

**ADDITIONAL ADMISSIONS CONSIDERATIONS**

Student admissions committees throughout the university may consider several elements or personal characteristics in the selection of students. The specific elements to be used and the weight applied to each element in the selection of an applicant are the prerogative of the admissions committee of each school or program. It has been clearly documented and widely understood that admissions processes emphasizing performance of applicants on standardized test scores and grade point averages alone do not necessarily result in the admission of a diverse student body. Whenever desired by the schools, candidates will be interviewed prior to making admissions decisions. Elements that may be included in consideration of applicants are:

- Applicant’s goals for future (written personal statement or at interview)
- Awards and honors for academic achievement
- Awards and honors of distinction for humanitarian service
- Awards and honors for public speaking and communication skills
- Race and ethnicity
- Bilingual language ability
- Commitment/desire to serve in a medically underserved region of the state following graduation (written personal statement or at interview)
- Educational attainment of the applicant’s family
- Employment history, especially as it occurred simultaneously with undergraduate academic preparation
- Extracurricular activities
- GPA and standard test scores
- Hometown or county of residence is from medically underserved and/or health professional shortage areas, with particular emphasis on South Texas
- Leadership potential
The University of Texas Health Science Center at San Antonio

DIVERSITY STATEMENT

The University of Texas Health Science Center at San Antonio’s educational programs are designed to meet the health work force needs of Texas. UTHSCSA admissions criteria are aligned to foster the graduation of health professionals who will be responsive to the needs of the increasingly diverse population of the state. The UTHSCSA is committed to the importance of diversity in the recruitment and education of future health professionals and holds that diversity enhances the delivery of care and service to communities across a broad range of racial and ethnic groups, and promotes efforts to reduce health disparities among these groups. A diverse student body raises the cultural competence of all health professional students. Diversity is not solely limited to race and ethnicity, but it also encompasses talents, life skills and special attributes. This commitment to diversity is expressed through the identification, recruitment, selection, matriculation and graduation of qualified health professions students from different racial, ethnic and/or disadvantaged backgrounds. Our goals are for the UTHSCSA student body to mirror the growing diversity of the Texas population and the promotion of understanding, among our students and graduates, of the multiple and varied needs of the individuals and communities that comprise the population of Texas.

ACADEMIC TEXAS CORE CURRICULUM

In compliance with Texas Education Code 61.821 - 61.83 (http://www.statutes.legis.state.tx.us/Docs/ED/htm/ED.61.htm), all undergraduate degree programs at the HSC (i.e., health professions, dental hygiene and nursing) require completion of the HSC Core Curriculum.

For detailed information about the Academic Core Curriculum please reference the Academic Texas Core Curriculum Policy in this Catalog.

STANDARDIZED TESTS

An applicant’s performance on a standardized test may not be used in the admissions or competitive scholarship process for a graduate or professional program as the sole criterion for consideration of the applicant or as the primary criterion to end consideration of the applicant. If an applicant’s performance on a standardized test is used in the admissions or competitive scholarship process, the applicant’s performance must also be used to compare the applicant’s test score with those of other applicants from similar socioeconomic backgrounds to the extent that those backgrounds can be properly determined and identified based on information provided in the institution’s admissions or competitive scholarship process. This does not apply to a standardized test used to measure the English language proficiency of a student who is a graduate of a foreign institution of higher education.

The university may not assign a specific weight to any one factor being considered in the admissions or competitive scholarship process for a graduate or professional program.

In addition to current university requirements for admission, Schools may require that applicants have either:

1. Successfully completed the curriculum requirements for the recommended or advanced high school program or its equivalent
2. Satisfied ACT’s College Readiness Benchmarks on the ACT assessment applicable to the applicant or earned on the SAT assessment a score of at least 1,500 out of 2,400 or the equivalent.

The above requirement may be satisfied if the applicant’s official high school transcript or diploma states that the applicant completed the portion of the recommended or advanced curriculum or its equivalent that was available to the applicant, but was unable to complete the remainder of the curriculum solely because courses necessary to complete the remainder were unavailable to the applicant at the appropriate times in the applicant’s high school career as a result of course scheduling, lack of enrollment capacity, or another cause not within the applicant’s control.

TEXAS SUCCESS INITIATIVE

The Texas Success Initiative (http://www.theceb.state.tx.us/index.cfm?objectid=233A17D9-F3D3-BFAD-DSA76CD8ADD1E3) (TSI) was instituted to ensure that students enrolled in Texas public colleges and universities possess the necessary academic skills to perform effectively in college. As a transfer student, applicants to the undergraduate programs must submit qualifying scores on tests acceptable to the THECB if they were so required when entering their undergraduate institutions. Established cutoff scores on the SAT, ACT or TAKS tests qualify students for exemption. Proof of these scores must be submitted in place of scores on qualifying tests mentioned earlier. Alternative test scores accepted

EQUAL OPPORTUNITY

Admission to and participation in the educational programs and activities of The University of Texas Health Science Center San Antonio shall be open to all qualified individuals regardless of race, color, religion, sex, national origin or disability. Preference should be given to Texas residents over non-residents.

RACE AND ETHNICITY IN ADMISSION

As authorized by The University of Texas System Board of Regents, race and ethnicity have been added to the pool of non-cognitive factors considered for admissions decision to UTHSCSA academic programs. As state law requires one-year notification of changes to admissions criteria prior to their use in admission decision, the addition was effective beginning with academic year 2006-2007.

• Personal interview
• Prior experience in providing health care related services
• Prior military service with training and experience in health- care-related area
• Public/community service volunteer activities
• Reference letters or recommendations
• Research accomplishments
• Socioeconomic history (educationally and/or economically disadvantaged)
• Standardized entrance exams (e.g. Graduate Record Examination [GRE]; Medical College Admissions Test [MCAT]; Dental Admissions Test [DAT])
• Successful experience in overcoming adverse personal, family, or life conditions/experiences
• Successful graduation from another nationally accredited health-care-related curriculum. (For example, a respiratory therapist might apply for admission to medical school; or a dental hygienist for admission to dental school, or a surgical technician might apply for admission to nursing school; an Emergency Medical Technician may potentially apply to Physician’s Assistant program, medical school, nursing school, etc.)
• Texas residency status, including permanent residency status in some programs
• Volunteer activities in healthcare-related areas and/or the community

• Volunteer activities in healthcare-related areas and/or the community
TRANSFER OF CREDIT

Transfer credit will be determined by the staff of the HSC at the Office of the Registrar (http://students.uthscsa.edu/registrar) in conjunction with the schools, on a course-by-course basis from official transcripts submitted in the competitive admissions process. Course content will be determined by catalog course description or course syllabus. Course acceptability is guided by these criteria:

1. Courses given by regionally accredited institutions are considered for transfer if:
   A. They are acceptable as credit for a bachelor’s degree at a regionally accredited institution.
   B. Course content is at or above the level of courses specified in the HSC requirements for admission.
2. Courses intended for use in a vocational, technical or occupational program normally do not transfer; general courses within this type of program may transfer.
3. Credit on the transcript must appear in semester hours or credits that may be converted to semester hours.
4. Credit by examination courses will not be transferred.
5. Equivalency of course work is determined by content found in catalog course descriptions or syllabi of courses. In case of doubt, departmental faculty will determine equivalency. The final determination is left to the director of the Department.
6. As a general policy, course work with a passing grade may be transferred, but the applicant must keep in mind that admission to the program is on a competitive basis and grades of "F" are calculated into the grade point average.
7. Course hours will be evaluated on a course-by-course basis, but will be transferred as a block of hours and the grades do not calculate into the GPA for the program.
8. Credit will be given for correspondence courses on a select basis.
9. Credit will not be granted for courses completed at institutions not accredited by a regional accrediting agency

For detailed information about the transfer credit please reference the Credit Hours Policy (p. 46).

EXCESS SEMESTER CREDIT HOURS

The State of Texas does not provide funds to The University of Texas Health Science Center at San Antonio for semester credit hours (SCH) earned by resident Texas students (in-state) that exceed certain limits. To offset this loss, the HSC, as permitted by law, will charge tuition at the higher, nonresident (out-of-state) rate to all Texas resident students that exceed these limits.

For detailed information about Excess Hours please reference the Excess Hours Policy (http://catalog.uthscsa.edu/generalinformation/generaladmissionsrequirements/excesscreditichourspolicy).

SIX-DROP RULE

Under Section 51.907 of the Texas Education Code (http://www.statutes.legis.state.tx.us/Docs/ED/htm/ED.51.htm), "an institution of higher education may not permit a student to drop more than six courses, including any course a transfer student has dropped at another institution of higher education. " This statute was enacted by the State of Texas in spring 2007 and applies to students who enroll in a public institution of higher education as first-time freshmen in fall 2007 or later. Any course that a student drops is counted toward the six-course limit if:

1. The student was able to drop the course without receiving a grade or incurring an academic penalty
2. The student’s transcript indicates or will indicate that the student was enrolled in the course
3. The student is not dropping the course in order to withdraw from the institution.

Some exemptions for good cause could allow a student to drop a course without having it counted toward this limit, but it is the responsibility of the student to establish that good cause. Policies and procedures for implementation of this statute are being developed and will be published as soon as they are available. Contact the Office of the Registrar for more information before you drop a course.

A Health Science Center undergraduate student affected by this statute that has attended or plans to attend another institution of higher education should become familiar with that institution’s policies on dropping courses.

THREE-PEAT RULE

Hours earned in a course taken by a student more than twice (known as the "Three-Peat" rule) exceeds the limits set by state law and may not be reported by the HSC for state funding.

Exceptions to this law include:

2. Courses that may be repeated for credit because they involve different or more advanced content each time they are taken.
3. Independent study courses.
4. Special topics and seminar courses.

ACADEMIC FRESH START

The Texas Education Code, Section 51.931 (http://www.statutes.legis.state.tx.us/Docs/ED/htm/ED.51.htm), entitled "Academic Fresh Start" allows a person who is a resident of Texas to apply for undergraduate admission without consideration of previous coursework. Specifically, coursework completed 10 or more years prior to the date of anticipated enrollment will not be considered in the admission decision, nor in evaluation of excess hours under Texas Education Code §54.068 and §61.0595. This allows the student to begin a new course of study without consideration of or penalty for previous college coursework.

An applicant who has earned a baccalaureate degree and applies for admission to a postgraduate or professional program will be evaluated on only the grade point average of the coursework completed for that baccalaureate degree, as well as other criteria stated herein for admission to the postgraduate or professional program.

1. This is an all-or-nothing option. Students are not able to pick and choose which courses to ignore and which courses to count. This option allows for omission of the student’s academic record only. If
the student chooses the "Academic Fresh Start" option, the student does not receive any credit for any courses taken 10 or more years prior to re-enrollment. This means that:
   A. Courses taken previously cannot be used to fulfill new prerequisite requirements.
   B. Courses taken previously cannot be counted towards a new degree.
   C. Courses taken previously will not be counted in the student's GPA calculation.

2. The student must still complete the usual admissions process, including providing information on all colleges or universities previously attended and provide official copies of transcripts from all schools attended.

3. Once the "Right to an Academic Fresh Start" provision has been claimed, and the student has enrolled, the provision cannot be reversed.

4. To request an Academic Fresh Start Form an applicant must submit a complete Admissions Application, a written petition for an Academic Fresh Start and all official transcripts to The Office of the Registrar.

STUDENT HEALTH INSURANCE

Students who matriculate at The HSC are required to obtain medical health insurance coverage, whether privately or through the institution. Confirmation of health insurance coverage is required at the time of registration each term in Student Administration via The Portal (http://inside.uthscsa.edu). Additional information regarding health insurance coverage can be obtained from the website (http://students.uthscsa.edu/studentlife/2013/03/health-insurance) of the Office of Student Life (http://students.uthscsa.edu/studentlife/2013/03/health-insurance).

IMMUNIZATIONS

The immunizations listed below are required of all students. The Board of Regents may require immunizations against additional diseases for some students. Further immunizations may be required by the Board of Regents in times of emergency or epidemic. The cost of all immunizations will be the responsibility of the student and/or dependent.

Hepatitis B Alone or Hepatitis A&B Combo Vaccine

All students at The University of Texas Health Science Center at San Antonio must be immunized against Hepatitis B before contact with patients or any and all other potentially contaminated materials, products, or sources. The UTHSCSA will accept either the standard Hepatitis B (3 injections) or the expedited Hepatitis A&B combo vaccine series (3 injections). The Hepatitis B series can take between 4 to 6 months to complete.

Laboratory report of post-vaccine positive immune serum antibody titer for Hepatitis B will also be accepted.

Bacterial Meningitis

Pursuant to SB 1107 enacted by the State of Texas, all new students enrolling in The UT Health Science Center at San Antonio must provide proof that the meningitis vaccination was administered at least 10 days prior to the first day of the term. Bacterial Meningitis Vaccinations must have been received or renewed within the last 5 years. The legislation provides two exceptions:

1. Students who are over 21 years of age
2. Students taking 100% of classes online

Students who qualify for the above legislative exceptions and wish to exercise those must complete a Meningitis Exemption Form with the Student Health Center. Failure to do so consistent with the noted timeframe will preclude registration.

Tuberculosis

All students must submit one of the following:

1. Proof of a TB skin test (PPD) completed within one year of enrollment, or for those persons with a history of a positive skin test:
   2. Proof of booster shot with either the Td or TdaP within the past 10 years is required. Health care workers who have direct patient contact should get one dose of TdaP. A 2-year interval since the last Td is suggested but not required.

Polio

All students under the age of 18 are required to show proof of polio vaccination.

Measles-Mumps-Rubella

All students must submit one of the following:

1. Proof of vaccination with:
   2. Mumps & Rubella - 1 vaccine each, OR
   3. MMR combo vaccine – 2 doses
   4. Laboratory report of positive immune serum antibody titer for Measles, Mumps, and Rubella.

Varicella (Chicken Pox)

All students must submit one of the following:

1. Documentation of two immunizations administered on or after the first birthday and at least 30 days apart, or
2. Documentation from a health care provider on the date of the previous disease (chicken pox or zoster), or
3. Laboratory report of positive immune serum antibody titer (IgG).

Meningococcal conjugate vaccine quadrivalent

All students must provide proof of vaccination against meningitis. Students must have received the vaccine within five years prior to enrollment. Certain exceptions may apply. Please see:

The Board of Regents may require immunizations against additional diseases for some students. Further immunizations may be required by the Board of Regents in times of emergency or epidemic. The cost of all immunizations will be the responsibility of the student and/or dependent.
Influenza (Flu)
It is optimal to have immunity throughout the flu season, typically October – March. Please check with your school admissions office to determine if it has a particular timeline/deadline, or if you require an exemption. Documentation of receiving the flu vaccination must be received annually. Frequently Asked Questions and Answers about the flu can be found on the CDC Web site http://www.cdc.gov/flu/

RESIDENCY CLASSIFICATION FOR TUITION PURPOSES
Texas law classifies each person who applies for admission to a Texas public college or university as a resident of Texas, a non-resident, or a foreign (international) student. The Office of the Registrar will classify the student based on the Core Residency Questions. How students are classified is important because it determines whether they pay non-resident tuition rates or in-state rates, which are lower.

Independent students who have resided and established domicile in the state of Texas for 12 consecutive months may be eligible to be considered residents of Texas for tuition purposes. Dependent students may base residency on a parent or court-appointed legal guardian. The parent or court-appointed legal guardian, however, must have resided and established domicile in Texas for 12 consecutive months. In the state of Texas, Residency for tuition purposes may not be based on a spouse. When applying for a Residency Reclassification, please submit a completed and signed questionnaire, and required supporting documents as listed on the questionnaire. If you are basing residency on a parent or court-appointed legal guardian, students must submit documents pertaining to the person for which residency is based on. Failure to submit supporting documents will result in a delayed decision.

Individuals who hold eligible visas may also qualify for in-state tuition.

A student who believes the initial classification to be in error, or who believes that residency for tuition purposes has been established subsequent to the initial classification, may request a review by submitting a Residency Questionnaire (http://students.uthscsa.edu/registrar/wp-content/uploads/sites/2/2013/04/ResidencyQuestionnaire.pdf) to the Office of the Registrar. The decision of the Registrar is final and is communicated to the student in writing as soon as possible following a decision.

RESIDENCY RECLASSIFICATIONS
Reclassification as a Non-resident
Persons who have been classified as residents of Texas will be reclassified as non-resident students whenever their status changes, or when it is found to exist, circumstances indicating a change in legal residence to another state. If students who have been classified as residents of Texas are found to have been erroneously classified as a result of an omission or falsification, they will be reclassified as non-residents and will be required to pay the difference between resident and non-resident fees for the semesters for which they were erroneously classified.

Reclassification as a Resident
Persons classified as non-residents upon first enrollment may request reclassification. In order to have residence status reconsidered, students must complete the Core Residency Questions and submit it with the appropriate documentation regarding residency to the Office of the Registrar prior to the first day of class of the semester for which the change is sought. After the form and documentation are reviewed, students are notified in writing by way of an electronic letter of the residence decision.

If students have been erroneously classified as non-residents and subsequently prove to the satisfaction of the University’s residency official that they should have been classified as resident students, they will be reclassified as residents of Texas and will be entitled to a refund of the difference between the resident and non-resident fees for the semesters in which they were erroneously classified.

All students are expected to pay the tuition assessed on or before the payment date for each semester as established by the University. All Residency Questionnaires and forms verifying non-resident tuition exemption status must be submitted prior to the first day of class of the term for which the change is sought. To prevent any delay in enrollment, students are encouraged to submit all forms at least two weeks before registration.

Non-compliance with Institutional Rules and Regulations.
If students have obtained residency classification by virtue of deliberate concealment of facts or misrepresentation of facts, they may be required to repay the difference in tuition rates and may be subject to appropriate disciplinary action, in accordance with the rules and regulations of The University of Texas at Health Science Center. Each situation will be evaluated by administrators of The Office of the Registrar as well as The Vice President for Academic, Faculty and Student Affairs.

Review of Admissions
Each school’s admissions committee or equivalent group of officials must regularly review their respective admissions requirements for compliance and good practices within higher education. In accordance with accrediting standards under the Southern Association of Colleges and Schools, admissions practices must be consistent and carried out based on best practices. Consistency includes holding all applicants to the same admissions requirements.

Equal Opportunity
To the extent provided by applicable law, no person shall be excluded from participation in, denied the benefits of, or be subject to discrimination under, any program, or activity sponsored or conducted by The University of Texas System or any of its institutions on the basis of race, color, national origin, religion, sex, age, veteran status, or disability.

Excess Credit Hours Policy
UNIVERSITY DECISION
The Texas Education Code §54.068 and §61.0595, as well as Texas Administrative Code Chapter 13, Subchapter F, §13.102 through §13.108, indicates that the State of Texas will not provide funds to state institutions of higher education for excess semester credit hours earned by an undergraduate resident student. The Texas Education Code §54.012 specifies that doctoral students who exceed the critical number of semester credit hours are also not funded by the state. Therefore, it is the University’s decision to charge non-resident tuition to any undergraduate or graduate student who has excess credit hours regardless of the student’s residency status, appointment, fellowship or any other circumstance that would normally entitle the student to resident tuition rates, including tuition waivers.
PERTINENT INFORMATION

Undergraduate Students

If a student began undergraduate course work before Fall 1999, the student is exempt from excess hours legislation.

Undergraduate students who enrolled in Fall 1999 or subsequent semesters are considered to be in excess hours if their total attempted semester credit hours exceed more than 45 credit hours beyond the required number of hours for the completion of the degree program in which they are enrolled.

Undergraduate students who enrolled in Fall 2006 or subsequent semesters are considered to be in excess hours if their total attempted semester credit hours exceed more than 30 credit hours beyond the required number of hours for the completion of the degree program in which they are enrolled.

The following courses are exempt from calculation in semester credit hours towards the limit:

• Remedial or developmental courses
• Workforce education courses
• Dual credit courses (as in taken during high school), as well as Advanced Placement credits
• Hours for special topics and seminar courses
• Independent study courses
• Hours for courses that involve different or more advanced content each time they are taken, including but not limited to, individual music lessons, Workforce Education Courses, Manual Special Topics courses (when the topic changes), theater practicum, music performance, ensembles, certain physical education and kinesiology courses, and studio art
• Continuing Education Courses that must be repeated to retain professional certification
• Courses earned as part of a student’s progression towards and completion of a previous bachelor’s degree
• Hours earned by students at private or out-of-state institutions
• Hours earned by examination or similar method by which credit is earned without registering for a course for which tuition is charged

Graduate Students

Hours taken at The UTHSCSA (other than those taken for the MD/DDS professional programs) that exceed the 99-hour or 130-hour limits at the doctoral level may not be reported by The UTHSCSA for state funding. As such, all doctoral students exceeding this limit will be assessed the non-resident tuition rate regardless of their residency status or any appointment, fellowship, or other circumstance that would normally entitle them to resident tuition rates.

DEFINITION OF TERMS

Attempted Credit Hours

For doctoral students, attempted credit hour calculation includes all enrolled courses at The UTHSCSA regardless of grade assignment. For example, if a student takes a course and receives a grade of “incomplete” or “unsatisfactory,” the hours for that course count towards excess hours limits. If a student takes a course and drops it after the Census Date, the hours for that course will also be applied towards excess hour limits. If a student is registering for a dissertation course and gets a grade of “IP” (In Progress) at the end of the term, the hours associated with that course will also be counted towards excess hours limits.

Critical Number

For doctoral students in nursing the number is 99 credit hours; for other basic sciences, the number is 130 credit hours.

Semester Credit Hours

A semester credit hour is defined as nominally one hour of classroom time per week per semester. Thus a class which is held for three hours a week for one semester is a three semester-hour course. However, although most of the courses taken at university are of three semester hours, some may involve more contact time, as in the case of laboratory courses, and some less time, as may be the case in some seminar courses. Such courses carry the three semester-hour weight, but regardless of actual class time, should be considered as comprising one-fifth of the student’s course load.

30-Hour Rule

Undergraduate students initially enrolled as undergraduates in an institution of higher education beginning the 2006 Fall semester and subsequent semesters may not exceed 30 hours more than the minimum number required for completion of their degree program.

45-Hour Rule

Undergraduate students initially enrolling as undergraduate in an institution of higher education beginning the 1999 Fall semester, but no later than the 2006 Summer semester, may not exceed 45 hours more than the minimum number required for completion of their degree program.

99-Hour Rule

Graduate students enrolled in the Nursing PhD program may not exceed total of 99 attempted hours (including earned) in pursuit of the degree. Hours beyond that critical number are unfunded by the state, and so The UTHSCSA assesses non-resident tuition to recuperate the loss of funds and costs associated with educating these unfunded students.

130-Hour Rule

Graduate students enrolled in other PhD programs, including those under The Graduate School of Biomedical Sciences, may not exceed total of 130 attempted hours (including earned) in pursuit of the degree. This includes dissertation and research hours, among others. Hours beyond that critical number are unfunded by the state, and so The UTHSCSA assesses non-resident tuition to recuperate the loss of funds and costs associated with educating these unfunded students.

UNIVERSITY PROCEDURE

Students’ Responsibilities

• Undergraduate students must submit all official transcripts from previously attended institutions as excess hours are not based on UTHSCSA data but on statewide data. (Doctoral students must also provide transcripts although inter-institutional hours are not calculated. Rather, this is to meet other rules and regulations. See the Admissions Policy for more information.)
• To avoid being charged nonresident tuition, resident students must be aware of the number of credit hours required for their degree and avoid taking more than the maximum hours above the program requirement.
• Students should seek advisement from their respective department so that they may be assisted in creating a plan for degree completion, considering the impact of previous coursework, current semester credit hours attempted, and total allowable semester credit hours for attainment of the degree.

• If receiving Financial Aid, the student should seek advisement from The Office of Financial Aid and Veterans' Services, as they have a separate hour limit for funded hours.

Students are encouraged to use the table below to identify the maximum number of hours that they can take based on the hours required for their degree. The hours required for the degree can be found in the appropriate program section of this Catalog. Students should use the 45-hour enrollment cap (second column) if they first attended college between fall 1999 and summer 2006. Students should use the 30-hour enrollment cap (third column) if they first attended college beginning fall 2006. Graduate students should refer to the fourth and fifth columns based on their program of study.

### Undergraduate

<table>
<thead>
<tr>
<th>Hours Required for Degree</th>
<th>45 Hr. Enrollment Cap</th>
<th>30 Hr. Enrollment Cap</th>
<th>99 Hr. Enrollment Cap</th>
<th>130 Hr. Enrollment Cap</th>
</tr>
</thead>
<tbody>
<tr>
<td>120</td>
<td>165</td>
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</table>

### PhD

<table>
<thead>
<tr>
<th>Hours Required for Degree</th>
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<th>99 Hr. Enrollment Cap</th>
<th>130 Hr. Enrollment Cap</th>
</tr>
</thead>
<tbody>
<tr>
<td>99</td>
<td>X</td>
<td>X</td>
<td>99</td>
<td>X</td>
</tr>
<tr>
<td>130</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>130</td>
</tr>
</tbody>
</table>

### Financial Aid

#### FEDERAL FINANCIAL ASSISTANCE

All students applying for admission to the Health Science Center are eligible to apply for federal financial assistance. Students in joint programs become eligible once they enter the professional phase of the program.

To apply for all forms of federal or state financial aid a student must complete the Free Application for Federal Student Aid (FAFSA) ([http://www.fafsa.ed.gov](http://www.fafsa.ed.gov)) on an annual basis. The FAFSA can be on the Web ([http://www.fafsa.ed.gov](http://www.fafsa.ed.gov)).

The University of Texas Health Science Center at San Antonio (HSC) may require additional information to complete the application based on an evaluation of your FAFSA data. Students are encouraged to take seriously all correspondence requests for information from the Office of Veteran Services & Financial Aid, as all documents are required by federal regulation to process your application. Students should only send documents requested by the Office of Veteran Services & Financial Aid. Do NOT send any other documents. Once all documents are received, the application is considered complete and is ready for awarding. Awards for financial assistance are not made until mid-April for semesters beginning in the subsequent fall term, and may span the entire award year (fall, spring, and summer) as determined by the student’s expected graduation term.

The Health Science Center has a “priority” deadline of March 31st for applications for financial aid for the subsequent fall semester. Students who are entering a program in what the Health Science Center considers a summer semester (applies only to nursing and health professions) must apply using the current FAFSA ([http://www.fafsa.ed.gov](http://www.fafsa.ed.gov)) and the FAFSA for the next academic year. Students applying for aid after the priority deadline risk not having funds available at registration. However, in most cases, aid will be processed in less than a week, once the student has completed all document requirements.

Disbursement of financial aid occurs for students on or around 10 days prior to the first class day. Emergency loans will NOT be given in advance of a scheduled disbursement date as this is considered an advance of federal funds and is barred by regulation.

### Selective Service Requirement

Students subject to selective service registration will be required to file a statement that the student has registered or is exempt from selective service registration in order to be eligible to apply for federal financial aid.
In addition, the selective service requirement is also applicable to students applying for financial assistance funded by state revenue.

**COMPETITIVE ACADEMIC SCHOLARSHIPS**

The UT Health Science Center offers Competitive Scholarships on a school-by-school basis as funds allow. All matriculating students are eligible to apply for competitive scholarships. Each school will develop specific guidelines and criteria for awarding the scholarships. The Competitive Scholarship must be recommended by the Scholarship Committee of each school, with final approval from the Health Science Center Scholarship and Loan Committee. Applicants should contact the appropriate school within the Health Science Center for information about the availability of scholarship funds and application information.

Non-resident students who are awarded a Competitive Scholarship of at least $1000 for the academic year are entitled to pay the tuition and fees required of Texas residents for the duration of the scholarship. The total number of students at the Health Science Center paying resident tuition under the Competitive Scholarship criteria must not exceed five percent of the total number of students at the Health Science Center. Competitive scholarships may be renewed for subsequent years based on satisfactory performance (as defined by the school) in the educational program and other factors at the discretion of the school.

Students who graduate in the top 10% of their high school graduating class are eligible for a scholarship at public institutions of higher education in Texas.

**AIR FORCE RESERVE OFFICERS TRAINING CORPS PROGRAM**

By agreement with The HSC, a student may obtain a commission as an officer in the U.S. Air Force upon completion of a baccalaureate or master’s degree at the HSC and completion of the Air Force Reserve Officers Training Corps (ROTC) program at The University of Texas at San Antonio (UTSA). Scholarships are available on a competitive basis. Scholarships provide tuition and fee assistance, a book allotment, and monthly subsistence allowance.

In addition to courses, students are required to attend a weekly leadership laboratory and physical training. For more information contact Air Force ROTC at UTSA at 210-458-4624 or e-mail at afrotc@utsa.edu.

**FEDERAL COLLEGE WORK-STUDY EMPLOYMENT**

The HSC has very limited amounts of Federal Work-Study funds. Funds are awarded on a first-come, first-served basis to students who indicate they are “interested in Work-Study” on their FAFSA and have financial need. Students will earn these funds by working no more than 20 hours per week and can find potential employers by reviewing open positions on the VFSA website (http://students.uthscsa.edu/financialaid/2013/03/federal-work-study).

**TUITION REBATE**

Resident students entering a baccalaureate degree program on or after September 1, 1997, may be eligible for a tuition rebate of up to $1,000 if the student:

- Is awarded a baccalaureate degree
- Has attempted no more than 3 semester credit hours in excess of the minimum number of semester credit hours required to complete the degree
- Including transfer credits and credit earned by examination
- Excluding course credit that is earned to satisfy requirements for a Reserve Officers’ Training Corps (ROTC) program but that is not required to complete the degree program.
- Excluding course credit, other than credit earned exclusively by examination, that is earned before graduating from high school.

**COST OF ATTENDANCE**

The Cost of Attendance (COA) is determined by The Office of Veteran Services & Financial Aid (http://students.uthscsa.edu/financialaid) each year and is based on the estimated costs a student will incur for each semester. Included in the COA are estimates for actual tuition and fee costs, a book allowance, a room and board allowance, transportation and personal/miscellaneous expenses. Students required to purchase a laptop for entry into their program of choice will receive an allowance for the cost. See information online (http://students.uthscsa.edu/financialaid/2013/02/cost-of-attendance) for the components of the various Cost of Attendance budgets as well as financial aid opportunities at the HSC.

**Tuition and Fees Policy**

**UNIVERSITY DECISION**

Tuition and fees are collected by an institution of higher education from students attending the university as permitted by the Texas Education Code. However, the determination to increase the fees and charges are made by the University administration and The University of Texas System Board of Regents. Students are assessed tuition and fees based on the location and programs in which they are enrolled and the degrees being pursued. Students enrolled in programs and pursing degrees that are a partnership arrangements with another university may be assessed the tuition and fees approved by the partnership.

**PERTINENT INFORMATION**

By statutory provision, the Board of Regents has the authority and power to prescribe, regulate and otherwise engage in and control tuition and registration fees as well as non-resident fee exemptions.

No student may attend class, laboratory, or clinic until the student is officially registered with tuition and fees (or an installment payment) paid. Registration is not complete until tuition and fees are paid.

When and if a student misses the official publicized tuition and fees payment deadline (known as Census Day as defined by the Texas Education Code), the student shall be removed from enrollment by the Office of the Registrar as approved by the Deans’ Council on 10-20-2009.

**UNIVERSITY PROCEDURE**

A. At the first Board meeting of the calendar year, a schedule of tuition and fee rates will be presented to the Board of Regents for approval for the upcoming school year.
B. The annual Tuition and Fee schedule, once approved by the Board of Regents, will be utilized by The University of Texas Health Science Center San Antonio (HSC) as appropriate when registering students for the new school year.

C. The Tuition and Fee Schedule will remain in effect for the entire school year unless modified and approved by the Board of Regents.

D. Below is a definition and explanation of current existing tuition and fee items in effect at the HSC:

**Procedural Charges**

**Application Fee**
The HSC assesses nonrefundable application fee that is required of all applicants. School of Health Professions applicants are assessed $60.00; Graduate School of Biomedical Sciences applicants are assessed $10.00; School of Nursing applicants are assessed $45.00; Visiting students are assessed $25.00.

**Auditing Charge**
All auditors of courses must submit an Audit Course Form, with appropriate approvals, to the Office of the Registrar. Students registered at the HSC may with the approval of the instructor and Department Chair of the department in which the course is offered, audit courses by paying an auditing charge of $25 per course if students are not officially enrolled in UT Health Science Center Courses and $5.00 if they are officially enrolled. The audit charge is nonrefundable.

**Credit Card Expense Charge**
A charge of 2.9% of balances paid is assessed all students electing to use a credit card for payment.

**Duplicate Diploma Charge**
A charge of $50 will be assessed for each request for a duplicate diploma. If the student requests a rush order a charge of $125 will be assessed.

**Returned Check Charge**
A fee authorized by Section 54.504 of the Texas Education Code, charged for checks returned due to non-sufficient funds

**Installment Plan Fee**
A fee, charged per semester, to students who elect to pay their tuition and fees on an installment basis

**Tuition and Mandatory Fees**

**Tuition**
Pursuant to Subchapter B, Chapter 54, Texas Education Code (http://www.statutes.legis.state.tx.us/Docs/ED/htm/ED.54.htm), each student who registers at UT Health Science Center is required to pay tuition according to the number of semester credit hours for which registration is completed and according to his or her residence classification.

1. Statutory Tuition – A tuition charge authorized under Texas Education Code (TEC) §54.051 in an amount determined by the Texas Legislature for resident or nonresident students. Currently, the university rate is set at $50 per semester credit hour (SCH) for resident students. Higher rates are charged for nonresident students.

2. Designated Tuition – Is established by the local governing board for effective operation of the institution. TEC §54.0513 authorizes institutions other than public community colleges to impose on any graduate or undergraduate, resident or nonresident student, an additional tuition charge that the governing board of the institution considers necessary for the effective operation of the institution. This rate varies by institution.

3. Designated Tuition (Deregulated) – A tuition charge authorized under TEC §54.008 for graduate programs. Institutions can set tuition at rates at least twice that of undergraduate tuition, and can set different rates among programs.

**Computer and Technology Fee**
Each student who registers at UT Health Science Center is required to pay a $10.00 per semester-credit–hour charge. This fee is to defray costs associated with managing, maintaining, upgading, and general operations of the University's technology infrastructure, electronic resources and online services.

**Library Fee**
A charge of $150.00 per semester is assessed to all students enrolled at UT Health Science Center to defray costs of providing library services.

**Student Assistance Fee**
A charge of $75.00 per semester is assessed for School of Health Profession.

**Medical Services Fee**
A $145.00 a year is assessed to all students for medical services provided at the Student Health Services.

**Health Insurance Fee**
Varies each year. Insurance is currently provided by Blue Cross Blue Shield.

**Student Service Fee**
A fee authorized by Section 54.503 of the Texas Education Code, charged for the provision of services that directly involve or benefit students. Services may include recreational activities, health and hospital services, medical services, intramural and intercollegiate athletics, artists and lecture series, cultural entertainment series, debating and oratorical activities, student publications, student government, the student fee advisory committee, student transportation services and other student activities and services specifically authorized and approved by the governing board of the institution of higher education. An annual compulsory student services fee of $220.00 is charged to all students.

**Lab Fee**
A fee authorized by Section 54.501 of the Texas Education Code, the fee varies by course.

**Parking Fee**
A fee authorized by Section 54.505 of the Texas Education Code, charged for parking of one's motor vehicle on campus property. This is a varied fee.

**Student ID Card Fee**
A fee authorized by Section 54.504 of the Texas Education Code, charged a student the first time attending UT Health Science center is registered...
to defray the cost of preparing student ID cards. An additional fee for the replacement of lost cards will be charged.

**Fitness Center Fee**
A fee authorized by Section 54.515 of the Texas Education Code, charged to defray expenses associated with Fitness Center operations or this fee helps to defray the cost of operating and maintain a student fitness center. An annual $480.00 is assessed to students.

**Liability Insurance Fee**
A fee charged to students to cover the cost of malpractice insurance for students who are involved in direct patient care. The fee varies by school.

**Installment Late Fee**
A $10.00 fee charged for late payment of an installment payment due.

**Transcript Fee**
A fee charged for transcripts and charges to produce a copy of student’s account.

**ADDITIONAL COLLEGE, COURSE FEES AND INCIDENTAL CHARGES**

**Graduation Fee**
A fee authorized by Section 54.504 of the Texas Education Code, charged to defray the expense of preparing student’s diploma and services related to graduation. A $60.00 is assessed for the first degree and an additional $25.00 is assessing for additional degrees earned.

**Online Fee**
A fee of $250.00 a credit hour for out of state and instate students.

**EQUIPMENT AND MATERIALS FEE**

**Implantation Materials Fee**
A $500.00 fee assessed for second year Dental School Students.

**Technology Fee**
A $350.00 fee is assessed to Dental School students and $10.00 an hour for Health Profession students.

**Laptop Fee**
Fee varies by School and it is assessed by the Computer Store.

**Clinic Usage**
A $1,320.00 fee is assessed to Dental School students’ year 1 and 2 and $1,000.00 for Dental School students year 3 and 4. Advanced Dental Students in Orthodontics are assessed $14,100.00 annually.

**Human Material Fee**
A $865.00 is assessed

**Microscope Fee**
A $48.00 fee is assed for Medical School students and for Dental School students year 1 and 2.

**Equipment Leasing Fee**
A $2,400.00 is assessed for Dental School Students.

**Educational Support Fee**
A fee assessed to Health Profession Students to cover the cost of materials, equipment leased, course fees and practicum fees. The fee varies depending on the program. Students enrolled in the Emergency Health Science Program are not assessed this fee.

**PAYMENT POLICY**
It is the policy of the HSC that all expenses, including tuition and fees, are due and are to be paid by each student at the time of registration unless specifically exempted. Student may be registered and attend classes without payment at the time of registration, if:

- The student is sponsored by his/her employer who will make payments directly to the university, and the employer has furnished a letter to the Office of the Bursar accepting unconditional liability for all charges not paid by the student, regardless of whether or not the student completes the courses or achieves a minimum grade for the course
- The student has a scholarship. Loan or grant covering 100 percent of all costs that will be paid directly to the university by a sponsor who has notified the Office of the Bursar in advance, in writing of the student’s eligibility and acceptance; or
- The student is eligible for a deferred payment of tuition through one of the university’s approved payment plans

Registration is made final only upon satisfaction of all charges.

**BILLING**
Tuition and fee bills for registration during early registration, regular registration and late registration are available online and are not mailed.

When the student is billed, he/she is given a definite payment date for the amount due. If payment is not received, the student will receive a delinquent payment fee and/or his/her records, transcripts, and registration may be blocked until full payment is received.

**REFUNDS**

**Fee Refund Schedule (Complete Withdrawal)**
Both graduate and undergraduate students who withdraw from this institution during a fall or spring semester will receive a refund of a percentage of tuition and refundable fees based on the schedule below. Students receiving assistance through Title IV programs may have this refund returned to the federal government in accordance with the provisions in the Higher Education Act of 1965, as amended in 1998.

Medical and dental students who withdraw in the fall of the academic year will receive a 100% refund of tuition and fees for the second half of the year (spring) and a refund for the first half of the year (fall) based upon the schedule below:

- 100 percent prior to the first day of classes
- 80 percent during the first five class days
- 70 percent during the second five class days
- 50 percent during the third five class days
- 25 percent during the fourth five class days

No refunds will be made in the case of withdrawal after the fourth five-day period.
Students who withdraw during a summer term may receive a refund of tuition and applicable fees based on the following schedule:

- 100 percent prior to the first class day
- 80 percent during the first, second, or third class day
- 50 percent during the fourth, fifth, or sixth class day

No refunds will be made on the seventh class day or thereafter, or if still enrolled.

Notice of intention to withdraw must be made in writing to the Registrar. The institution terminates student services and privileges at the time of the student’s withdrawal.

**Refund for Courses Dropped**

100% of tuition and fees will be refunded for courses dropped prior to the census day of the term provided the student remains enrolled in the institution for that term. No refunds will be made for courses dropped after the census day of the term unless the student withdraws from the university. If the student withdraws from the university, the Fee Refund Schedule will be used to determine refund eligibility. Students receiving assistance through Title VI programs will have their tuition and fee allowances re-evaluated by the Office of Veteran Services and Financial Aid to determine the impact of the dropped course(s). Students who drop below half-time before census day, after receiving their Title IV program funds, may have to return 100% of the funds received.

The student must follow all university procedures to officially drop a course or withdraw from school.

A student must complete a Student Clearance Form to receive a refund.

The date of receipt of the form in the Office of the Registrar will be used to determine refund eligibility. Students receiving assistance through Title VI programs will have their tuition and fee allowances re-evaluated by the Office of Veteran Services and Financial Aid to determine the impact of the dropped course(s). Students who drop below half-time before census day, after receiving their Title IV program funds, may have to return 100% of the funds received.

The refund schedule will vary depending upon the following:

1. Students who are enrolled in semester credit hour courses who drop a class or withdraw from school prior to the first class day will receive a 100% refund.

Students in semester credit hour courses who officially withdraw from school or drop a course after classes begin will have their tuition and fees refunded according to the following schedule, unless the fees are specifically designated as non-refundable:

### Regular (Fall or Spring Semester or Summer term of 10 weeks or longer)

<table>
<thead>
<tr>
<th>Time of Withdrawing</th>
<th>Amount of Refund of Tuition and Returnable Fees and Charges</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prior to the first class day</td>
<td>100% of applicable tuition and returnable fees and charges</td>
</tr>
<tr>
<td>During the First 5 class days</td>
<td>80% of applicable tuition and returnable fees and charges</td>
</tr>
<tr>
<td>During the second 5 class days</td>
<td>70% of applicable tuition and returnable fees and charges</td>
</tr>
<tr>
<td>During the third 5 class days</td>
<td>50% of applicable tuition and returnable fees and charges</td>
</tr>
<tr>
<td>During the fourth 5 class days</td>
<td>25% of applicable tuition and returnable fees and charges</td>
</tr>
<tr>
<td>After the fourth 5 class days</td>
<td>No refund of tuition, fees, or charges</td>
</tr>
</tbody>
</table>

### Term or Session of More than Five (5) Weeks, but Less Than 10 Weeks

<table>
<thead>
<tr>
<th>Time of Withdrawing</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Prior to the first class day</td>
<td>100% of applicable tuition and returnable fees and charges</td>
</tr>
<tr>
<td>During the first, second or third class day</td>
<td>80% of applicable tuition and returnable fees and charges</td>
</tr>
<tr>
<td>During the fourth, fifth, or sixth class day</td>
<td>50% of applicable tuition and returnable fees and charges</td>
</tr>
<tr>
<td>After the sixth class day</td>
<td>No refund of tuition, fees, or charges</td>
</tr>
</tbody>
</table>

### Term or Session of Five (5) Weeks or Less

<table>
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<th>Time of Withdrawing</th>
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<tr>
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</tr>
<tr>
<td>During the first class day</td>
<td>80% of applicable tuition and returnable fees and charges</td>
</tr>
<tr>
<td>During the second class day</td>
<td>50% of applicable tuition and returnable fees and charges</td>
</tr>
<tr>
<td>After the second class day</td>
<td>No refund of tuition, fees, or charges</td>
</tr>
</tbody>
</table>

Class days are defined as calendar days during which classes are normally held and not the days a particular course meets.

A student who concurrently adds and drops the same number of credit hours will neither be charged nor refunded for this add/drop

**TITLE IV REFUND**

*This refund policy applies to any financial aid recipient who withdraws from school.*

As an institution participating in programs under Title IV of the Higher Education Act (http://www.ed.gov/policy/highered/leg/hea98), the Health Science Center is required to return a portion of the Title IV refunds a student received, back to the Title IV program from where the funds were originally disbursed, as a result of the student’s withdrawal from school.

The portion returned is referred to as the Title IV Refund and is calculated by determining the portion of unearned aid a student has received. The types of Title IV funds included in this calculation are student loans from the William D. Ford Direct Loan Program, Perkins loans, Pell grants, or Supplemental Educational Opportunity Grants (SEOG) (http://www.ed.gov/programs/fseog).

The refund is required if the student does not register for, withdraws from, or otherwise fails to complete the period of enrollment for which the financial assistance was intended. No refund is required if the student withdraws after a point in time that is sixty percent of the period of enrollment for which the charges were assessed. A student who withdraws prior to that time is entitled to a refund of tuition, fees, room and board, and other charges that is the larger of the amount provided in Section
The University of Texas Health Science Center at San Antonio

54.006, or a pro rata refund calculated pursuant to Section 48 of the Act, reduced by the amount of any unpaid charges and a reasonable administrative fee not to exceed the lesser of five percent of the tuition, fees, room and board, and other charges that were assessed for the enrollment period, or one hundred dollars.

RETURN OF FEDERAL FUNDS DUE TO WITHDRAWALS OR LEAVE OF ABSENCE

Students withdrawing from the Health Science Center prior to completing 60% of the semester, and who have received Federal Title IV are required to return the unearned portion of funds received. Funds used to pay tuition and fees are returned by the Health Science Center to the appropriate federal fund on a pro rata basis. Thus a student on financial aid who withdraws after completing only 30% of the semester will have 70% returned to federal programs. This is NOT a refund of tuition and fees. State law describes the amount of tuition and fees that a student is responsible for paying regardless of when they withdrew. Refer to the “Fee Refund Schedule” below for details on tuition and fee refunds for drops and withdrawals. Student who are granted a leave of absence over 180 days are considered withdrawn as it relates to financial aid.

Refunds are distributed in the following order:

1. Unsubsidized Federal Stafford Loan
2. Subsidized Federal Stafford Loan
3. Federal PLUS Loan
4. Federal Perkins Loan
5. Federal Pell
6. Federal SEOG

Satisfactory Academic Standards require a student to progress in their degree program in order to receive Title IV assistance. Withdrawals, or a leave of absence from school, are considered a violation of this standard. Students who subsequently return to school will need to file an appeal with the office of VFSA to explain, in writing, the circumstances of the withdrawal before eligibility for federal or state aid can be reinstated. Please see the VFSA web site for full details. http://students.uthscsa.edu/financialaid/2013/05/are-you-meeting-sap-requirements/

INSTALLMENT PAYMENTS

Payment of tuition and fees in installments may be an option for students. A fee of $15 is assessed for handling installment payments of tuition and fees, and a $10 late fee is assessed for each late payment.

Penalties for failing to make installments on time include:

1. Being barred from class until payment is made;
2. Withholding of credit if payment is not made by the end of the semester, with the university adjusting its records to reflect the student’s failure to have properly enrolled.
3. Bar against readmission and withholding of grades, degree, and official transcript, and/or
4. Other remedies authorized by law.

Professional Schools

Students in Professional-level programs (Dental School D.D.S. and School of Medicine M.D.) pay tuition and fees based upon the curriculum for the academic year.

The following alternatives are available:

Medical and Dental Students

Option 1

<table>
<thead>
<tr>
<th>Registered for x Graduate Hours</th>
<th>Maximum Hours Per Week</th>
<th>Permitted to Work</th>
</tr>
</thead>
<tbody>
<tr>
<td>50%</td>
<td>at Registration</td>
<td></td>
</tr>
<tr>
<td>50%</td>
<td>at the end of winter break</td>
<td></td>
</tr>
</tbody>
</table>

Option 2 (for students without Financial Aid only)

<table>
<thead>
<tr>
<th>Registered for x Graduate Hours</th>
<th>Maximum Hours Per Week</th>
<th>Permitted to Work</th>
</tr>
</thead>
<tbody>
<tr>
<td>25%</td>
<td>at Registration</td>
<td></td>
</tr>
<tr>
<td>25%</td>
<td>1 month later</td>
<td></td>
</tr>
<tr>
<td>25%</td>
<td>1 week at midpoint of the academic year</td>
<td></td>
</tr>
<tr>
<td>25%</td>
<td>30 days after the 3rd installment</td>
<td></td>
</tr>
</tbody>
</table>

Graduate and Undergraduate Students

Both Undergraduate and Graduate students (Graduate School of Biomedical Sciences, School of Health Professions and School of Nursing) pay tuition and fees based upon the hours for which they register each semester.

- One-third payment of tuition and fees in advance of the beginning of the semester (registration) and
- One-third payment 30 days after first payment and
- One-third payment 30 days after second payment.

A 60-day tuition loan is available for the full amount. An origination fee of 1.25% of the amount of the loan is assessed to cover the cost related to providing the loan.

TUITION SET ASIDE FOR FINANCIAL ASSISTANCE

Students are informed of the amount of their tuition set aside for financial assistance as mandated by the Texas Education Code, Section 56.014. The information will be included on their tuition bill available online prominently displaying the notice regarding the specific amount that is required to be set aside by the institution.

TUITION ASSISTANCE

The Texas Higher Education Coordinating Board administers various tuition assistance programs including programs for teachers and vocational nursing students. Further information about these programs may be obtained online at http://collegefortexans.com

TUITION FOR REPEATED OR EXCESS CREDIT HOURS

Undergraduate Students

Authorized by Section 54.014 of the Texas Education Code, an undergraduate student who pays resident tuition rates will be charged nonresident tuition rates if the student has accumulated the greater of either
1. 170 or more semester credit hours without earning a baccalaureate degree, or
2. More than 30 semester credit hours than is required for completion of the baccalaureate degree. In addition, a higher tuition rate may be charged if a student enrolls again in a course that is the same or substantively identical to a course that the student previously completed.

Graduate Students
Authorized by Section 54.012 of the Texas Education Code, a student who has earned 100 or more semester hours of credit at the doctoral level (130 semester credit hours for biomedical sciences) is subject to the nonresident tuition rate, even if the student is a Texas resident or holds an appointment that would normally entitle the holder to pay resident tuition.

In addition, a higher tuition rate may be charged if a student enrolls again in a course that is the same or substantively identical to a course that the student previously completed.

More information on excess hours may be found under the Excess Hours Policy.

TUITION FOR REPEATED COURSES
A student whose hours may no longer be submitted for formula funding because it is the same or substantially similar to a course that the student previously attempted for two or more times at The HSC may be charged a higher tuition rate per semester credit hour or nonresident tuition rates.

WAIVER OF NON-RESIDENT TUITION
Nonresidents who may qualify to pay tuition at the resident rate without regard to the length of residence in Texas include:

1. Military personnel assigned to duty in Texas and their spouse and children.
2. Faculty employed at least one-half time on a regular monthly basis at a state institution of higher learning and their spouse and children.
3. Teaching or research assistants employed at least one-half time in a position which is related to the assistant’s degree program under academic regulations and their spouse and children.
4. A student who holds a competitive academic scholarship for at least $1,000, which was awarded in competition with Texas students by a scholarship committee, recognized by the university and The Texas Higher Education Coordinating Board. The total number of students at an institution paying resident tuition under this provision for a particular semester may not exceed five percent (5%) of the total number of students registered at the institution for the same semester of the preceding year.
5. Veterans eligible for benefits under the Post-9/11 Veterans Educational Assistance Act of 2008 (38 U.S.C. Section 3301 et seq.) or any other federal law authorizing educational benefits for veterans.
6. Resident students entering a baccalaureate degree program on or after September 1, 1997 may be eligible for a tuition rebate of up to $1,000 if the student:
   • Is awarded a baccalaureate degree, and
   • Has attempted no more than three hours in excess of the minimum number of semester credit hours required to complete the degree, including transfer credits and course credit earned exclusively by examination.

A non-resident student who believes he/she is qualified for one of the tuition waivers must provide documentation to the Office of Veteran Services & Financial Aid no later than the census date for the term in order for the application of the waiver to be considered for that term. Full details of all applicable Texas waivers can be found at www.collegefortexans.com (http://www.collegefortexans.com) under “Types of Financial Aid.”

EXEMPTION FROM TUITION, FEES AND CHARGES
The Texas Higher Education Coordinating Board prescribes certain cases in which students can be exempt from tuition and/or certain fees and charges. It is the student’s responsibility to initiate the action of applying for an exemption and providing satisfactory evidence that all conditions required for the exemption and providing satisfactory evidence that all conditions required for the exemption have been met. Until such time as the exemption is granted, a student will be required to pay all tuition, fees, and charges from his or her own funds.

Students who might be eligible for an exemption must apply for the exemption with the Office of Veteran Services & Financial Aid before the census day of the semester in which they plan to use the exemption provision.

Adopted Students Formerly in Foster or other Residential Care

<table>
<thead>
<tr>
<th>Who is Eligible</th>
<th>Certain adopted students</th>
</tr>
</thead>
<tbody>
<tr>
<td>Requirements</td>
<td>To be eligible, a students must:</td>
</tr>
<tr>
<td></td>
<td>have been adopted</td>
</tr>
</tbody>
</table>

Tuition, Fees and Charges Exempted
Tuition, fees and charges

Blind and Deaf Students

<table>
<thead>
<tr>
<th>Who is Eligible</th>
<th>Texas residents who are deaf or blind</th>
</tr>
</thead>
<tbody>
<tr>
<td>Requirements</td>
<td>Certification of deafness/blindness for the Texas Commission for the Deaf &amp; Hearing Impaired/Texas Commission for the Blind. Form must be provided to the Office of Financial Aid.</td>
</tr>
</tbody>
</table>

Tuition, Fees, and Charges Exempted
Tuition, fees, and charges
<table>
<thead>
<tr>
<th>Children of Disabled/Deceased Texas Firefighter and Law Enforcement Officers</th>
<th>Tuition, Fees, and Charges</th>
<th>Exempted</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Who is Eligible</strong></td>
<td>Children under 21 of full-paid or volunteer firefighter; full-paid or volunteer municipal, county, or state peace officers including a game warden; or custodial officer of the Department of Criminal Justice who died or became disabled in the line of duty.</td>
<td><strong>Tuition, Fees, and Charges</strong></td>
</tr>
<tr>
<td><strong>Requirements</strong></td>
<td>Certification from parent’s workplace must be provided to the Office of Financial Aid</td>
<td><strong>Exempted</strong></td>
</tr>
<tr>
<td><strong>Tuition, Fees, and Charges Exempted</strong></td>
<td>Tuition, fees, and charges</td>
<td></td>
</tr>
<tr>
<td>Exemption not to exceed 120 undergraduate credit hours or any semester begun after age 26.</td>
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<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Children of Prisoners of War or Persons Missing in Action</th>
<th>Tuition, Fees, and Charges</th>
<th>Exempted</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Who is Eligible</strong></td>
<td>Child (under 21) or a dependent (under 25) who receives majority of support from parent</td>
<td><strong>Tuition, Fees, and Charges</strong></td>
</tr>
<tr>
<td><strong>Requirements</strong></td>
<td>Parent must be a resident of Texas on active duty and be classified by the Department of Defense as a Prisoner of war or Missing in Action at the time of registration, and certification must be provided to the Office of Financial Aid</td>
<td><strong>Exempted</strong></td>
</tr>
<tr>
<td><strong>Tuition, Fees, and Charges Exempted</strong></td>
<td>Tuition, fees, and charges</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Children of Professional Nursing Program Faculty</th>
<th>Tuition, Fees, and Charges</th>
<th>Exempted</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Who is Eligible</strong></td>
<td>A child of a faculty member or teaching assistant in a nursing program in Texas</td>
<td><strong>Tuition, Fees, and Charges</strong></td>
</tr>
<tr>
<td><strong>Requirements</strong></td>
<td>a resident of Texas age 25 or younger&lt;br&gt;not have been granted a baccalaureate degree&lt;br&gt;be enrolled at the same institution that employs the parent/faculty member&lt;br&gt;has not previously received an exemption under this section for 10 semesters or summer sessions</td>
<td><strong>Exempted</strong></td>
</tr>
<tr>
<td></td>
<td>If the parent is employed on less than a full-time basis, the value of the exemption is to be prorated in accordance with parent’s employment load. Under no circumstances, however, is the exemption to be for an amount less than 25% of the student’s tuition.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Disabled Peace Officers</th>
<th>Tuition, Fees, and Charges</th>
<th>Exempted</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Who is Eligible</strong></td>
<td>A permanently disabled peace officer as a result of an injury suffered during the performance of a duty as a peace officer of this state or a political subdivision of this state and is unable to continue employment as a peace officer because of the disability.</td>
<td><strong>Tuition, Fees, and Charges</strong></td>
</tr>
<tr>
<td><strong>Requirements</strong></td>
<td>To receive an exemption, the student must: be a Texas resident&lt;br&gt;be taking undergraduate work&lt;br&gt;not exceed 12 semesters in the undergraduate program</td>
<td><strong>Exempted</strong></td>
</tr>
<tr>
<td><strong>Tuition, Fees, and Charges Exempted</strong></td>
<td>Tuition, but class fees and laboratory fees</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Firefighter Enrolled in Fire Science Courses</th>
<th>Tuition, Fees, and Charges</th>
<th>Exempted</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Who is Eligible</strong></td>
<td>Native-born students from other designated nations of the American hemisphere.</td>
<td><strong>Tuition, Fees, and Charges</strong></td>
</tr>
<tr>
<td><strong>Requirements</strong></td>
<td>To be eligible, a student must: show evidence of native citizenship and proof of five years residency in that country&lt;br&gt;demonstrate scholastic eligibility&lt;br&gt;not be a member of the Communist Party&lt;br&gt;be recommended for a scholarship by an eligible institution&lt;br&gt;have a valid student visa&lt;br&gt;provide other documentation as required (inquire at Scholarship Office).</td>
<td><strong>Exempted</strong></td>
</tr>
<tr>
<td><strong>Tuition, Fees, and Charges Exempted</strong></td>
<td>Tuition only.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Good Neighbor Scholarship</th>
<th>Tuition, Fees, and Charges</th>
<th>Exempted</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Who is Eligible</strong></td>
<td>Native-born students from other designated nations of the American hemisphere.</td>
<td><strong>Tuition, Fees, and Charges</strong></td>
</tr>
<tr>
<td><strong>Requirements</strong></td>
<td>To be eligible, a student must: show evidence of native citizenship and proof of five years residency in that country</td>
<td><strong>Exempted</strong></td>
</tr>
<tr>
<td><strong>Tuition, Fees, and Charges Exempted</strong></td>
<td>Tuition only.</td>
<td></td>
</tr>
</tbody>
</table>
demonstrate scholastic eligibility
not be a member of the Communist Party
be recommended for a scholarship by an eligible institution
have a valid student visa
provide other documentation as required (inquire at Scholarship Office).

Applications are available only in January and February for the following Summer, Fall, and Spring semesters.

Applications are reviewed and granted by the Texas Higher Education Coordinating Board semester by semester.

Tuition, Fees, and Charges
Exempted
Tuition only.

**Hazelwood Act (Texas ex-servicemen and Children of Texas Veterans)**

**Who is Eligible**

A. A veteran may qualify for benefits under the Hazlewood Act if she or he:

- entered the service at a location in this State, declared this State as the person’s home of record in the manner provided by the applicable military or other service, or would have been determined to be a resident of this State at the time of entry into the armed forces of the United States
- was a nurse, member of the Women’s Army Auxiliary Corps, member of the Women’s Auxiliary Volunteer Emergency Service, and all honorably discharged members of the armed forces of the United States who served during World War II except those who were discharged from service because they were over the age of 38 or because of a personal request on the part of the person that he or she be discharged from service
- was honorably discharged from the armed forces of the United States and who served during the national emergency which began on June 27, 1950, and which is referred to as the Korean War
- was honorably discharged from the armed forces of the United States after serving on active military duty, excluding training, for more than 180 days and who served a portion of their active duty during:
  - a. the Cold War which began on the date of the termination of the national emergency cited above;
  - b. the Vietnam era which began on December 21, 1961, and ended on May 7, 1975;
  - c. the Grenada and Lebanon era which began on August 24, 1982, and ended on July 31, 1984;
  - d. the Panama era which began on December 20, 1989, and ended on January 21, 1990;
  - e. the Persian Gulf War which began on August 2, 1990, and ends on the date thereafter prescribed by Presidential proclamation or September 1, 1997, whichever occurs first;
  - f. the national emergency by reason of certain terrorist attacks that began on September 11, 2001; or
  - g. any future national emergency declared in accordance with federal law.
- received an honorable discharge, a general discharge under honorable conditions, or an honorable release from active duty
- has attempted fewer than 150 credit hours of college courses since the fall of 1995 using the Hazlewood exemption
- has exhausted eligibility for federal veterans’ or survivor’s educational benefits during the semester/term in which they are enrolled
- is not in default on any education loans made or guaranteed by the Federal Government or the State of Texas, and
- is enrolled in an eligible program of study. An institution may not grant a Hazlewood Act exemption for continuing education courses for which they do not receive state tax support, unless the institution’s board has specifically granted them permission to do so.

B. The exemptions provided for in Subsection (A) of this section also apply to the spouse or children of members of the armed forces of the United States who:

- are or were killed in action
- die or died while in service
- are missing in action
The University of Texas Health Science Center at San Antonio

whose death is documented to be directly caused by illness or injury connected with service in the armed forces of the United States who becomes totally disabled for the purposes of employability as defined by the Department of Veterans Affairs.

Subsection (B) provisions also apply to the spouse or children of members of the Texas National Guard and the Texas Air National Guard killed since January 1, 1946, while on active duty either in the service of their state or the United States.

However, to qualify for this exemption (B) the spouse or child must be classified as a resident on the date of the spouse’s or child’s registration.

C. A person who becomes eligible for an exemption provided by Subsection (A) may waive any unused portion of their eligibility to their child. To be eligible to receive an exemption under this subsection, the child must:

- be classified as a resident when the child enrolls,
- make satisfactory academic progress in accordance with the policy of the institution’s financial aid department, except for the requirement to enroll in a minimum course load, and,
- be 25 years of age or younger on the first day of the semester or term for which the exemption is claimed (a child who suffered from a severe illness or debilitating condition that affected their ability to use the exemption, may be granted additional time to use the exemption corresponding to the time the child was unable to use the exemption because of the illness or condition).

Requirements

A student seeking to use the exemption for the first time must:

- complete an application in the Office of Financial Aid prior to the deadlines posted for each semester
- (for veterans who have served on or after 09/11/2001) submit a letter from veterans administration attesting to her or his exhaustion of federal veterans educational benefits that may be used only for the payment of tuition and fees, and
- meet other program requirements as in the past.

A student continuing to use the exemption must:

- sign a release form, and
- meet other program requirements as in the past.

Tuition, Fees, and Charges

Exempted

Tuition, fees, and other required charges The exemption shall not apply to the payment of fees for services or items that are not required for enrollment in general or for the specific courses taken by the student.

No student may use Hazlewood for more than 150 credit hours.

Surviving Spouse and Dependent Children of Certain Deceased Public Servants (employees)

Who is Eligible

Surviving spouse or minor child of certain police, security, or emergency personnel killed in the line of duty.

Requirements

To be eligible, a student must:

- be the eligible surviving spouse or child of an individual listed in Government Code, Sec. 615.003
- be a full-time student
- have his or her eligibility certified by the Texas Higher Education Coordinating Board.

Tuition, Fees, and Charges

Exempted

Tuition.

Required fees and charges.

Cost of contract for food and housing (if qualified).

Cost of textbooks.

(Exemptions valid until a student receives a bachelor’s degree or 200 semester credit hours, whichever occurs first.)

Students in Foster Care

Who is Eligible

Students who are under the conservatorship of the Department of Family and Protective Services:

- on the day preceding the student’s 18th birthday;
- on or after the day of the student’s 14th birthday if the student was also eligible for adoption on or after that day, or
- on the day the student graduated from high school or received equivalent of a high school diploma, or
General Information

on the day preceding the date the student is adopted (if on or after September 1, 2009), or

on the day preceding the date permanent managing conservatorship of the student is awarded to a person other than the students’ parent (if on or after September 1, 2009).

And enrolls as an undergraduate no later than:

the student’s 25th birthday.

Effective with the Spring 2010 semester:

applies to all persons under the conservatorship of the Department of Family Protective Services during an academic term in which the student was enrolled in a dual credit course or other course for which a high school student may earn joint high school and college credit can be used by eligible students while in high school to avoid the tuition and fee costs of dual enrollment courses.

Requirements

Certification from the Texas Department of Family and Protective Services must be provided to the Office of Financial Aid

Tuition, Fees, and Charges Exempted

All tuition, up to 500 per semester

Valedictorian of an Accredited High School

Who is Eligible

Highest-ranking graduate of an accredited Texas high school.

Requirements

Certification from high school must be provided to the Financial Aid Office

Tuition, Fees, and Charges Exempted

Tuition during first two regular (Fall and Spring) semesters immediately following their graduation may be granted for any one of the first four regular semesters immediately following their high school graduation with the permission of The UT Health Science Center President

General Academic Policies

General Academic Policies are in place to provide students with direction as they navigate their educational careers at The University of Texas Health Science Center at San Antonio (http://www.uthscsa.edu) (HSC). These policies are consistent with federal law, rules and regulations under The Texas Higher Education Coordinating Board (http://www.thecb.state.tx.us) and University of Texas System (http://www.utsystem.edu), and accreditation standards under the Southern Association of Colleges and Schools (http://www.sacscoc.org). General academic policies apply to all applicants and students regardless of program, school, or certificate or degree sought. They also apply to all non-degree students.

Each school and many programs have established policies specific to their students that must be adhered to in addition to general academic policies. Those can be found under each school’s section in this Catalog.

Academic Dishonesty Policy

UNIVERSITY DECISION

As an academic university dedicated to the creation, dissemination, and application of knowledge, The University of Texas Health Science Center San Antonio (HSC) is committed to fostering an intellectual and ethical environment based on the principles of academic integrity. Academic integrity is essential to the success of the University’s educational and
research mission and violations of academic integrity constitutes serious offenses against the entire academic community.

PERTINENT INFORMATION

The Academic Integrity is based on educational principles and procedures that protect the rights of all participants in the educational process and validate the legitimacy of degrees awarded by the University. In the investigation and resolution of all allegations of student academic dishonesty, the University’s actions are intended be corrective, educationally sound, fundamentally fair, and based on reliable evidence.

The Academic Integrity is adopted by the University based on authority delegated by the Board of Regents to the President and is implemented and enforced under the direction of the Deans and Vice President for Academic, Faculty and Student Affairs.

Please note that culpability is not diminished when academic dishonesty occurs in drafts which are not the final version or when the student claims not knowing the policy or procedures.

DEFINITION OF TERMS

Academic Dishonesty

This is defined as an act of obtaining or attempting to present academic work through fraudulent or deceptive means in order to obtain credit for this work. Academic dishonesty includes but is not limited to:

Cheating

Failure to observe the expressed procedures of an academic exercise, including but not limited to:

• Unauthorized use of commercial “research” services such as term papers
• Providing information to others without instructor’s permission or allowing the opportunity for others to obtain information that provides the recipient with an advantage on an exam or assignment
• Unauthorized communicating with fellow students during a quiz or exam
• Coping material from other student’s quiz or exam
• Permitting another student to copy form a quiz or exam
• Permitting another person to take a quiz, exam, or similar evaluation in lieu of the enrolled student
• Using unauthorized materials, information, or study aids (e.g., textbook, notes, data, images, formula list, dictionary, calculator, etc.) in any academic exercise or exam
• Unauthorized collaboration in providing or requesting assistance, such as sharing information on an academic exercise or exam through cell phones and texting
• Unauthorized use of another person’s data in completing a computer or lab exercise
• Using computer and word processing systems to gain access to, alter and/or use unauthorized information
• Altering a graded exam or assignment and requesting that it be re-graded – submission of altered work after grading shall be considered academically dishonest, including but not limited to changing answers after an exam or assignment has been returned or submitting another’s exam as one’s own to gain credit

Fabrication

Falsification or invention of any information in an academic exercise, including but not limited to:

• Fabricating or altering data to support research
• Presenting results from research that was not performed—submitting material for lab assignments, class projects or other assignments which is wholly or partially falsified, invented or otherwise does not represent work accomplished or undertaken by the student
• Crediting source material that was not directly used for research
• Falsification, alteration or misrepresentation of official or unofficial records or documents including but not limited to academic transcripts, academic documentation, letters of recommendation, and admissions applications or related documents

Fraud, Misrepresentation, Lying

Intentionally making an untrue statement or deceiving including but not limited to:

• Providing an excuse for an absence, tardiness, late assignment with the intent to deceive the instructor, staff or the school
• Checking into HSC classes, labs, centers or other HSC resources with the intent to deceive the instructor, staff, or the school.
• Checking in or checking out of the HSC classes, labs, centers or other HSC resource for another student
• Using another student’s HSC identification card for use in a class, lab, center or other Health Science Center resource.

Plagiarism

The presentation of another’s words, images or ideas as if they were the student’s own, including but not limited to:

• Stealing the written, oral, artistic, or original works or efforts of others and presenting them as one’s own
• The submission of material, whether in part or whole, authored by another person or source (e.g., the internet, book, journal, etc.), whether that material is paraphrased, translated or copied in verbatim or near-verbatim form without properly acknowledging the source (it is the student’s responsibility to cite all sources)
• The submission of material edited, in part or whole, by another person that results in the loss of the student’s original voice or ideas (i.e. while an editor or tutor may advise a student, the final submitted material must be the work of the student, not that of the editor or tutor)
• Translating all or any part of material from another language and presenting it as if it were the student’s own original work
• Unauthorized transfer and use of another person’s computer file as the student’s own
• Unauthorized use of another person’s data in completing a computer exercise

Multiple Submissions

Resubmission of a work that has already received credit with identical or similar content in another course without written consent of the present instructor or submission of work with identical or similar content in concurrent courses without written consent of all instructors involved

Facilitating Academic Dishonesty: assisting another to commit an act of academic dishonesty, including but not limited to:

• Taking a quiz, exam, or similar evaluation in place of another person
• Allowing one student to copy from another
• Attending a course posing as another student who is officially registered for that course
• Providing material or other information (e.g., a solution to homework, a project or other assignments, a copy of an exam, exam key or any test information) to another student with knowledge that such assistance could be used to violate any other sections of this policy
• Distribution or use of notes or recordings based on college classes without the express written permission of the instructor for purposes other than individual or group study; this includes, but is not limited to, providing materials for distribution by services publishing class notes (This restriction on unauthorized use applies to all information distributed or in any way displayed for use in relationship to the class, whether obtained in class, via email, on the internet or via any other media)

Academic Sabotage
Deliberately impeding the academic progress of others:
• Intentionally destroying or obstructing another student’s work
• Stealing or defacing books, journals, or other library or University materials
• Altering computer files that contain data, reports or assignments belonging to another student
• Removing posted or reserve material or otherwise preventing other students’ access to it

Violation of Research or Professional Ethics
Includes both violations of the code of ethics specific to a particular profession and violations of more generally applicable ethical requirements for the acquisition, analysis, and reporting of research data and the preparation and submission of scholarly work for publications:
• Violating a canon of the ethical or professional code of the profession for which a student is preparing
• Using unethical or improper means of acquiring, analyzing or reporting data in a senior thesis project, a master’s or doctoral research project, grant-funded research, or research submitted for publication
• Misuse of grant or institutional funds
• Violating professional ethics in performing one’s duties as Teaching Assistant or Graduate Assistant

Conduct and Discipline
Students are responsible for knowing and observing the university’s procedures and regulations governing Student Conduct and Discipline and the Rules and Regulations of the Board of Regents. In addition to these regulations, standards of professional conduct may be set by each school of the Health Science Center. In summary, the Regulations provide that: Violations of university regulations concerning standards of conduct which compromise professional integrity and/or competence shall be dealt with under Student Conduct and Discipline. The chief student affairs officer shall have responsibility for the administration of discipline in areas not directly related to the academic or professional training of the student. Procedures described in the Student Conduct and Discipline of the Health Science Center will be followed.

The dean of each school shall have the responsibility for the administration of discipline in cases concerning scholastic dishonesty and professional misconduct. The full text of the Rules and Regulations of the Board of Regents and the university’s Student Conduct and Discipline should be consulted in reference to any questions concerning student conduct and discipline. The processes afforded a student subject to disciplinary sanctions are governed by Series 50101 of the Rules and Regulations of the Board of Regents of The University of Texas System and the Health Science Center’s Student Conduct and Discipline.

Professional Conduct Guidelines
University students are expected to conduct themselves in a professional manner, not only in interaction with patients, but also with peers, faculty, and staff of the HSC and the community in general. In addition to conventional academic tests and measurement criteria for assessment, students will be evaluated on issues relating to their professional conduct/judgment according to the previously defined standards of the school, program, and profession for which they are in training. The specific professional discipline/school in which the student is enrolled may have additional and more specific codes of conduct.

Student Grievance Procedures
I. Student Academic Grievance Procedure
Academic-related grievances must be submitted in writing to the department chair or other designated administrator of the academic program to which the grievance relates. The written grievance must be received no later than four calendar weeks after the alleged incident.

The dean of the school in which the student is enrolled has jurisdiction over the student’s program of study, degree requirements, and all other academic matters, including grievances. Depending upon the specific school, there may be some differences in codes of professional conduct and related issues. Appeals may be made to the Dean, then to the President. The President’s decision is final. Students enrolled in online courses should consult the Distant Learning Education Student Complaint Process section.

II. Student Nonacademic Grievance Procedure
Any student who has a nonacademic grievance concerning the interpretation, application, or alleged violation of her/his rights as a Health Science Center student or who feels he/she has been discriminated against or harassed on the basis of age, color, disability, family status, gender, national origin, race, religion, veteran status, sexual orientation, or sexual harassment has the opportunity to seek resolution of such grievance.

This policy also may include any official publication of the Health Science Center that may be perceived to be misleading or a misrepresentation of the facts. In cases where the complaint is related to official publications, the complaints may be submitted, in writing, at any time to the chief student affairs officer. If the complaint cannot be resolved at this level, appeals may be made to the President of the HSC.

The student nonacademic grievance procedure may be handled through the mediation of designated officers of the schools or through other grievance procedures specific to various acts or issues.

1. Student program and student activity-related grievances should be submitted in writing to the director or coordinator of the specific Office of Student Services’ division. Appeals must be in writing and may be directed to the chief student affairs officer and then to the Assistant Vice President for Student Services for final disposition.
2. In accordance with Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act of 1990 (ADA), the grievance procedures described in this document should be followed for
complaints alleging discrimination on the basis of disability. No qualified student shall, on the basis of disability, be excluded from participation in, be denied the benefits of, or otherwise be subjected to discrimination under any academic program or activity at the Health Science Center.

3. Complaints alleging sexual assault and/or sexual harassment should be addressed in accordance with the policies and procedures set forth in this Catalog (see General Regulations and Requirements, Sexual Assault Policy).

III. Procedure for Informal Resolution

A student who feels that he/she is a victim of harassment or discrimination or who feels that her/his rights as a student have been violated, may attempt to resolve the matter informally: the student may schedule a discussion or conference with the individual accused of the act, omission, or issue over which the student grieves. The informal discussion(s) or conference(s) should be conducted less than 30 calendar days from the date the student knew or should have known of the offensive act or issue — if an informal resolution is not forthcoming, the student has a time limit of 30 calendar days from the date he/she knew or should have known of the offensive act or issue to file a formal written grievance.

IV. Procedure for Formal Resolution

This procedure is intended to provide students with an opportunity to formally grieve any perceived act, omission, or issue of a nonacademic nature which adversely affects the grieving student and for which no other grievance or appeals procedure is provided in The University of Texas System or in the policies or procedures of the Health Science Center. Students considering filing a grievance may contact the chief student affairs officer or the appropriate associate dean of student affairs to receive instructions. (See Student Conduct and Discipline).

1. The formal written grievance should be initiated as soon as possible. If the student chooses not to attempt informal resolution of a grievance, he/she must file a formal written grievance not more than 30 calendar days from the date he/she knew or should have known of the offensive act or issue. If the student attempts informal resolution and then chooses to file a formal written grievance, he/she should file the written grievance within five working days from the last informal attempt at resolution. Also, the formal written grievance must be filed not more than 30 calendar days from the date the student knew or should have known of the offensive act or issue.

2. The student may file the written grievance, setting out a complete description of the grievance (and the proposed remedy). If the accused individual is a Health Science Center employee, the employee’s immediate supervisor receives the written grievance. The deans and/or the chief student affairs officer can assist students in identifying the accused individual’s supervisor, so that the written grievance may be filed with the appropriate person. If the accused individual is a student, the written grievance is given to the associate dean of student affairs of the accused student’s school. Where the grievance does not involve an individual, the grievance may be filed with the administrator responsible for the program issue or issues involved. Copies of the grievance will be made available to the grieving student, the associate dean of her/his school, the individual accused of the act or omission grieved, the accused individual’s supervisor, and the administrator to whom the grievance is presented.

3. The administrator hearing the grievance may, at her/his discretion, hold discussions with or without the accused to hear and resolve the grievance, schedule a meeting between the student and the party accused, and/or involve other parties in facilitating a resolution of the grievance. The administrator has 10 working days from receipt of the written grievance to resolve the grievance, after which time the student, if not satisfied, may appeal to the dean of her/his school. If the student wishes an alternate hearing officer, her/his request must be submitted, in writing, to the dean of the appropriate school or to the President not more than five calendar days from notification of the hearing.

4. If the decision of the grievance officer is to affirm the grievance, any resulting directive to the accused must be in writing and must be pursuant to a meeting between the accused and the accused’s associate dean or supervisor. Denial of the grievance also must be in writing.

5. Within five working days of the student’s receipt of the decision of the Dean, the student may appeal the Dean’s decision to the President. If no decision is rendered by the Dean within 14 working days from the delivery of the written grievance to the Dean, the written grievance and grievance record may be sent by the student to the President. The President may take whatever action is deemed appropriate.

6. The decision of the President of the Health Science Center is final.

Dismissal

Students may be dismissed, suspended, dropped from the rolls, and refused readmission at any time if circumstances of a legal, moral, health, social, or academic nature are considered to justify such action. In addition to dismissal due to academic deficiencies, questions of scholastic dishonesty and other infractions of the Rules and Regulations of the Board of Regents of The University of Texas System or the procedures and regulations governing Student Conduct and Discipline of the HSC may be grounds for dismissal. Taking a leave of absence without permission, failing to return at the appointed time from a leave of absence, and failure to pay tuition and fees may lead to a student’s termination. (See General Regulations and Requirements).

2.1 Who is Subject to Discipline

Any student who engages in conduct that violates the Regents’ Rules and Regulations, the UT System or institutional rules and regulations, specific instructions issued by an administrative official of the institution or the UT System acting in the course of his or her authorized duties, or federal, state, or local laws is subject to discipline whether such conduct takes place on or off campus or whether civil or criminal penalties are also imposed for such conduct.

2.2 Scholastic Dishonesty

Any student who commits an act of scholastic dishonesty is subject to discipline. Scholastic dishonesty includes but is not limited to cheating, plagiarism, collusion, and submission for credit of any work or materials that are attributable in whole or in part to another person, taking an examination for another person, any act designed to give unfair advantage to a student or the attempt to commit such acts.

2.3 Drugs

Any student who is found responsible for the illegal use, possession and/or sale of a drug or narcotic on the campus of an institution is subject to discipline. If a student is found responsible for the illegal use, possession, and/or sale of a drug or narcotic on campus, the sanction assessed shall be suspension from the institution for a specified period of time and/or suspension of rights and privileges.
2.4 Health or Safety
Any student who engages in conduct that endangers the health or safety of any person on the campus of an institution or on any property, or in any building or facility owned or controlled by the UT System or institution is subject to discipline.

2.5 Disruptions
Any student who, acting singly or in concert with others, obstructs, disrupts, or interferes with any teaching, educational, research, administrative, disciplinary, public service, or other activity or public performance authorized to be held or conducted on campus or on property or in a building or facility owned or controlled by the UT System or institution is subject to discipline. Obstruction or disruption includes but is not limited to any act that interrupts, modifies, or damages utility service or equipment, communication service or equipment, university computers, computer programs, computer records or computer networks accessible through the university’s computer resources.

2.6 Inciting Lawless Action
Any student who engages in speech, either orally or in writing, which is directed to inciting or producing imminent lawless action and is likely to incite or produce such action, is subject to discipline.

2.7 Unauthorized Use of Property
Any student who engages in the unauthorized use of property, equipment, supplies, buildings, or facilities owned or controlled by the UT System or institution is subject to discipline.

2.8 Hazing
Any student who, acting singly or in concert with others, engages in hazing is subject to discipline. Hazing in state educational institutions is prohibited by state law (Texas Education Code, Section 51.936). Hazing with or without the consent of a student whether on or off campus is prohibited, and a violation of that prohibition renders both the person inflicting the hazing and the person submitting to the hazing subject to discipline. Initiations or activities of organizations may include no feature that is dangerous, harmful, or degrading to the student and a violation of this prohibition renders both the organization and participating individuals subject to discipline.

2.9 Altering of Official Documents
A student who alters or assists in the altering of any official record of the UT System or institution or who submits false information or omits requested information that is required for or related to an application for admission, the award of a degree, or any official record of the UT System or institution is subject to discipline. A former student who engages in such conduct is subject to bar against readmission, revocation of degree, and withdrawal of diploma.

2.10 Vandalism
Any student, who defaces, mutilates, destroys, or takes unauthorized possession of any property, equipment, supplies, buildings, or facilities owned or controlled by an institution or the UT System is subject to discipline.

2.11 Prohibited Conduct
A student is subject to discipline for prohibited conduct that occurs while participating in off-campus activities sponsored by an institution or the UT System including field trips, internships, rotations, or clinical assignments.

2.12 Use of Explosives, Weapons or Hazardous Chemicals
Unless authorized by federal, state, or local laws, a student who possesses or uses any type of explosive, firearm, imitation firearm, ammunition, hazardous chemical, or weapon as defined by state or federal law, while on campus or on any property or in any building or facility owned or controlled by the UT System or institution, is subject to discipline.

2.13 Prohibited Conduct During Suspension
A student who receives a period of suspension as a disciplinary penalty is subject to further disciplinary action for prohibited conduct that takes place on campus during the period of suspension.

Sec. 3 Bar from Campus
A former student who has been suspended or expelled for disciplinary reasons is prohibited from being on the campus of any institution during the period of such suspension or expulsion without prior written approval of the chief student affairs officer of the institution at which the suspended or expelled student wishes to be present.

Sec. 4 Disciplinary Process
Disciplinary charges will be investigated by the Dean or the Dean’s designee. Any student may be summoned by written request of the Dean for a meeting for purposes of the investigation and/or to discuss the allegations. The written request shall specify a place for the meeting and a time at least three weekdays after the date of the written request if the request is sent regular mail, or at least two weekdays after the date of the request if the request is sent by e-mail or hand delivered. The written request may be mailed to the address appearing in the records of the registrar, e-mailed to the student at the e-mail address on record with the U.T. institution, or may be hand delivered to the student. If a student fails to appear without good cause, as determined by the Dean, the Dean may bar or cancel the student’s enrollment or otherwise alter the status of the student until the student complies with the summons, or the Dean may proceed to implement the disciplinary procedures provided for in Section 5 of this Rule. The refusal of a student to accept delivery of the notice, the failure to maintain a current address with the registrar, or failure to read mail or e-mail shall not be good cause for the failure to respond to a summons.

4.1 Interim Disciplinary Action:
Pending a hearing or other disposition of the allegations against a student, the Dean may take such immediate interim disciplinary action as is appropriate to the circumstances when such action is in the best interest of the institution. This includes but is not limited to a suspension and bar from the campus when it reasonably appears to the Dean from the circumstances that the continuing presence of the student poses a potential danger to persons or property or a potential threat for disrupting any activity authorized by the institution.

4.2 Timeliness of Hearing
When interim disciplinary action has been taken by the Dean under Section 4.1 immediately above, a hearing of the charges against the student will be held under the procedures specified in Section 5 immediately below. A hearing following interim disciplinary action will generally be held within 10 days after the interim disciplinary action was taken; however, at the discretion of the Dean of Students the 10 day period may be extended for a period not to exceed an additional 10 days.
4.3 Withholding Transcripts, Grades, and Degrees
Notwithstanding the above, the Dean may withhold the issuance of an official transcript, grade, diploma, certificate, or degree to a student alleged to have violated a rule or regulation of the UT System or its institutions which would reasonably allow the imposition of such penalty. The Dean may take such action pending a hearing, resolution by administrative disposition, and/or exhaustion of appellate rights if the Dean has provided the student an opportunity to provide a preliminary response to the allegations and in the opinion of the Dean, the best interests of UT System or the institution would be served by this action.

4.4 Administrative Disposition.
1. In any case where the accused student elects not to dispute the facts upon which the charges are based and agrees to the sanctions the Dean assesses, the student may execute a written waiver of the hearing procedures specified in Section 5 immediately below. This administrative disposition shall be final and there shall be no subsequent proceedings regarding the charges.
2. In any case where the accused student elects not to dispute the facts upon which the charges are based, but does not agree with the sanctions assessed by the Dean, the student may execute a written waiver of the hearing procedures specified in Section 5 immediately below yet retain the right to appeal the decision of the Dean only on the issue of penalty. The appeal regarding the penalty will be to the president of an institution.

Sec. 5 Hearing Process
In those cases in which the accused student disputes the facts upon which the charges are based, such charges shall be heard and determined by a fair and impartial Hearing Officer.

5.1 Notice of Hearing
Except in those cases where immediate interim disciplinary action has been taken, the accused student shall be given at least 10 days written notice of the date, time, and place for such hearing and the name of the Hearing Officer. The notice shall include a statement of the charge(s) and a summary statement of the evidence supporting such charge(s). The notice shall be delivered in person to the student or mailed to the student at the address appearing in the registrar’s records. A notice sent by mail will be considered to have been received on the third day after the date of mailing, excluding any intervening Sunday. The date for a hearing may be postponed by the Hearing Officer for good cause or by agreement of the student and Dean.

5.2 Impartiality of the Hearing Officer
The accused student may challenge the impartiality of the Hearing Officer. The challenge must be in writing, state the reasons for the challenge, and be submitted to the Hearing Officer through the Office of the Dean at least three days prior to the hearing. The Hearing Officer shall be the sole judge of whether he or she can serve with fairness and objectivity. In the event the Hearing Officer disqualifies himself or herself, a substitute will be chosen in accordance with procedures of the institution.

5.3 Burden of Proof
Upon a hearing of the charges, the Dean or other institutional representative has the burden of going forward with the evidence and has the burden of proving the charges by the greater weight of the credible evidence.

5.4 Duties of Hearing Officer
The Hearing Officer is responsible for conducting the hearing in an orderly manner and controlling the conduct of the witnesses and participants in the hearing. The Hearing Officer shall rule on all procedural matters and on objections regarding exhibits and testimony of witnesses, may question witnesses, and is entitled to have the advice and assistance of legal counsel from the Office of General Counsel of the System. The Hearing Officer shall render and send to the Dean and the accused student a written decision that contains findings of fact and a conclusion as to whether the accused student is responsible for the violations as charged. Upon a finding of responsibility the Hearing Officer shall assess a penalty or penalties specified in Section 6 immediately below. When an accused student is found responsible for the illegal use, possession, or sale of a drug or narcotic on campus, the assessment of a minimum penalty provided in Section 2.3 immediately above is required.

5.5 Minimal Rights
The hearing shall be conducted in accordance with procedures adopted by the institution that assure the institutional representative and the accused student the following minimal rights:

1. Each party shall provide the other party a list of witnesses, a brief summary of the testimony to be given by each, and a copy of documents to be introduced at the hearing at least five days prior to the hearing.
2. Each party shall have the right to appear, present testimony of witnesses and documentary evidence, cross-examine witnesses, and be assisted by an advisor of choice. The advisor may be an attorney. If the accused student’s advisor is an attorney, the Dean’s advisor may be an attorney from the Office of General Counsel of the System. An advisor may confer with and advise the Dean or accused student, but shall not be permitted to question witnesses, introduce evidence, and make objections or present argument to the Hearing Officer. The Dean may recommend a penalty to be assessed by the Hearing Officer. The recommendation may be based upon past practice of the institution for violations of a similar nature, the past disciplinary record of the student, or other factors deemed relevant by the Dean. The accused student shall be entitled to respond to the recommendation of the Dean.
3. The hearing will be recorded. If either party desires to appeal the decision of the Hearing Officer, the official record will consist of the recording of the hearing, the documents received in evidence, and the decision of the Hearing Officer. At the request of the president of an institution the recording of the hearing will be transcribed and both parties will be furnished a copy of the transcript.

Sec. 6 Penalties
The following penalties may be assessed by the Dean pursuant to Section 4.3 immediately above or by the Hearing Officer after a hearing in accordance with the procedures specified in Section 5.5 immediately above:

6.1 Disciplinary probation.
6.2 Withholding of grades, official transcript, and/or degree.
6.3 Bar against readmission.
6.4 Restitution or reimbursement for damage to or misappropriation of institutional or UT System property.
6.5 Suspension of rights and privileges, including participation in athletic or extracurricular activities.

6.6 Failing grade for an examination or assignment or for a course and/or cancellation of all or any portion of prior course credit.

6.7 Denial of degree.

6.8 Suspension from the institution for a specified period of time.

6.9 Expulsion (permanent separation from the institution).

6.10 Revocation of degree and withdrawal of diploma.

6.11 Other penalty as deemed appropriate under the circumstances.

Sec. 7 Appeal

A student may appeal a disciplinary penalty assessed by the Dean in accordance with Section 4.3 immediately above. Either the Dean or the student may appeal the decision of the Hearing Officer. An appeal shall be in accordance with the following procedures:

7.1 Appeal Procedures

The appealing party must submit a written appeal stating the specific reasons for the appeal and any argument, to the president of the institution, with a copy to the other party. The appeal must be submitted as received by the President’s Office no later than 14 days after the appealing party has been notified of the sanction assessed by the Dean or the decision of the Hearing Officer. If the notice of sanction assessed by the Dean or the decision of the Hearing Officer is sent by mail, the date the notice or decision is mailed initiates the 14-day period for the appeal. The appeal must be submitted as received by the President’s Office no later than 5 days after receipt of the appeal with a copy to the other party. An appeal of the sanction assessed by the Dean in accordance with Section 4.4(b) immediately above will be reviewed solely on the basis of the written argument of the student and the Dean. The appeal of the decision of the Hearing Officer will be reviewed solely on the basis of the record from the hearing. The Dean will submit the record from the hearing to the president as soon as it is available to the Dean. At the discretion of the president, both parties may present oral argument in an appeal from the decision of the Hearing Officer.

7.2 President’s Authority

The president may approve, reject, or modify the decision in question or may require that the original hearing be reopened for the presentation of additional evidence and reconsideration of the decision. It is provided, however, that upon a finding of responsibility in a case involving the illegal use, possession, and/or sale of a drug or narcotic on campus, the sanction may not be reduced below the sanction as prescribed by Section 2.3 immediately above.

7.3 Communication of Decision

The action of the president shall be communicated in writing to the student and the Dean within 30 days after the appeal and related documents have been received. The decision of the president is the final appellate review.

Sec. 8 Disciplinary Record

Each institution shall maintain a permanent written disciplinary record for every student assessed a sanction of suspension, expulsion, denial or revocation of degree, and/or withdrawal of diploma. A record of scholastic dishonesty shall be maintained for at least five years unless the record is permanent in conjunction with the above stated penalties. A disciplinary record shall reflect the nature of the charge, the disposition of the charge, the penalty assessed, and any other pertinent information. This disciplinary record shall be maintained by the Office of the Dean of Students. It shall be treated as confidential, and shall not be accessible to or used by anyone other than the Dean or university officials with legitimate educational interests, except upon written authorization of the student or in accordance with applicable state or federal laws or court order or subpoena.

4. Definition

Chief Student Affairs Officer

The Assistant Vice President for Student Services is the administrative officer primarily responsible for the development and administration of policies relating to students, for the development and implementation of services to students, and for the initial preparation of institutional regulations that will implement the policies and regulations set forth in this rule. Associate/Assistant Dean of Student Affairs – Refers to the administrative officer or officers responsible for the administration of the disciplinary process at each institution. Hearing Officer – An individual or individuals selected in accordance with procedures adopted by the institution pursuant to the recommendation of the Chief Student Affairs Officer to hear disciplinary charges, make findings of fact, and, upon a finding of guilt, impose an appropriate sanction(s). Student – The following persons shall be considered students for purposes of these policies and regulations:

- A person currently enrolled at an institution of the UT System.
- A person accepted for admission or readmission to an institution of the UT System.
- A person who has been enrolled at an institution of the UT System in a prior semester or summer session and is eligible to continue enrollment in the semester or summer session that immediately follows.
- A person who engaged in prohibited conduct at a time when he or she met the criteria of 1, 2, or 3 immediately above.

Campus

Consists of all real property, buildings, or facilities owned or controlled by the institution.

Weekday

Monday through Friday, excluding any day that is an official holiday of the institution or when regularly scheduled classes are suspended due to emergent situations.

Day

A calendar day; except for days on which the university is officially closed or when regularly scheduled classes are suspended due to emergent situations.

5. Relevant Federal and State Statutes

Texas Education Code Section 51.936 – Hazing

6. Relevant System Policies, Procedures, and Forms

None

7. Who Should Know

- Administrators
- Dean of Students
UNIVERSITY POLICY

It is the policy of The University of Texas Health Science Center San Antonio to inform students of their scholastic standing in keeping with the following designations: Good Standing, Scholastic Probation and Scholastic Suspension.

PERTINENT INFORMATION

The Southern Association of Colleges and Schools requires that each institution clearly define and publish its policy regarding suspension and readmission of students for academic reasons.

OPERATING REQUIREMENTS

Good Standing

A student who maintains minimum 2.00 standards of progress cumulative and term grade point averages will be in good academic standing.

Scholastic Probation

A student whose standards of progress cumulative or term grade point average is below 2.00 at the end of an enrollment period is placed on scholastic probation. A student may continue on scholastic probation by achieving a minimum standard of progress term grade point average of 2.00 at the end of the enrollment period. A student is removed from scholastic probation when the standards of progress cumulative and term grade point averages are 2.00 or above.

Scholastic probation is a serious warning that the quality of the student’s work must improve in order for the student to continue enrollment at the university. Students on scholastic probation are required to meet with their advisor prior to registration and may be required to enroll in special programs or courses in order to improve grade point average. After advisement, the student may be permitted to enroll while on scholastic probation.

Scholastic Suspension

Scholastic suspension occurs when a student on scholastic probation fails to maintain minimum academic standards. A student on scholastic probation who fails to achieve a standard of progress term grade point average of 2.00 or higher will be suspended for one calendar year. A suspended student may appeal for a waiver of a suspension to the instructional dean or designee. Any student who is scholastically suspended will be permitted to reapply for admission one calendar year from the scholastic suspension term. A student who re-enters the university after having been suspended will be placed on scholastic probation status and will be subject to the minimum requirements governing scholastic probation.

Students should consult directly with their respective dean’s offices for additional information regarding scholastic and academic standing.

Policy on Auditing Courses

UNIVERSITY POLICY

It is the policy of The University of Texas Health Science Center at San Antonio (HSC) to permit a student to audit a course when:

1. Classroom and laboratory space is available
2. Classroom instructor approves the audit
3. Approval is given from the instructor the Office of the Registrar
4. Applicable registration fees are paid

A Permit to Audit may be cancelled if the space is necessary to admit a student desiring to enroll in the class for course credit.

PERTINENT INFORMATION

The UT System Board of Regents approves all fees. See the Schedule of Tuition and Fees (p. 27) for the most current fees in addition to regular course tuition.

Students auditing courses are subject to rules and standards of other offices, such as the Office of the Registrar and the Office of Veteran Services and Financial Aid.

UNIVERSITY PROCEDURE

Students auditing a course will:

1. Comply with Texas State Legislation that mandates those who have not been continuously enrolled at UT Health Science Center must have received the bacterial meningitis vaccine within the past five years.
2. Obtain permission from the instructor of record on a “Course Audit Request” form available from the Office of the Registrar
3. If permission is approved, complete the following admission procedures at the Office of the Registrar by the first day of class:
   a. Register using the Add/Drop Form procedures;
   b. Pay necessary fees;
4. Students auditing courses:
   a. Have the full rights and privileges in the class which are afforded all other students of the course, such as use of laboratory facilities, test taking, check out materials, etc.;
   b. Are subject to the same responsibilities of classroom policies as all other students in the course;
   c. Must take and pass all safety tests associated with the course in order to retain laboratory privileges;
   d. Receive a grade of “AU” unless withdrawn from the course. The grade will be reported on the grade report and transcript. The audited course will not be used to determine “good standing” or satisfactory progress.” Auditing consists of
the privilege of hearing and observing only, with no active participation, such as submitting papers, taking part in class discussions or receiving a grade or credit for the course. Audited courses do not appear on an academic transcript.

e. May take a course for credit after auditing the course if approved by their school’s designated dean;

f. Cannot receive credit by examination for a course audited;

g. Cannot use an audited course as a substitution for credit for any other course.

Registration for Audit

Students may be required to audit previously attempted courses as a requirement of remediation. Standards of performance are set by course instructors, academic or clinical coordinators, department committee, or the department chair.

Permission to audit one or more courses is granted according to schools’ discretion. Auditing conveys only the privilege of observing and excludes handing in papers or taking part in a class discussion, laboratory exercises, or fieldwork. No grade is given and no credit is reported. Graduate students must obtain permission to register to audit a course from the course director and the COGS chair of the program in which they are enrolled. Others who wish to register to audit a graduate course must apply to the Associate Dean of the Graduate School for admission as a Non-Degree Student

Auditing Courses in the Dental Hygiene Program of the Dental School

Students who have transferred courses from other accredited institutions for credit in Dental Hygiene (http://www.uthscsa.edu/shp/dh) programs or those who successfully pass course challenge examinations may elect to audit these same courses while enrolled in the curriculum in order to assure retention of those concepts/skills. Students who elect to or who are required to audit any course are expected to be present and participate in all lectures/class sessions, laboratories, and/or clinics specified by the course director. Students may take examinations or evaluations while auditing a didactic course with the approval of the course director. Students auditing a course with laboratory or psychomotor skills may be required to demonstrate competency in the psychomotor aspects of the course. Professionalism standards apply to students auditing any dental hygiene course.

Auditing Courses in the School of Nursing

Students may not attend class without proof of registration, either as a matriculated or an auditing student. Anyone may audit a non-clinical course in the School of Nursing (http://nursing.uthscsa.edu) with the approval of the appropriate Graduate Program Director, and based on space available. A student auditing a course is not permitted to participate in any clinical activity of the course. The appropriate Graduate Program Director seeks the consent of the course instructor. Students pay an audit fee. It is the instructor’s prerogative to stipulate expectations of attendance or assignments for auditors. Audited courses will be recorded on the transcript as audited (AU). No audited course may be taken subsequently for credit.

Change of Personal Information

Students may change their personal biographical information by visiting the Office of the Registrar (http://students.uthscsa.edu/registrar), or by logging in to The Portal (http://inside.uthscsa.edu) and accessing Student Administration. Changes made in person are processed within 48 business hours, while changes made by students online are instantaneous. Students should note that name changes can only be made in person at the Office of the Registrar so that staff may verify supporting documentation for the name change.

Name changes must be requested in person at the Office of the Registrar (http://students.uthscsa.edu/registrar), and copies of supporting documentation for the legal name change must be provided as well. For more information on the process, contact the office at registrars@uthscsa.edu, or access the website (http://students.uthscsa.edu/registrar).

Policy on Classification of Students

Classification by School and Program

Students are classified according to school and program, as well as attendance statuses that include full-time, half-time, or less-than-half-time.

Students are also classified according to their schools and programs. This is also known as the institution’s academic structure. Students are associated with one of the institution’s five schools, as well as his or her academic program under that school and, if applicable, a track under that academic program. These designations may be found on students’ enrollment verifications and official transcripts.

Classification by Attendance and Number of Hours Enrolled

A graduate student is considered full-time if he or she is registered for a minimum of:

• 9 semester credit hours during a fall or spring semester; or
• 6 semester credit hours in a summer semester.

A graduate student is considered half-time if he or she is registered for a minimum of:

• 5 semester credit hours during a fall or spring semester; or
• 3 semester credit hours in a summer semester.

Any hours less than those enumerated above for graduate students prompt classification as less-than-half-time.

An undergraduate student is considered full-time if he or she is registered for a minimum of:

• 12 semester credit hours during a fall or spring semester; or
• 12 semester credit hours in a summer semester.

An undergraduate student is considered half-time if he or she is registered for a minimum of:

• 6 semester credit hours during a fall or spring semester; or
• 6 semester credit hours in a summer semester.

Any hours less than those enumerated above for undergraduate students prompt classification as less-than-half-time.

Schools may impose additional semester credit hour requirements for students holding assistantships or fellowships which exceed the minimum stated above. Exceptions to the above criteria are rare, but include
students enrolled in academic programs where the combination of hours of academic course work, work, research, or special studies is sufficient to warrant a classification of full-time. These exceptions are specified elsewhere in the catalog in the applicable program description(s).

It is also imperative that international students contact The Office of International Services to verify the minimum number of hours required to maintain specific visa statuses and types.

**Concurrent Enrollment Policy**

**UNIVERSITY DECISION**

It is decision of The University of Texas Health Science Center San Antonio (HSC) to establish agreements between specified universities to facilitate the admission and registration process. Students must be currently enrolled at their home institution in order to participate. Admission to The HSC is not necessarily guaranteed under such agreements.

**PERTINENT INFORMATION**

The Texas Education Code 54.011 states that when students register at more than one public institution of higher education at the same time, their tuition charges shall be determined in the following manner:

- The student shall pay the full tuition charge to the first institution at which the student registered; and in any event the student shall pay an amount at least equal to the minimum tuition specified in this code.

- If the minimum tuition specified in this code for the first institution at which the student is registered is equal to or greater than the minimum tuition specified in this code for the second institution at which the student is registered concurrently, the student shall not be required to pay the specified minimum tuition charge to the second institution in addition to the tuition charge paid to the first institution, but shall pay only the hourly rates, as provided in this code, to the second institution.

- If the minimum tuition specified in this code for the first institution at which the student is registered is less than the specified minimum tuition charge at the second institution (that is, if the second institution has a higher minimum tuition charge specified in this code), then the student shall first register at the institution having the lower minimum tuition and shall pay to the second institution only the amount equal to the difference between the total tuition charge at the second institution and the total tuition charge at the first institution, but in no case shall the student pay to the second institution less than the hourly rates as provided in this code.

- If a student is considered to be a Texas resident and therefore qualified to pay Texas resident tuition rates by one institution at which she or he is registered, that student shall be considered a Texas resident at each of the institutions at which she or he is concurrently registered for the purposes of determining the proper tuition charges. Nothing in this subdivision shall be so construed as to allow a nonresident to pay resident tuition except at institutions covered by Section 54.060 of this code.

**DEFINITION OF TERMS**

**Concurrent enrollment** refers to taking courses at another university, a community college, or UT’s University Extension program (online, web-based, or traditional classroom) while also enrolled in classes at the HSC.

Students may count classes taken concurrently at another institution if the following criteria are met:

- They have met with their academic programs and obtained permission
- They are not in their first semester of enrollment at the HSC
- They possess a cumulative GPA of at least 2.5

**Joint Admission** refers to the process established by formally approved agreements between two institutions, typically with another institution identifying qualified program participants and applicants as eligible for admission to the HSC. In some cases admission may be guaranteed. More information is available under each school’s admissions policies in this Catalog.

**Home Institution** refers to the institution that a concurrently enrolled student identifies as his or her primary institution, where at a majority of classes are expected to be taken, and from which the published diploma will be awarded. Only the institution awarding the degree will report the degree awarded to The Texas Higher Education Coordinating Board.

**PROCEDURE**

**Students Responsibilities**

- Students must discuss their degree plans with their departments before requesting concurrent enrollment.
- Students are responsible for determining whether their course(s) will satisfy any outstanding degree requirements at the home institution.
- A minimum of 24 of the last 30 hours taken towards the degree must be in academic residence (taken at the degree-granting institution).
- Courses taken via UT Extension and/ or at another institution do not count toward this requirement.
- Particular courses may transfer to the HSC and may count toward degree requirements; however, the course may not give the foundation necessary for future coursework in that field at the HSC.
- UT Extension coursework (web-based, classroom, or correspondence) will count toward students’ GPAs at the HSC; transfer courses from other educational institutions will not count towards their GPAs at the HSC.
- Students who take a course concurrently at another educational institution must arrange for that institution to send an official transcript to The Office of the Registrar at the HSC. Only courses with grades of “C-” or better will transfer and, if concurrent enrollment has been approved, will be counted toward a degree at the HSC; P/F (pass/fail) grades will only count toward electives.
- Students must complete coursework by the last class day published on official academic calendars (http://students.uthscsa.edu/registrar/2013/04/academic-calendar) at the HSC for the semester in which they petition for concurrent enrollment.
- Approval for Concurrent Enrollment must be obtained through students’ respective academic programs each semester, with approval reaching The Office of Veteran Services and Financial Aid (http://students.uthscsa.edu/financialaid) as well.
• Students are required to visit with The Office of Veteran Services and Financial Aid (http://students.uthscsa.edu/financialaid) prior to registration at a secondary institution in order to plan for any changes to the awarding of financial aid and other forms of assistance.

Curriculum and Credit Hours Policy

Pertinent Information

As part of the continued accreditation of the institution, the Southern Association of Colleges and Schools Commission on Colleges (SACS-COC) performs reviews of the institution’s assignment of credit hours. Academic credit has stipulated the basis for measuring the amount of engaged learning time expected of a student enrolled not only in the traditional classroom settings but also laboratories, clinics, seminars, practicums, internships and other experiential learning, and distance and correspondence education. The common use of academic credit amongst all institutions ensures the transfer of coursework from one institution to another. The federal government also relies on the academic credit to assess student academic engagement as a basis of awarding financial aid. The amount of credit awarded for undergraduate and graduate courses is based on the unit of the semester credit hour, in accordance with the Texas Higher Education Coordinating Board (THECB) rules (Title 19 Texas Administrative Code, 4.6).

Definition of Terms

Semester Credit Hour

34 CFR § 600.2 defines the amount of work represented in intended learning outcomes and verified by evidence of student achievement within one semester (fall, spring or summer) that is an institutionally established equivalency that reasonably approximates:

1. Not less than one hour of classroom or direct faculty instruction and a minimum of two hours out of class student work each week for approximately fifteen weeks for one semester or trimester hour of credit, or ten to twelve weeks for one quarter hour of credit, or the equivalent amount of work over a different amount of time, or

2. At least an equivalent amount of work as required outlined in item 1 above for other academic activities as established by the institution including laboratory work, internships, practicums, studio work, and other academic work leading to the award of credit hours. (See 34 CFR 668.8(k) and (l).)

“Credit hour” may be used interchangeably at The University of Texas Health Science Center at San Antonio (HSC) with “semester credit hour” or “unit.”

Contact Hour

A measure of the amount of contact, whether face-to-face or virtual, that a student has with an instructor or instructional assistant such as a research assistant or preceptor. The total number of contact hours across all components of a course help determine the number of semester credit hours awarded for successful completion of the course.

Credit Hour

Credit hours are calculated based on the number of contact hours associated with each component of a course, and based on the school or program in which it is offered. A credit hour is a unit of measure representing 50 minutes of instruction per class over a 15-week period in a semester system or a 10-week period in a quarter system. It is applied toward the total number of hours needed for completing the requirements of a degree, diploma, certificate or other formal award.

A credit hour is an institutionally established equivalency that reasonably approximates some minimum amount of student work reflective of the amount of work expected in a Carnegie unit: key phrases being “institutionally established,” “equivalency,” “reasonably approximates,” and “minimum amount.”

Liaison Committee on Medical Education (LCME) Program Length and Academic Credit

Defined as term of instruction, rather than semester hours and it requires a minimum of 130 weeks of instruction for education programs leading to the Doctor of Medicine degree.

Component

This describes the learning environment(s) in which student learning takes place. For the calculation of semester credit hours, UT Health Science Center recognizes the following components:

• Clinical
• Conference
• Laboratory
• Lecture
• Practicum
• Pre-clinical
• Seminar

University Procedure

Course Development

Course developers are to ensure that the quantity of student learning required per credit hour is the equivalent of 15 hours (=1 semester for the final) of coursework for the semester through activities that:

1. Address and demonstrate student competency in the defined learning outcomes; and

2. Draw upon recommended instructional practices identified by HSC’s Office of the Registrar (see contact to credit hour ratio).

Student learning outcome equivalencies are to be based on documented qualitative and quantitative expectation for:

1. Time required of students to complete assigned learning activities, taking into account expectations based on degree level, discipline, and weight in students’ final course grade;

2. Time required of students to read and understand content developed by course faculty, excluding time required to read assignments in a course syllabus;
3. Time required of course faculty to respond to student questions received via e-mail, posted in the online classroom, and/or discussed in the online class chat room; and

4. Time required of course faculty and students to participate in online conference activities.

Student learning outcome equivalencies reflect differences in delivery methods, quality of instruction and interaction, degree of supervision, measurements of student work, academic disciplines, academic calendars, and degree levels.

Each School is responsible for demonstrating to SACS that these requirements are met for both courses composed of seat-time and other alternative delivery methods.

CREDIT HOUR BY COURSE

The Office of the Registrar is responsible for calculating the number of semester credit hours associated with courses given the definitions above. The Office of the Registrar strongly advises against courses that carry variable credit hours, that is, courses whose credit hours vary by student or by semester. This is because consistency and fairness are expected procedurally and with respect to the content of a course and the amount of instruction a student receives from an instructor.

AMOUNT AND LEVEL OF CREDIT

The amount and level of credit awarded for courses for each program by the School is determined by each school's Dean's Office, in conjunction with the Office of the Registrar. The Office of the Registrar uses established practices for awarding credit as specified by the THECB (Title 19 Texas Administrative Code, Section 4.6).

Each School is responsible for establishing a formal faculty review process to ensure that the amount and level of credit awarded for the undergraduate and graduate courses is compatible with the sound academic practice in the given field. As part of the review process, faculty ensure that all distance education courses have learning outcomes that are equivalent to the outcomes for the same or similar courses delivered through traditional formats.

The THECB requires that every student pursing a baccalaureate degree program complete a core curriculum consisting of 42 credit hours that includes content from both Chart I and Chart II of the Texas Administrative Code, Section 4.28 (http://info.sos.state.tx.us/pls/pub/readtacext.TacPage?sl=R&app=9&p_dir=&p_rloc=&p_tloc=&p_ploc=&pg=1&chl=19&ch=4&rl=28). The Health Science Center curriculum assures that all undergraduate programs provide an appropriate breadth of knowledge in these required areas. If the student has already completed a core curriculum from another Texas public institution in a previous degree program, they are not required to complete the Health Science Center core curriculum.

CREDIT HOURS REQUIRED GRADUATING

Each program requires a designated minimum number of hours to graduate. No student shall graduate without meeting this minimum as documented on the official transcript. For this reason, any credit gained through course substitutions, waivers, or by challenge exams must be appropriately documented on designated forms in The Office of the Registrar.

EXCESS CREDIT HOURS

Undergraduate students and graduate students seeking doctoral degrees are subject to rules in the Texas Education Code that limit the number of hours they may take before receiving the intended degree. For undergraduate students, these hours are based on a cumulative total across all institutions of higher education they attended, including technical and community colleges. Some exceptions are allowed. For graduate students, these hours are based only on hours taken at UT Health Science Center. See the Excess Hours Policy in this Catalog for details.

Contact to Credit Hour Ratio: = 1 hour of credit

<table>
<thead>
<tr>
<th>Program</th>
<th>Lecture</th>
<th>Conference</th>
<th>Laboratory</th>
<th>Seminar</th>
<th>Practicum</th>
<th>Clinical Pre-</th>
<th>Clinical Post-doctoral</th>
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<tr>
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<td>30.0</td>
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<td>15.0</td>
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<td>16.0</td>
<td>48.0</td>
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<tr>
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<tr>
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<td>45.0</td>
<td>15.0</td>
<td>N/A</td>
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<tr>
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<td>15.0</td>
<td>40.0</td>
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<tr>
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<td>15.0</td>
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SCHOOL OF MEDICINE (PRECLINICAL YEARS)

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School of Medicine (Clinical Years)

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<th>1 Week</th>
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</table>

School of Nursing

<table>
<thead>
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<th>15.0</th>
<th>45.0</th>
<th>45.0</th>
<th>N/A</th>
</tr>
</thead>
</table>

Suggestions for meeting hours of student work per week outside of instruction time:

- Online and hybrid courses must meet the same credit hour requirements as face-to-face courses.
- Faculty teaching online and hybrid courses must account for 48 hours of instructional time for every 3 credit hours.
- Logging on constitutes neither active faculty teaching nor active student learning. Faculty must demonstrate active faculty engagement in online teaching/instructing students. Methods such as discussion boards, chats, etc. can serve as instructional time.
- Other methods may include instructional how-to videos, small group activities, virtual labs, required participation in live or online discussion (e.g. review sessions, Blackboard chat, case discussions, or other instructor-driven self-guided activity delivered live or by electronic media).
- Faculty may also consider field experiences, cultural events, group projects, increased course content, research and information literacy, service learning and civic engagement, individual or group conferences, oral presentations, or other methodology that should contain some rationale for SACs.
- Activities that are counted for credit by be required and structured. Examples of activities that do not count toward instructional time: readings, homework and other intrinsic preparation or activities (e.g. practicing calculations).
- This is meant to be a living policy which evolves with the integration of innovative methodologies and new instructional technologies into the curriculum.

Final Credit Hours Policy

UNIVERSITY DECISION

It is the decision of the University to offer graduate level students seeking Master’s or doctoral degrees to claim “final hours” in order to qualify for full-time status despite being registered for fewer hours than necessary to achieve that classification.

PERTINENT INFORMATION

A student in her/his final semester or summer session registering only for thesis or dissertation may register for “final hours.” When a student declares “final hours” for a semester, the student shall be considered enrolled in a full-time course load for that semester. The student pays tuition based upon the number of credit hours for which he/she registers.

UNIVERSITY PROCEDURE

A Ph.D. student must register for a minimum of 3 semester credit hours; and an M.S. student must register for a minimum of 1 semester credit hour. The Request for Designation of Final Hours Form is available online through The Portal (http://inside.uthscsa.edu) under the “Students” tab. It must be completed along with required signatures and submitted to The Office of the Registrar by the first official class day according to the student’s respective academic calendar (http://students.uthscsa.edu/registrar/2013/04/academic-calendar). A student may register for final credit hours only once during her/his degree program. If a student registers for a subsequent semester and registers for fewer hours than necessary to be classified as full-time, the student will be classified and reported as less than full time.

Academic Texas Core Curriculum

Students who will be receiving their first baccalaureate degrees from The University of Texas Health Science Center at San Antonio (HSC) must successfully complete the Texas Core Curriculum requirements. See the General Education Core Curriculum Policy for more information, including changes to the HSC’s Core Curriculum based on legislation passed in 2013 and applicable to students matriculating in the fall of 2014.

The Texas Common Course Numbers (TCCN) are provided for guidance. Information is available online (http://www.tccns.org); click on ACGM (The Lower-Division Academic Course Guide Manual of the THECB Community and Technical Colleges Division). Applicants are encouraged to contact the Office of the Registrar (http://students.uthscsa.edu/registrar) or the respective school/program office to inquire about other courses that may satisfy Core Curriculum requirements.

If a student’s transcript from another Texas public college or university indicates that the student has completed the institution’s core curriculum, no additional core curriculum requirements will be imposed. If a student has not completed the core requirements at another Texas institution prior to entering the HSC, the HSC will accept academic credits from another Texas public college or university the core curriculum courses successfully completed, with grades of “C” or better only. The same requirements also apply to out of state students.

College Level Examination Program (CLEP) credit may be accepted for core curriculum requirements. The maximum number of hours accepted for CLEP shall be established by the respective school/program. More information is available in the Policy on awarding academic credit, transfers, and substitutions in this Catalog.

Distance Education Policy

The University of Texas Health Science Center San Antonio’s commitment to academic excellence includes consistency between traditional classroom instruction and distance education. The purpose of this operating policy is to provide a framework for the development, implementation, and maintenance of formal degree and certificate programs and courses offered via distance education for academic credit.
Administration

The school-specific administration is responsible for the administration of distance education programs and course delivery. The school-specific deans report to the President.

Health Science Center Commitment

All schools of the Health Science Center (HSC) shall have an opportunity to participate in providing distance education courses and/or programs and shall be encouraged to provide distance education as appropriate. The HSC shall ensure that all academic programs, including those delivered through distance education, are afforded an adequate resource support structure. The HSC utilizes the Southern Association of Colleges and Schools Commission on Colleges (SACS-COC) definition for distance education for its policy.

Definition

Distance education is defined as a formal educational process in which the majority (more than 50%) of the instruction (interaction between students and instructors and among students) in a course occurs when the student and instructor are not in the same place. Instruction may be synchronous or asynchronous. A distance education course may employ correspondence study, or video, audio or computer technologies.

Policy Statements

• HSC policy mandates that programs offered via distance education shall be consistent with the institutions role, scope, and mission. Development of new online programs and courses will follow the same development and approval procedures as traditional programs and courses.

• The HSC distance education programs have student learning outcomes appropriate for the rigor and breadth of the degree awarded. As a component of the overall assessment, documented assessment of student achievement is conducted in each course and at the completion of the program, by comparing student performance to the intended student learning outcomes.

• HSC evaluation of electronically delivered programs takes place in the context of the regular evaluation of all academic programs.

• Selection of programs to be offered via distance education is the purview of the school-specific leadership. The school-specific administrators and faculty shall provide oversight of a distance education program in the same manner as traditionally delivered face-to-face. Academically qualified persons participate in the decisions concerning program curricula and program oversight.

• School-specific leadership have primary responsibility for developing and implementing effective distance policy, procedure, assessment, and evaluation for all distance education courses and academic programs.

• Courses delivered via distance education (whether or not they are credit or non-credit) are academic department courses approved through the normal curriculum process and must be recorded with the Registrar’s Office.

• Distance education students shall have reasonable and adequate access to the range of student services appropriate to support their successful completion of coursework.

• Faculty who teach through distance education technologies are responsible for acquiring sufficient technical skills to present their subject matter and related material effectively.

• The HSC provides to those responsible for program development orientation and training to help them become proficient in the uses of the program’s technologies, including potential changes in course design and management.

• Distance education students are accountable to the admission standards and enrollment processes as appropriate for the degree program.

• The HSC shall ensure academic integrity for all distance education exams. School level procedures are in place that includes firm student identification.

• The HSC employs a secure log-in authentication to access course materials and educational resources.

• Each distance equation course or degree program shall be evaluated by student in the same manner as on-campus course offerings. School-specific leadership shall review the student evaluation results with faculty and support staff to facilitate the continuous refinement of distance education courses. Consistent with the policies governing on-campus course evaluation, documentation of distance education course evaluations and of the proactive use of the results shall be maintained in the school-specific departments.

• The technology (example Blackboard) used to deliver education instruction must be approved by Academic Technology Services.

Footnote

The Texas Higher Education Coordinating Board recognizes two categories of distance education courses: fully distance education courses and hybrid/blended courses. A fully distance education course is defined as “A course which may have mandatory face-to-face sessions totaling no more than 15 percent of the instructional time. Examples of face-to-face sessions include orientation, laboratory, exam review or an in-person test.” A hybrid/blended course is defined as “A course in which a majority (more than 50 percent but less than 85 percent) of the planned instruction occurs when the students and instructor(s) are not in the same places.”

General Grading Policy

UNIVERSITY DECISION

It is the policy of The University of Texas Health Science Center San Antonio (HSC) to maintain a grading system in conjunction with the five schools, calculate GPAs based on those grades, and to delineate methods by which a grade change on a student’s permanent academic record may be accomplished.

PERTINENT INFORMATION

The HSC must ensure the privacy and integrity of student grade records and at the same time, provide students an orderly and a logical process to appeal final course grade decisions. The student’s official transcript reflects actual grades from the time they were assigned and should not be changed or removed without specific justification and approval.
DEFINITION OF TERMS

Audit
This is a method of class attendance that allows for student observation in a class environment. The grading basis for an audited course is simply “audit,” and carries no GPA weight. Audited courses do not satisfy degree requirements. (For more information, see the Policy on Auditing Courses (p. 43) in this Catalog.)

Remediation by exam
A student may be afforded the opportunity to remediate a failing grade by successfully completing an exam determined appropriate by the academic department. The exam is often a nationally-distributed, standardized exam. Upon successful remediation, the failing grade remains on the transcript but the grade is excluded from GPA calculation.

Remediation by repetition
A student may be afforded the opportunity to remediate a failing grade by repeating a course in its entirety. Upon successful remediation, the failing grade remains on the transcript but the grade is excluded from GPA calculation.

Incomplete Grades
The assignment of an “I” grade indicates that the student failed to complete requirements for the course due to unexpected and extenuating circumstances, such as illness, family emergency, or other non-academic and urgent matters. A grade of Incomplete (I) is not acceptable as a temporizing measure in situations of substandard academic performance. The outstanding work must be completed by the designated date issued by the faculty but no later than one year of the issuance of the I grade. When the course is completed the qualitative grade issued by the instructor will be submitted to the Office of the Registrar using a Change of Grade Form. If the course work is not satisfactorily completed within the designated time, the “I” grade will be changed to an “F” grade. Incomplete grades should not be confused with failing grades of “F,” in which a student failed to complete requirements without proper notice to the instructor.

In Progress Grades
The assignment of an “IP” grade indicates that the course is in progress, and may for logistical reasons span two or more grading periods, whether contained within one semester or spanning two or more semesters. These grades are replaced with iterations of the final grade once it is earned.

Letter Grades
These are awarded as “H” (for Honors ), “A,” “B,” “C,” “D,” or “F,” although not all schools use all these letters. Grading details are also detailed on the back of the university’s official transcript paper.

Withdrawal Grades
A student who has been withdrawn, granted a leave of absence or been dismissed will receive a grade of WP or WF, or W, according to the school’s grading system and as deemed appropriate by the department. Students returning from a leave of absence to the same courses must re-register for the course and pay tuition associated with the hours, along with any course fees.

Academic Year
This is marked by the start and end of the year for a given program. In some cases, the academic year may commence with a summer semester, and in other cases it may commence with the fall semester. In the case of the Dental School and School of Medicine, the academic year begins in the summer months but is not formally or officially marked by any semesters within it.

Calendar Year
This is marked by the months January through December.

GPA
A grade point average is calculated by assigning the following numerical weight to each letter grade:

- A = 4
- B = 3
- C = 2
- D = 1
- F = 0

When courses are repeated for credit, previous grades for the same courses are excluded from GPA calculations, whether or not they were failing, and whether or not they were better than the grade ultimately earned.

Term GPA
This is the grade point average calculated for one semester or, as is the case for the Dental School and School of Medicine, for one academic year.

Cumulative GPA
This is the grade point average calculated across a student’s education within an academic career.

Academic Career
At the HSC, this refers to a student’s general course of study, including one of the following:

- Dental School Graduate
- Dental School Post-Professional
- Dental School Professional
- Dental School Undergraduate
- Graduate School Graduate
- Health Professions Graduate
- Health Professions Undergraduate
- Medical School Graduate
- Medical School Profession
- Nursing School Graduate
Nursing School Undergraduate

UNIVERSITY PROCEDURE

Strict procedures must be followed by all schools when grading students, including accurate and timely entry of such grades for student review and access, the recording and transmission of student grade changes to minimize the possibility of error, omission or authorized change.

Grade Changes

When an instructor discovers that an erroneous grade was reported for a student, he/she shall immediately submit the corrected grade for processing.

a. The currently adopted Change of Grade Form must be used for the purpose of correcting grades on a student's transcript record.

b. The reason for changing a grade recorded in a student's permanent academic record must be provided in writing on the Change of Grade Form and must be signed by the instructor and the Associate Dean. If the instructor of record is no longer employed by the university, the Associate Dean may sign the change of grade.

c. When a grade is changed on a student's permanent academic record, the student shall be notified in writing.

d. A copy of the Change of Grade Form submitted shall be placed in the student's academic record at the Office of the Registrar for audit purposes.

e. Any grade change must be made within one year of the issuance of the grade. No exceptions will be considered thereafter.

Grading Practices

1. A close relationship exists between student evaluation and graduation requirements.

A. Evaluation and grade reporting should reflect the skills, knowledge and/or competencies which can be directly associated with validated task inventories or competency lists. Thus, a close correlation between the evaluation, course objectives and task inventories should be present in the curriculum and instructional materials.

i. Performance levels are defined by the instructional program and may include a variety of learning activities and learning outcomes, which will determine students' level of achievement in the specific skills, knowledge and competencies associated with each course.

ii. Learning activities may include but are not limited to:

a. Individual and group projects
b. Reports or presentations
c. Hands-on demonstrations
d. Participation in class discussions
e. Exercise or lab assignments
f. Homework assignments
g. Quizzes and tests

B. The minimal performance level accepted at the HSC in a student's major courses should relate closely to the minimal or basic requirements associated with the respective school's accreditation requirements. This level of performance varies by school, but may be a D, C, or P.

i. It specifies that the student has demonstrated the acquisition mastery of skills and knowledge or competencies that particularly support the field for which the program is designed.

2. The grading followed by instructors must be appropriate for each student's situation, particularly in the cases of withdrawals, dismissals, and voluntary or administrative leaves of absence. Such situations may include the following:

A. Leaves of Absence: Students approved or mandated to take a leave of absence after the official first day of class and before the administration of final exams will receive grades of "W", "WP" or "WF" in all classes for which they registered but did not already receive a final grade via the student information system. Not all schools use WP or WF.

i. Students must re-register for any dropped courses required for attainment of the degree sought in the next possible semester following return to the university.

ii. Tuition and fees are calculated based on those and any other courses registered for, and must be paid by the Census Date. Students will not receive any monetary credit for classes dropped in previous semesters and outside the Refund Schedule followed by the Bursar's Office for each term.

B. Withdrawals: Students who voluntarily withdraw from the HSC after the official first day of class and before the administration of final exams will receive grades of "W", "WP" or "WF" in all classes for which they registered but did not already receive a final grade via the student information system.

C. Dismissals: Students who are dismissed from The UTHSCSA after the official first day of class and before the administration of final exams will receive grades of "W" in all classes for which they registered but did not already receive a final grade via the student information system. Dismissed students seeking to register for subsequent semesters must reapply for the program of interest and satisfy all requirements anew, including application fees. Admission to dismissed students or any other former students is not guaranteed.

D. Incomplete Grades: When an "I" grade is assigned, a student must complete the coursework by a data specified by the course instructor.

i. The date cannot exceed one year from the end of the term for which the "I" grade was issued.

ii. Upon completion, the instructor should submit a Change of Grade Form to the Office of the Registrar.

iii. If coursework is not satisfactorily completed, the "I" grade will be changed to an "F" one year following the end of the term in which the "I" was recorded. This is an administrative change in grade that occurs by way of an electronic process managed by The Office of the Registrar.

3. The criteria, standards and performance grade must be specified for each course by the instructional program.

A. These may likely include cognitive, psychomotor and affective domains, but should reflect proportionately what is found in the educational practice.
B. Faculty members may consider student participation in specific learning activities when determining final grades, provided students are informed of the required activities at the beginning of the course.

C. Regular class participation is necessary for satisfactory achievement. Therefore, it is the responsibility of the student to participate in lecture and laboratory sessions in accordance with requirements of the course as established and communicated by the faculty member.

4. Faculty members cannot drop or award grades of “W” for students based on non-participation. Students who fail to meet performance requirements for the course within the allotted time frame will receive a grade of “F.”

A. Student performance will be regularly monitored and students will be notified when they fail to meet performance levels.

B. Students will be advised of options for improving performance or withdrawing from the course(s).

C. Students opting to withdraw from the course must follow established procedures.

D. Students should remain aware of the penalties that dropped courses may have on their academic studies and financial aid, including, but not limited to, assessment of non-Texas resident tuition. See the Excess Hours Policy in this Catalog for more information.

5. Student grades are reported upon course completion and are available at times other than at end of term.

A. Each student shall be evaluated and a grade reported in the student information system for each course according to the established grading deadlines.

B. A current status of grades and course completion shall be obtained by students in Student Administration via The Portal (http://inside.uthscsa.edu).

GRADERS and GRADE APPEALS

Grading standards, symbols, grade point scales, and other considerations regarding the quality of work of students are the prerogative of the faculty of the programs, as are issues of promotion and advancement. More details regarding school-specific grading symbols and scales can be found under their respective sections. The student requesting a change of grade bears the burden of proof in establishing the appropriateness of any grade change requested. Thus, the responsibility of providing sufficient input to justify the change of grade requested by the student is to be borne by the student. Processes for grade appeals are also located under each school’s Catalog section.

General Grade Point Average (GPA) Policy

UNIVERSITY POLICY

It is the policy of The University of Texas Health Science Center San Antonio (HSC) to use a standard method for calculating student grade point averages.

PERTINENT INFORMATION

There is no method externally imposed on the HSC for calculation of grade point averages, however the Southern Association of Colleges and Schools specified that an institution “must publish its grading policies and its grading practices must be consistent with policy.”

“GPA” is the abbreviation used to designate “Grade Point Average.”

DEFINITION OF TERMS

Credit Hours

This number is listed in both the schedule of classes and the catalog and represents the hours assigned to a course for credit towards a certificate or degree. Typically the number ranges from 1.0 to 9.0.

Grade Value

The numerical value assigned to a grade: A = 4 points, B = 3 points, C = 2 points, D = 1 point, F = 0 points.

Grade Points

Credit hours for a course times the grade value.

Attempted Hours

Credit hours associated with a course a student was registered for as of the first official day of class, regardless of final outcome or grade.

Earned Hours

Credit hours for a class that is successfully completed (see individual schools’ grading systems).

Repeat

When the course in which the student received a substandard grade is repeated and the last grade earned, whether higher or lower than the original grade, is calculated in the student GPA.

Remediation

This is the process by which a student corrects a failing grade in a class either by taking a national board exam or other standardized exam specific to the program, or repeating the class in the subsequent term to resolve the substandard grade.

Audit

All students must gain approval to audit classes. Auditing generally includes attendance at scheduled lectures or seminars of a class without access to supplemental instruction including labs and discussions. Supplemental instructional materials such as syllabi, online reading and podcasts may not be available. Formal grades are not awarded, although registered students will have the class notated on their transcripts with
a grade of “AU.” For additional information, see the Policy on Auditing Courses in this Catalog.

**Incomplete Grades**

The assignment of an “I” grade indicates that the student failed to complete requirements for the course due to unexpected and extenuating circumstances, such as illness, family emergency, or other non-academic and urgent matters. A grade of Incomplete (I) is not acceptable as a temporizing measure in situations of substandard academic performance. The outstanding work must be completed by the designated date issued by the faculty but no later than one year of the issuance of the I grade. When the course is completed the qualitative grade issued by the instructor will be submitted to the Registrar’s Office using a Change of Grade Form. If the course work is not satisfactorily completed within the designated time the “IP” grade will be change to an “F” grade. Incomplete grades should not be confused with failing grades of “F,” in which a student failed to complete requirements without proper notice to the instructor.

**In Progress Grades**

The assignment of an “IP” grade indicates that the course is in progress, and may for logistical reasons span two or more grading periods, whether contained within one semester or spanning two or more semesters.

**Letter Grades**

These are awarded as “H” (for Honors), “A,” “B,” “C,” “D,” or “F,” although not all schools use all these letters. Grading details are also detailed on the back of the university’s official transcript paper.

**Withdrawal Grades**

A student who has been withdrawn, granted a leave of absence or dismissed will receive a grade of WP or WF, or W, according to the school’s grading system and as deemed appropriate by the department. Students returning from a leave of absence to the same courses must re-register for the course and pay tuition associated with the hours, along with any course fees.

**Academic Year**

This is marked by the start and end of the year for a given program. In some cases, the academic year may commence with a summer semester, and in other cases it may commence with the fall semester. In the case of the Dental School and School of Medicine, the academic year begins in the summer months but is not formally or officially marked by any semesters within it.

**Calendar Year**

This is marked by the months January through December.

**Grade Point Average (GPA)**

A grade point average is calculated by assigning the following numerical weight to each letter grade:

- \( A = 4 \)
- \( B = 3 \)
- \( C = 2 \)
- \( D = 1 \)

\( F = 0 \)

When courses are repeated for credit, previous grades for the same courses are excluded from GPA calculations, whether or not they were failing, and whether or not they were better than the grade ultimately earned.

**Term GPA**

This is the GPA calculated for coursework taken within one semester or, as is the case for the Dental School (students seeking a DDS) and School of Medicine (students seeking an MD), within one academic year.

**Cumulative GPA**

This is the overall GPA calculated across a student’s education within a career (e.g. certificate, undergraduate, Master’s doctoral or professional career).

**UNIVERSITY PROCEDURES**

A. The grade and credit earned for any course taken by a student at UT Health Science Center will become part of the student’s permanent record and will be used in the computation of the University grade point average (GPA).

B. Program GPA will be reflected on the transcript as part of the program completion information

C. Cumulative Grade Point Average is used for graduation certification

D. Degrees cannot be conferred with any incomplete grade of “I,” “IP,” “X” or no grade on the student’s records. Incomplete grades or In progress grades are not included in the cumulative GPA until the correct grade has been entered.

D. When a course is repeated, the last grade earned will be counted for grade point average calculations unless the course is designated as repeatable for credit.

B. Term Grade Point Average (TGPA) is derived by multiplying the credit hours of each attempted course by the quality-point value of the grade earned for that course, adding those amounts, then dividing by the total number of credit hours attempted for each term. All grade point averages are carried to two decimal points and rounded to the nearest one hundredth of a point. The grade point average may range from 0.00 to 4.00.

**Example Student Transcript**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit Hours</th>
<th>Grade</th>
<th>Grade Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biology</td>
<td>3</td>
<td>A (4 points)</td>
<td>12</td>
</tr>
<tr>
<td>Research</td>
<td>1</td>
<td>B (3 points)</td>
<td>3</td>
</tr>
<tr>
<td>Clinical Skills</td>
<td>3</td>
<td>C (2 points)</td>
<td>6</td>
</tr>
<tr>
<td>Ethics</td>
<td>3</td>
<td>F (0 points)</td>
<td>0</td>
</tr>
</tbody>
</table>

10 Total Credit Hours Attempted | 21 Total Grade Points

To calculate the example student’s GPA, the total grade points (21) are divided by the total credit hours attempted (10) = 2.10.
GPAs

Student GPAs appear on unofficial and official transcripts and advisement reports. A transcript shows separate GPAs for each “career” a student was or is enrolled in. These careers include the following:

- Advanced Dental Education Post-professional
- Dental School Graduate
- Dental School Professional
- Dental School Undergraduate
- Graduate School of Biomedical Sciences Graduate
- Health Professions Graduate
- Health Professions Undergraduate
- School of Medicine Graduate
- School of Medicine Professional
- School of Nursing Graduate
- School of Nursing Undergraduate

The cumulative University GPA for an undergraduate includes all work undertaken at the University for which a letter grade is recorded, provided letter grades were appropriate and designated. Courses in which grades associated with other than A, B, C, D, and F are recorded are not included in GPA calculation. Any credit hours transferred from another institution are included only for nursing school students. Credit earned by examination, correspondence, or extension is not included in calculation of a student’s GPA.

Both Term and Cumulative GPAs appear in designated areas on students’ transcripts. Students and/or alumni can obtain GPAs in one of two ways:

1. Current students may obtain GPAs by accessing their unofficial transcripts through The Portal (http://inside.uthscsa.edu) online.
2. Current students and alumni may request official transcripts to review this information. A $10 fee is assessed per transcript.

Requests for current and former students grades and term or cumulative GPAs will not be honored over the phone, nor by email. Students must access these through the Student Center (http://inside.uthscsa.edu) and the unofficial transcripts available there.

Ranks

Ranks are generated yearly and following remediation of failed grades for the following schools only:

1. Dental School
2. School of Medicine

Ranks are utilized for the purpose of applying to post-doctoral residency programs and, in some cases, receiving honors and scholarships. Please see the specific school sections in this Catalog for more information.

Requests for ranks will not be honored over the phone. Former and current students must submit a written request with the name on record at the HSC, last term attended and month and day of birth date by letter or email generated from their Livemail email accounts to registrars@uthscsa.edu. Requests will be honored within five business days.

Grievances

UNIVERSITY DECISION

The University of Texas Health Science Center at San Antonio (HSC) provides the opportunity for students to file a grievance for academic and non-academic type complaints. Both academic and non-academic grievance processes are managed by the Dean of the school in which the student is enrolled.

PERTINENT INFORMATION

The student grievance policy is based on authority delegated by the Board of Regents of The University of Texas System, and the Texas Higher Education Coordinating Board. Grievance policies for academic and non-academic matters are administered by each school. The student appeal process for academic and non-academic matters resides in the school of student enrollment. The Dean of the school in which the student is enrolled has the responsibility to hear final appeals and to make the final decision.

DEFINITION OF TERMS

For purposes of this policy the terms Complaint and Grievance may be used synonymously.

The Executive Director, Academic, Faculty, and Student Ombudsperson and ADA Compliance is the designated ombudsperson and can provide unofficial, confidential consultation about a student’s rights, responsibilities, and options.

The Assistant or Associate Dean is the position that oversees student affairs in each school.

An Informal Grievance allows a student to pursue a resolution on an unofficial basis with the guidance of his/her Assistant or Associate Dean.

The Formal Grievance procedure is intended to provide a student with an opportunity to formally grieve any perceived act, omission, or issue of a nonacademic nature which adversely affects a student.

An Academic Grievance is a complaint regarding an academic decision or action that affects a student’s academic record.

A student may file a Non-Academic Grievance against another student, faculty or staff of the Health Science Center concerning the interpretation, application, or claimed violation of his/her rights.

POLICY

Student Academic Grievance Procedures

Each school at the Health Science Center has a defined academic and non-academic grievance policy to meet the needs of its students. Please refer to the school specific section information:

- School of Nursing: nursing.uthscsa.edu
- School of Medicine: som.uthscsa.edu
- School of Health Professions: uthscsa.edu/shp
- Dental School: dental.uthscsa.edu
- Graduate School Biomedical Sciences: uthscsa.edu/gsbs

Students enrolled in online courses should consult the Distant Learning Education Student Complaint Process (http://studentservices.uthscsa.edu/pdf/Catalog2011-2012.pdf#page=104) section.
Student Nonacademic Grievance Procedure

A student filing a grievance should provide the following information: relevant names, locations, dates, witnesses and description of the incident(s) that occurred. If the accused individual is a Health Science Center employee, the employee’s immediate supervisor receives the written grievance.

Procedure for Grievance

- A grievance, formal or informal, must be filed with the school of enrollment, within 10 business days of the alleged incident.
- If an informal grievance is not resolved, the student has an additional five business days to file a formal written grievance.
- In both a formal and informal grievance process, the pertinent school’s assistant or associate dean has 30 days to investigate, research, and attempt to resolve the issue.
- If the student is not satisfied with the results of the investigation, an appeal to the dean of her/his school within five business days after official notice is given.
- The Dean has an additional seven business days to make a decision. The decision of the Dean is final for the institution.
- The Vice President of Academic, Faculty, and Student Affairs will only hear appeals based on procedural violations.
- In certain circumstances The Texas Higher Education Coordinating Board (THECB) will investigate student complaints. Please see the THECB section below for more information.

Americans with Disabilities Act

In accordance with Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act of 1990 (http://www.ada.gov/ada_intro.htm) (ADA), the grievance procedures described in this document should be followed for complaints alleging discrimination on the basis of disability.

No qualified student shall, on the basis of disability, be excluded from participation in, be denied the benefits of, or otherwise be subjected to discrimination under any academic program or activity at the Health Science Center. If a student feels he/she has been subject to discrimination a complaint should be filed with the Executive Director, Academic, Faculty, and Student Ombudsman and ADA Compliance.

Sexual Misconduct and Civil Rights Violations

Complaints alleging sexual assault and/or sexual harassment should be addressed in accordance with the policies and procedures set forth in the Handbook of Operating Procedures Section 4.2.2. For all other Title VII complaints refer to the Handbook of Operating Procedures Section 4.2.1: “Nondiscrimination Policy and Complaint Procedure (http://www.uthscsa.edu/hop2000/4.2.2.pdf).”

The Texas Higher Education Coordinating Board

If a student exhausts the Health Science Center grievance process, a complaint may be filed to The Texas Higher Education Coordinating Board. More information on the types of complaints it investigates, processes, and the complaint form can be accessed on its website (http://www.thecb.state.tx.us/index.cfm?objectid=051F93F5-03D4-9CCE-40FA9F46F2CD3C9D).

Scholastic Honors Policy

UNIVERSITY POLICY

It is the policy of The University of Texas Health Science Center San Antonio (UTHSCSA) to recognize the academic achievement of students with scholastic honors and distinctions awarded at the end of each term and at graduation.

PERTINENT INFORMATION

The UTHSCSA is committed to higher education in the State of Texas and recognizes the academic achievement of students each term and at that time of graduation by designating honors and distinctions based on their GPAs, coursework, or programs. To be eligible to graduate with any University honors or distinctions, students must have completed at least 30 semester credit hours at The UTHSCSA.

Graduation with University honors is based on the average of all grades earned in courses taken in residence at the University, whether the courses were passed, failed, or repeated. All courses regardless of grading basis are counted in the 30 hour minimum, but only letter-graded courses are used to determine the grade point average. Certificate and non-degree seeking students are not eligible for graduation scholastic honors.

Graduation with distinction is based on the successful completion of specified coursework, often with minimum grades, as determined by the school offering such distinctions. To qualify for consideration, students must have completed at least 30 semester credit hours, or two full academic years, at The UTHSCSA.

DEFINITION OF TERMS

Dean’s List

The Dental School, The School of Health Professions and The School of Nursing recognize students who meet a minimum GPA as qualifying for the Dean’s List each semester, including the term of graduation. Qualifying GPAs can be found under each school’s respective Catalog section.

Distinction

Some schools recognize students’ commitment to and excellence in a specific area of study within their program by recommending they graduate with distinction in a given area.

GPA

An acronym for grade point average, it represents an average of the numerical weight assigned to letter grades earned in credit-bearing classes graded on a letter basis (i.e. A, B, C, D and/or F). For more information, please see the Student Grade Point Average Policy.

In Residence

This term refers to a student establishing academic residence at the university by completing a minimum number of semester credit hours that qualifies them for honors and distinctions.

Latin Honors

These include Cum Laude, Magna Cum Laude and Summa Cum Laude, each of which are described further under University Procedures below.
UNIVERSITY PROCEDURES

Scholastic Honors by Term

Students at the end of term who earn GPAs of 3.9 or higher are recognized as qualifying for the Dean’s List. Students may earn this honor multiple times for each semester in which they are registered in credit-bearing classes graded on a letter basis (i.e. A, B, C, D and/or F).

Dean’s List recognition is noted under the appropriate grading term on the official transcript. The recognition may also appear on the official Commencement Program for graduating undergraduate, graduate, and professional-level students.

Scholastic Honors at Graduation

Graduating undergraduate students who earn particular GPAs at the end of their respective programs shall be recognized with Latin honors based on specific GPA ranges. These designations only apply to undergraduate students. GPA ranges and the Latin honors applicable to them are as follows:

- Cumulative GPA 3.5 – 3.69: Cum Laude
- Cumulative GPA 3.7 – 3.89: Magna Cum Laude
- Cumulative GPA 3.9 – 4.00: Summa Cum Laude

Latin honors are noted on diplomas and official transcripts.

Graduate or professional students do not receive Latin honors designations. Other school-specific honors may be noted on their transcript based on the schools’ policies. Graduate-level students within the School of Nursing are awarded high honors with a cumulative GPA of 4.0.

Students in some schools may recognize students’ commitment to and excellence in a specific area of study within their program by recommending graduation with distinction. Examples include distinction in research and distinction in teaching. These are noted on their official transcripts, but not on their diplomas. More information on each school’s policies can be located under their respective, school-specific policies.

Schools may choose to denote distinctions and honors awarded on the official Commencement Program published each May.

Student Notification of Honors

The school’s associate dean for student affairs or other designated official carries the responsibility for obtaining confirmation of honors and appraising students accordingly. The deans’ offices manage achievement of distinctions within their own schools. Students shall be notified in a timely manner whenever they have achieved honors or distinction at the end of a term or upon graduation.

Student Absences

UNIVERSITY DECISION

It is the policy of The University of Texas Health Science Center at San Antonio to grant an excused absence from class attendance to a student for the observance of a religious holy day when all procedures for making the request for an excused absence have been met by the student. Failure to comply with all assignments scheduled during the time of absence shall be subject to rules for grading of the program, course and instructor. The grading policy (p. 49) in this Catalog provides additional information.

PERTINENT INFORMATION

The implementation of this policy and procedure is in compliance with Senate Bill 738, codified in Section 51.911 of the Texas Education Code, which states, “…a student who is excused under this section may not be penalized for the absence, but the instructor may appropriately respond if the student fails to satisfactorily complete the assignment or examination.”

DEFINITION OF TERMS

Religious Holy Day

This is a day observed by a religion whose place of worship is exempt from property taxation.

GENERAL RULES AND REGULATIONS

Absences for Religious Holidays

Absences for religious holidays must be formally approved by the appropriate course instructor(s) in advance of the actual holiday. The form is included on the website of The Office of the Registrar. Schools may prescribe specific deadlines available under their school policies in this Catalog.

Military Absences and Leaves of Absence

Under certain circumstances, a student who is required to participate in active military services is excused from scheduled classes or other required activities and will be allowed to complete an assignment or exam within a reasonable time after the absence. The excused absence is permitted only if the student will not miss more than 25% of the total number of class meetings or the contact hour equivalent (not including the final examination period) for the specific course or courses in which the student is enrolled at the beginning of the period of active military service.

Students expected to be absent from classes for active duty must obtain approval from their respective associate dean in order to take a Leave of Absence. All related procedures, including completion of a Student Clearance Form, must be followed. More information is available under the Leave of Absence Policy (http://catalog.uthscsa.edu/generalinformation/academicpolicies/leaveofabsencepolicy) in this Catalog.

UNIVERSITY PROCEDURES

Absences for Religious Holidays

1. Students may take an examination or complete an assignment missed during the observance of a religious holy day(e) if they give notification of the planned absence to the instructor(s).

2. The student shall request the excused absence immediately following registration/enrollment or within the first fifteen days of the term.

3. A student shall notify the instructor by completing the official form (Notification of Planned Absence To Observe a Religious Holy Day) available from The Office of the Registrar.

4. The Notification of Planned Absence to Observe a Religious Holy Day form is initiated by the student and signed and dated by the instructor.
5. Instructors, upon notification, will stipulate a “reasonable time” in which the student may complete an assignment or take an examination scheduled on the day(s) the student is absent for the purpose of observing a religious holy day.

6. If the student fails to satisfactorily complete assignments or examinations within the stipulated “reasonable time,” loss of credit for work or a failing grade for an examination will result.

Military Absences and Leaves

1. Students should provide a copy of their orders to report for active duty to their respective associate dean as soon as possible upon receipt.

2. The Student Clearance Form is obtained by the student and signed by the associate dean and circulated to the departments identified within the form.

3. Students absent from classes for active duty have up to two years from the last term of enrollment to return and complete outstanding coursework to resolve the Incomplete (I) grade.

4. The Incomplete initially awarded will be converted to a ‘W’ for withdrawal.

5. Students who fail to return from a military leave of absence within two calendar years will have their statuses converted to indicate “Discontinued; Did not return,” and all incomplete grades will be converted to withdrawal grades (“W”).

6. Students who do not return within the specified time frame must re-apply for admission to the program. If admitted, they must re-register for the course and pay any associated tuition and fees again.

For more information on leaves of absences, see the Leave of Absence Policy (http://catalog.uthscsa.edu/generalinformation/academicpolicies/leaveofabsencelpolicy) in this Catalog.

Policy on Awarding Academic Credit, Transfers and Substitutions

UNIVERSITY DECISION

It is the University’s decision to only accept transfer coursework from regionally accredited institutions. Other transfer coursework such as life experience, extra-institutional learning, ACT test scores, CLEP test scores, GED test scores, technical training, vocational training and military schools may be evaluated on a case by case basis, however under customary circumstances credit will not be awarded.

PERTINENT INFORMATION

The intention of this policy is to maintain best practices in applying transfer credits and to ensure the academic integrity of UT Health Science Center academic programs.

Senate Bill 111 from the 79th Regular Session of the Texas Legislature (TEC 51.968) requires all Texas public colleges and universities adopt a policy regarding the awarding of academic credit to entering students who have completed a “post secondary level program” while still in high school. Those programs include Advanced Placement (AP) courses, College Level Examination Program (CLEP), and the International Baccalaureate Diploma (IBD). House Bills 133 and 1170 (TEC 51.3041) require all institutions of higher education to award course credit toward a degree for students’ completion of certain military training.

In the “Principles and Philosophy of Accreditation,” under the Standards for All Educational Programs, The Southern Association of Colleges and Schools (SACS) requires that the institution has a defined and published policy for evaluating, a warding, and accepting credit for transfer, experiential learning, advanced placement, and professional certificates.

The SACS standards also include a requirement that “the institution awards academic credit for course work taken on a noncredit basis only when there is documentation that the noncredit course work is attested to a designated credit experience.” This SACS standard is addressed in the “Credit Award for Non-Traditional Assessments and Training” section of the accreditation guidelines.

DEFINITION OF TERMS

Residence for Academic Credit

Before earning credit without sitting for courses at the HSC, students must establish residency for academic credit. Establishment of academic residency for credit is done by registering for and completing 25% of all baccalaureate coursework at the institution that will award the certificate or degree. Credits previously taken under another program at the HSC may be applied to the academic residency requirement.

Substitutions

Students may request to substitute course requirements with another credit course that is equivalent in content and semester credit units/hours. A substituted course must be another credit course at the HSC, or it can be transferred in from another regionally accredited academic institution.

Transfer Credit

Students may request transfer in credit from another institution regardless of its regional accreditation status. Such requests are submitted in writing for evaluation by the Office of the Registrar. Students should be prepared to obtain and provide supporting documentation for previous coursework, including course descriptions and syllabi. Students should further note that there are limits to the number of semester credit hours that may be transferred in according to academic residence requirements set forth by SACS.

Waivers

Students who possess a license or credential in a particular subject area or professional field may request to have a professional certificate course requirement waived. When a course is waived, the semester units/hours of the waived course must be made up by taking another credit course equivalent to the same number of credit hours waived. When requesting a course waiver, students must provide the department with all requested documentation from their relevant credential(s) or license.

UNIVERSITY PROCEDURE

In addition to sitting for official classes, regardless of method of instruction, students may earn academic credit through the following:

- Transfer of credit
- Course substitutions
• College Level Examination Program (CLEP) subject exams
• Advanced Placement (AP) exams
• Credit for military training
• International Baccalaureate Degree
• Experiential learning

For all degrees awarded, and in accordance with accreditation guidelines under the Southern Association of College and Schools (SACS), students must take a minimum of 25% of their baccalaureate coursework at the HSC to receive a degree from the institution. The minimum applies to all baccalaureate coursework including courses taken the first two years of college. For example, a degree that requires a total of 120 semester credit hours calls for 30 semester credit hours to be earned via official coursework at the HSC, versus alternate methods of earning credit at the HSC including those listed above.

GENERAL RULES AND REGULATIONS

1. Official transcripts will be evaluated only after all necessary evaluation documents are on file at the Office of the Registrar.

2. All official documents submitted to the Office of the Registrar become property of the University and will not be returned or copied for the applicant.

3. Any accepted applicant seeking credit at the University through any means must have met all admissions requirements including, but not limited to, assessment scores, minimum GPAs, submission of previous transcripts, pre-requisites, and the Texas Core curriculum.

4. The total number of semester credit hours awarded for credit may vary depending upon the student’s program of study; however, the total credit awarded (including transfer credits) cannot exceed 75% of the total credits required for the student’s declared program of study. At least 25% of the total credits in a student’s degree plan must be earned through regular semester credit hour (SCH) instruction at UT Health Science Center.

5. While credit may be awarded by the HSC for external exams and training, this credit may not satisfy requirements for a specific program of study. Students should check with their department to determine if accepted credit will meet program requirements.

6. Credit granted will be reflected on the student’s official transcript either in bulk or associated with a specific course number from the H.

7. A grade of CR (credit) will be assigned for any course in which Credit is received. This grade is not computed in the grade point average, and the credit does not count toward calculation of student statistics for that term, including GPA.

8. The student is responsible for obtaining documentation of external exam scores and/or other training and submitting it to the Department or the Office of the Registrar at UT Health Science Center. Scores for the College Level Examination Program (CLEP) and Advanced Placement (AP) examinations, as well as other transfer, substitution and waiver documentation, should be received prior to enrollment.

9. Students must complete the Course Substitution Request Form for UTHSCSA Courses with appropriate documentation to initiate the consideration of their request at the department level. This form must be signed by the appropriate Associate Dean. Credit based on exam or test scores require the Credit by Exam form with no additional approval other than the Department and the Registrar certifying that the score reports have been received and validated. The Transfer Credit Form will need to be completed for credit awarded from an external institution or internal transfer credit.

10. Students are notified in a timely manner by their academic department and/or dean’s office of the disposition of their requests for course waiver/substitutions.

11. Students who are denied Credit may appeal to the appropriate university administrator through the university’s published appeal process. Also see the section below on “Transfer of Credit” for more information on the resolution of transfer credit disputes for lower-division courses.

12. Credit by local examination satisfies degree requirements in the same way as credit earned by passing a course. Credit earned by examination does not jeopardize eligibility for scholarships that require a certain class standing (e.g. Junior class).

TRANSFER OF CREDIT

Transfer students must submit official transcripts from all previously attended institutions, regardless of whether or not transfer credit is assigned or desired as a condition of admission;

1. The student’s transfer course work is identified as a bona fide college-level course and must have been earned at an institution that can ascertain the course content and learning outcomes, correspond with current HSC courses required in the student’s program of study, and have been assigned a grade of “C” or better from the originating institution. In accordance with SACS accreditation requirements, no more than seventy-five percent of the total credit hours of the required course work may be applied from transfer credit.

2. Transfer of Courses from Texas Institutions: When possible, the Office of the Registrar will use the Texas Common Course Numbering System (TCCNS) to perform transfer of credit for courses offered by regionally accredited state institutions.

3. Transfer of Courses from Non-Texas Institutions: Degree or Certificate-seeking students will request transfer of credit from any out-of-state regionally accredited institutions by providing their department official transcript(s) containing the courses to be evaluated.

A. Transfer credit will be awarded on a semester credit hour scale in all instances, including courses transferred in on quarter-hour scales. Credit transferred in on quarter-hour scales will be converted to semester credit hours proportionately.

B. Adequate documentation must be provided for consideration of the request. This may include syllabi, catalog course descriptions, or any other documentation deemed appropriate by the department and/or Registrar.

C. Transfer and/or substitution course work is reviewed and submitted for processing before the end of the student’s first term of enrollment (or the first semester after an eligible transfer course has been completed).

D. Although no specific limit is placed upon the number of transfer/substitution credits that may be accepted, all transfer students must complete the required minimum of 30 semester hours, or 25 percent of total hours, whichever is greater. The
transfer process must be completed before students may receive substitution credit for course work completed at another institution.

E. Academic courses may substitute only for academic courses.

4. All transferred courses will be posted on the student’s official transcript with grades of “TR” but will not be calculated in the student’s grade point average.


A. If an institution of higher education does not accept course credit earned by a student at another institution of higher education, the receiving institution shall give written notice to the student and to the sending institution that transfer of the course credit is denied, and shall include in that notice the reasons for denying the credit. Attached to the written notice shall be the procedures for resolution of transfer disputes for lower-division courses as outlined in this section, accompanied by clear instructions outlining the procedure for appealing the decision to the Commissioner of Higher Education.

B. A student who receives notice as specified in paragraph (a) of this subsection may dispute the denial of credit by contacting a designated official at either the sending or the receiving institution.

C. The two institutions and the student shall attempt to resolve the transfer of the course credit in accordance with Board rules and guidelines.

D. If the transfer dispute is not resolved to the satisfaction of the student or the sending institution within 45 days after the date the student received written notice of denial, the sending institution may notify the Commissioner in writing of the request for transfer dispute resolution, and the institution that denies the course credit for transfer shall notify the Commissioner in writing of its denial and the reasons for the denial.

5. Waivers:

   Students who possess a license or credential in a particular subject area or professional field may request to have a professional certificate course requirement waived. When a course is waived, the semester units/hours of the waived course must be made up by taking another credit course. When requesting a course waiver, students must provide the program director with documentation of their relevant credential or license, and any other documentation deemed appropriate.

6. Course Substitution:

   Students may request to substitute a course requirement in a program at the HSC with another credit course that is equivalent in content and credit semester units/hours. A substituted course must be another credit course at the Health Science Center, or the outside course credit can be transferred in from another regionally accredited academic institution (see Transfer Credit below).

WAIVERS/ SUBSTITUTION

1. Student requesting course waivers or course substitution will submit a Course Waiver/Substitution Request Form to the appropriate department.

2. After evaluating the Request for a Waiver or Course Substitution, the student’s department will submit the completed Course Waiver/Substitution Request form to the Office of the Registrar for processing.

3. Upon receipt of the Course Waiver/Substitution Request Form from the department, The Office of the Registrar determines that the student has an official transcript containing the respective substitution course(s) on file and enters the course(s) and grade(s) for credit of “CR” into the degree audit system and student’s official transcript.

4. Waived courses and/or Course Substitutions will appear on the student’s degree audit report. Course waivers and/or Course Substitutions are not counted in cumulative credits and are not used in the calculation of student’s GPA.

   WAIVERS/ SUBSTITUTION

<table>
<thead>
<tr>
<th>Prerequisite Course</th>
<th>CLEP Examination</th>
<th>Minimum Score</th>
<th>Maximum Credit Granted</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accounting</td>
<td>Principles of Accounting</td>
<td>50</td>
<td>3</td>
</tr>
<tr>
<td>Chemistry (Lecture)</td>
<td>Chemistry</td>
<td>50</td>
<td>3</td>
</tr>
<tr>
<td>College Algebra, or Higher</td>
<td>College Algebra</td>
<td>50</td>
<td>3</td>
</tr>
<tr>
<td>Calculus</td>
<td></td>
<td>50</td>
<td>3</td>
</tr>
<tr>
<td>Trigonometry</td>
<td></td>
<td>50</td>
<td>3</td>
</tr>
<tr>
<td>Pre-Calculus</td>
<td></td>
<td>50</td>
<td>3</td>
</tr>
<tr>
<td>Computer Literacy</td>
<td>Information</td>
<td>50</td>
<td>3</td>
</tr>
<tr>
<td>Psychology</td>
<td>Human Growth and Development</td>
<td>50</td>
<td>3</td>
</tr>
<tr>
<td>Economics</td>
<td>Principles of Macroeconomics</td>
<td>50</td>
<td>3</td>
</tr>
</tbody>
</table>

   The University of Texas Health Science Center at San Antonio

   WAIVERS/ SUBSTITUTION

<table>
<thead>
<tr>
<th>Prerequisite Course</th>
<th>CLEP Examination</th>
<th>Minimum Score</th>
<th>Maximum Credit Granted</th>
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</thead>
<tbody>
<tr>
<td>Accounting</td>
<td>Principles of Accounting</td>
<td>50</td>
<td>3</td>
</tr>
<tr>
<td>Chemistry (Lecture)</td>
<td>Chemistry</td>
<td>50</td>
<td>3</td>
</tr>
<tr>
<td>College Algebra, or Higher</td>
<td>College Algebra</td>
<td>50</td>
<td>3</td>
</tr>
<tr>
<td>Calculus</td>
<td></td>
<td>50</td>
<td>3</td>
</tr>
<tr>
<td>Trigonometry</td>
<td></td>
<td>50</td>
<td>3</td>
</tr>
<tr>
<td>Pre-Calculus</td>
<td></td>
<td>50</td>
<td>3</td>
</tr>
<tr>
<td>Computer Literacy</td>
<td>Information</td>
<td>50</td>
<td>3</td>
</tr>
<tr>
<td>Psychology</td>
<td>Human Growth and Development</td>
<td>50</td>
<td>3</td>
</tr>
<tr>
<td>Economics</td>
<td>Principles of Macroeconomics</td>
<td>50</td>
<td>3</td>
</tr>
</tbody>
</table>

   CLEP SUBJECT EXAMS

   The College Level Examination Program (CLEP) is a series of tests offered by The College Board. The tests cover a variety of subject areas including business, science and mathematics, history and social sciences, foreign languages, and composition and literature. CLEP exams are offered on most college and university campuses; however the HSC does not offer it. The HSC awards course credit for CLEP Subject Exams provided the minimum score has been obtained on the specific test and the department has approved it. CLEP Scores are valid for ten (10) years from the test date.

   Students who wish to earn HSC course credit for a CLEP Subject Examination must comply with the following requirements in addition to the policy under General Rules and Regulations for Credit Awards:

   1. Student must submit official CLEP test scores to The Office of the Registrar prior to enrollment for use in academic advising and degree auditing, and no later than the last class day of the first term of enrollment at the HSC. Official scores include scores sent directly by The College Board as well as official score reports received by the student.

   2. CLEP credit will not be awarded for courses previously attempted, regardless of grade originally earned.
Advanced Placement (AP) exams are offered by the College Board to students who complete AP courses while enrolled in high school. The exams cover a variety of subject areas including business, science and mathematics, history and social sciences, foreign languages, and composition and literature. The HSC awards course credit for AP Exams providing the minimum score has been obtained on the specific test and it has been approved by the program. AP scores are valid ten years from the test date.

Students who wish to earn HSC course credit for an Advance Placement Examination must comply with the following requirement in addition to the General Rules and regulations for Credit Awards:

1. Submit official AP test scores to the Office of the Registrar, preferably prior to enrollment for use in academic advising and degree auditing.

<table>
<thead>
<tr>
<th>Core Curriculum Course</th>
<th>AP Test Name</th>
<th>Minimum Score</th>
<th>Maximum Credit Granted</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARTS 1303</td>
<td>Art, History of</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>ARTS 1303, 1304</td>
<td>Art, History of</td>
<td>4</td>
<td>6</td>
</tr>
<tr>
<td>BIOL 1406</td>
<td>Biology</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>BIOL 1406, 1407</td>
<td>Biology</td>
<td>4</td>
<td>8</td>
</tr>
<tr>
<td>CHEM 1411</td>
<td>Chemistry</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>CHEM 1411, 1412</td>
<td>Chemistry</td>
<td>4</td>
<td>8</td>
</tr>
</tbody>
</table>

CREDIT FOR MILITARY TRAINING

The HSC employs the American Council on Education’s Guide to the Evaluation of Educational Experiences in the Armed Services to assess potential transferability of Military Occupational Specialties (MOS). Specific degree applicability is at the discretion of the Dean’s Office over the student’s program.

Transfer credit is not awarded for the following:

- “Lower-division baccalaureate/associate degree category” ACE recommendations.
- “Vocational certificate category” ACE recommendations.
- Basic military training. Some institutions recognize basic training, usually in fulfillment of physical education requirements, but The University of Texas Health Science Center at San Antonio does not offer physical education.

Transfer credit is awarded for courses under the “upper-division baccalaureate category” in the ACE Guide.

Acceptable forms of documentation include the following:

- AARTS (http://aarts.army.mil) Transcript (Army ACE Registry Transcript)
• SMART (https://smart.navy.mil) Transcript (Sailor/Marine ACE Registry Transcript)
• Form DD-214 (Report of Separation)
• Form DD-295 (Application for the Evaluation of Learning Experience During Military Service)

To be considered official, any of the credentials above (except form DD-214) must be sent to The University of Texas Health Science Center at San Antonio directly from the issuing agency. Students/applicants may submit an original DD-214; a certified copy will be made for office use and the original returned.

Students should be advised that, unlike college or high school transcripts, submission of military credentials for potential transfer credit is optional and is neither required for undergraduate admission nor subject to admission deadlines. However, any credit awarded may be applied during the student’s first semester of coursework; therefore official documents should be provided as early as possible.

### DANTES Minimum Score Requirements

<table>
<thead>
<tr>
<th>Core Curriculum Course</th>
<th>DANTES Examination</th>
<th>Minimum Score</th>
<th>Maximum Credit Granted</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accounting / Principles of Accounting</td>
<td>Principles of Accounting</td>
<td>47</td>
<td>3</td>
</tr>
<tr>
<td>Business Law</td>
<td>Business Law II</td>
<td>44</td>
<td>3</td>
</tr>
<tr>
<td>College Algebra, or higher</td>
<td>Fundamentals of College Algebra</td>
<td>47</td>
<td>3</td>
</tr>
<tr>
<td>Communication</td>
<td>Technical Writing</td>
<td>46</td>
<td>3</td>
</tr>
<tr>
<td>Computer Literacy</td>
<td>Introduction to Computing</td>
<td>45</td>
<td>3</td>
</tr>
<tr>
<td>Management Information Systems</td>
<td>Management Information Systems</td>
<td>46</td>
<td>3</td>
</tr>
<tr>
<td>Lifespan Developmental Psychology</td>
<td>Lifespan Developmental Psychology</td>
<td>46</td>
<td>3</td>
</tr>
<tr>
<td>Electives</td>
<td>Note: Many DANTES examinations may satisfy credits for electives.</td>
<td>Varies</td>
<td></td>
</tr>
<tr>
<td>Humanities &amp; Visual and Performing Arts</td>
<td>Art of the Western World</td>
<td>48</td>
<td>3</td>
</tr>
<tr>
<td>Human/Cultural Geography</td>
<td>Human/Cultural Geography</td>
<td>48</td>
<td>3</td>
</tr>
<tr>
<td>Ethics in America</td>
<td>Ethics in America</td>
<td>46</td>
<td>3</td>
</tr>
<tr>
<td>Introduction to World Religions</td>
<td>Introduction to World Religions</td>
<td>48</td>
<td>3</td>
</tr>
<tr>
<td>Introduction to Business</td>
<td>Introduction to Business</td>
<td>46</td>
<td>3</td>
</tr>
<tr>
<td>Management Science</td>
<td>Human Resource Management</td>
<td>46</td>
<td>3</td>
</tr>
<tr>
<td>Principles of Supervision</td>
<td>Principles of Supervision</td>
<td>46</td>
<td>3</td>
</tr>
</tbody>
</table>

1 Minimum scores are based on American Council on Education (ACE) recommendations.
2 Three semester credit hours per DANTES (http://www.dantes.doded.mil/Dantes_web/DANTESHOME.asp) examination may be awarded.
3 Many DANTES examinations may satisfy credits for electives. Each program that includes electives in program prerequisites will designate which DANTES examinations may or may not be used for elective credit and maximum number of semester credit hours that may be awarded. Minimum scores for awarding elective credit will be determined by the application of ACE recommendations.

### INTERNATIONAL BACCALAUREATE DEGREE PROGRAM (IBD)

The International Baccalaureate Program is a rigorous pre-university course of study leading to examinations. It is designed for highly motivated secondary school students and incorporates the best elements of national systems without being based on any one alone. The IB exam has received extensive world-wide recognition for the quality and rigor of its programs. IB credits are evaluated a bit differently upon request and with considerations as described here. Only scores achieved for the Higher Level examinations are eligible for transfer credit. Students who achieve a 5, 6, or 7, on an IB exam will receive transfer credit. Scores of 5 or 6 receive 1.0 unit of transfer credit. A student may be awarded 2.0 units for a score of 7 at the discretion of the department. Students must check with the appropriate department as well as the Dean’s Office to determine...
whether 2.0 units is the appropriate evaluation for an IB score of 7. The maximum allowable amount of transfer credit is 3 hours.

Note: Scores will not appear on the transcript for International Baccalaureate credit. Only the department, course title, and units transferred are identified.

### Course Equivalencies for the Various Exams

<table>
<thead>
<tr>
<th>Exam Area</th>
<th>Semester Hours</th>
<th>Minimum Score</th>
<th>UTHSCSA Course Equivalent</th>
</tr>
</thead>
<tbody>
<tr>
<td>English</td>
<td>6</td>
<td>5</td>
<td>ENGL 0001 &amp; 0002</td>
</tr>
<tr>
<td>History Americas</td>
<td>6</td>
<td>5</td>
<td>HIST 0001 &amp; 0002</td>
</tr>
<tr>
<td>Economics</td>
<td>6</td>
<td>5</td>
<td>SSCI 0001</td>
</tr>
<tr>
<td>Psychology</td>
<td>6</td>
<td>5</td>
<td>SSCI 0001</td>
</tr>
<tr>
<td>Philosophy</td>
<td>3</td>
<td>5</td>
<td>HUMA 0001</td>
</tr>
<tr>
<td>Chemistry</td>
<td>8</td>
<td>5</td>
<td>NSCI 0001</td>
</tr>
<tr>
<td>Biology</td>
<td>8</td>
<td>5</td>
<td>NSCI 0002</td>
</tr>
<tr>
<td>Physics</td>
<td>8</td>
<td>5</td>
<td>NSCI 0003</td>
</tr>
<tr>
<td>Mathematics</td>
<td>4</td>
<td>5</td>
<td>MATH 0001</td>
</tr>
<tr>
<td>Visual Arts A</td>
<td>3</td>
<td>5</td>
<td>FINE 0001</td>
</tr>
<tr>
<td>Visual Arts B</td>
<td>3</td>
<td>5</td>
<td>FINE 0001</td>
</tr>
<tr>
<td>Music</td>
<td>3</td>
<td>5</td>
<td>FINE 0001</td>
</tr>
</tbody>
</table>

### CREDIT BY EXAM/CHALLENGE EXAM

HSC Challenge Exams are comprehensive examinations for courses in which proficiency may be determined by examination. These exams are designed and written by qualified faculty and authorized by the department and Dean’s Office. No GPA-weighted credit is awarded on the basis of successful performance on these, but, they allow a student two privileges:

1. The opportunity to enroll in advanced level courses in the area of proficiency.
2. The opportunity of satisfying various college or departmental “area” of or proficiency requirements without taking prescribed courses.

Proficiency or exemption examinations for many courses are available to any student currently enrolled in a degree program at the HSC. A student may be eligible to earn credit for a course at by passing the examination designated and administered by an academic department. Not all departments offer credit by examination, and departments set the passing scores. Students should consult with their Dean’s Office or academic department for more information.

Credit by examination is reported to the Office of the Registrar by the academic department upon request from the student using the Credit by Exam Form. The Office of the Registrar will post the credit earned by examination on the student’s official transcript upon confirmation of payment for the credit to be awarded. Credits earned by examination are not included in the calculation of the student’s grade point average.

### CREDIT FOR EXPERIENTIAL LEARNING

Experiential learning allows students to receive college/university credit for equivalent educational experiences acquired through earlier schooling situations, work-on-the-job training or life experiences. Upon approval of the appropriate department chair and/or director, a student may develop a petition for a course or courses offered by the HSC to gain college-level credit. Petitions are reviewed by the appropriate department chair and/or director and submitted to the Dean’s Office for approval. A petition for semester credit for experiential learning is a document that demonstrates learning and knowledge gained through work and life experiences. The petition must specifically state the skills and knowledge gained that is equivalent to those taught in the course(s). The petition can include knowledge and skills gained from a wide variety of sources including, but not limited to: Full or part-time jobs, independent reading and study, training program or in-service courses, volunteer work, cultural and artistic pursuits, military service and travel study.

The approval process for awarding semester credit for experiential learning will include the following steps in addition to the General Rules and Regulations for Credit Awards:

1. The student submits the Credit by Exam Form along with a formal written petition for credit for experiential learning and supporting documentation to the department. Based on the documentation and evaluation of the credentials, experience and skills listed on the petition for semester credit for experiential learning, the department chair/director may:
   A. Recommend approval of equivalent SCH course credit to the Dean’s Office or
   B. Close the request with no recommendation for approval.

   The department chair/director will notify the student promptly when the request for SCH equivalent course credit is closed with no recommendation for approval. If approved, the department chair/director forwards the Credit by Exam Form and supporting documentation to the Office of the Registrar.

2. The Dean’s Office may:
   A. Recommend approval of equivalent SCH course credit to the Office of the Registrar or
   B. Close the request with no recommendation for approval.

   The Dean’s Office will notify the student promptly when the request for SCH equivalent course credit is closed with no recommendation for approval. If approved, the Credit Award form and supporting documentation is forwarded to the Office of the Registrar.

3. The Office of the Registrar receives the recommendation form with related documentation for processing.

### Registration Policy on Adding/ Dropping Courses

#### UNIVERSITY DECISION

Students may add and drop courses via The Portal (http://inside.uthscsa.edu) using Student Administration during official Web Registration days as designated by The Office of the Registrar (http://students.uthscsa.edu/registrar) in the official academic calendar (http://students.uthscsa.edu/registrar/2013/04/academic-calender) for each term. Under no circumstances are students permitted to add classes to their schedules after the Census Date, unless otherwise dictated by the school’s profession-specific accreditation body. Check the official Academic Calendar for published Census Dates.
PERTINENT INFORMATION

A full or partial refund may be possible for dropped courses contingent on the date of a drop and the official start of the term. See the Refund Schedule (p. 29) in this Catalog for more detailed information.

Students may drop courses at any time during the semester, but before administration of final exams or final lab exercises, if approved by their program director, associate dean, or other designated official. Withdrawal grades may consist of W (Withdrawal), WP (Withdrawed Passing) or WF (Withdrawed Failing). Students should check the Catalog section specific to their respective schools for applicable grades.

Students should also note that dropped courses will count towards the “attempted credit hours” for the purpose of calculating excess hours under Texas Education Code Texas Education Code §54.068 and §61.0595 for undergraduate students, and Texas Education Code §54.012 for doctoral students in the Graduate School of Biomedical Sciences, including Nursing PhD students. See the Excess Hours Policy (http://catalog.uthscsa.edu/generalinformation/generaladmissionsrequirements/excesscredithourspolicy) in this Catalog for more detailed information.

Additional Applicable Legislation:

The Six-Course Drop Limit stems from legislation applicable to all Texas public colleges and universities. This legislation was passed by the Texas Senate (SB 1231) and applies to all students entering into any Texas public institution of higher education as a first-time freshman and thereafter.

A first-time enrolled student with undergraduate status in a Health Science Center (HSC) undergraduate program is precluded from dropping any course if, at the time of enrollment, such undergraduate student has an official transcript(s) indicating that such student has accumulated six documented drops. A documented drop occurs when a) the student was enrolled in a course, b) the student dropped the course without receiving a grade or penalty, and c) the student was not withdrawing completely from the institution. At many institutions, these are referred to as “Q drops,” where “Q” denotes the assigned grade.

Notwithstanding the above, the HSC may permit drop(s) in excess of the six drops for the following reasons:

1. A severe illness or other debilitating condition that affects the student’s ability to satisfactorily complete a course.
2. The student’s responsibility for the care of a sick, injured, or needy person if the provision of care affects the student’s ability to satisfactorily complete a course.
3. The death of a person who:
   • Is considered to be a member of the student’s family; or
   • Is otherwise considered to have a sufficiently close relationship that demonstrates good cause.
4. The active duty service of the student or person considered to be a member of the student’s family and considered a sufficiently close relationship that demonstrates good cause.
5. The change of a student’s work schedule or financial support situation that seriously affects the student’s ability to satisfactorily complete the course.
6. Other good cause as determined by the HSC.

A refund or adjustment of tuition and mandatory fees for dropped courses and student withdrawals shall be governed by Section 54.006 of the Texas Education Code as they relate to Section 51.907 of the Texas Education Code. The change in law made by Section 54.006, as it applies to Section 51.907, applies to tuition and mandatory fees charged with the beginning of Fall 2007.

DEFINITION OF TERMS

Adding
This refers to the process by which students enroll in one or more courses at the HSC, including non-credit courses, courses bearing zero semester credit hours, and enrolling in absentia.

Census Date
The Census Date is determined in accordance with rules set forth by The Texas Higher Education Coordinating Board, including the length of the term in weeks. It is the date by which all registration must be finalized, and tuition and fees paid.

Class
This references a specific instance of a course within a particular term. For example, a course entitled “Introduction to Sciences” may be offered for fifteen weeks in the fall term. This is the class associated with that course.

Course
This refers to a set of meeting components (lectures, labs, clinics, or a combination of several components) that together make up a unit that can be taught during a specified term.

Dropping
This refers to the procedure by which students remove themselves from one or more of the courses in which they are enrolled while continuing in the remainder of their courses. A student who is enrolled in only one course and intends to drop that course must either withdraw from the university or apply for a leave of absence if the student intends to drop the course.

Holds
They are managed by various departments for various restrictions. The owner of the hold may be the only department to release a hold. Certain holds restrict registration which prevent enrollment transactions including but not limited to adding courses.

Term
This refers to the time frame in which a class is taught, and is specific to the school in which it is taught. Terms at the HSC include fall, spring, summer, and academic years (as in, 2010-2011). Schools operate either under traditional semesters (long fall, long spring, short summer) or super semesters (long fall and long spring; no summer term).

UNIVERSITY PROCEDURE

Adding and Dropping
Students have the ability to add or drop courses online using Student Administration via The Portal (http://inside.uthscsa.edu) during the official web registration time period identified in the academic calendar (http://students.uthscsa.edu/registrar/2013/04/academic-calendar).

Any adds or drops approved for processing outside web registration dates must be documented on the Add/Drop Form. All necessary signatures must be obtained in order for the form to be processed in The Office of
the Registrar. Under most circumstances, forms are processed within two business days. Once processed, a copy of the form will be scanned into the student's academic record. It is the student’s responsibility to inquire with the Bursar’s Office regarding any expected refunds, as well as additional tuition owed. Outstanding balances may prohibit additional registration and/or receipt of the diploma.

Under no circumstances may a student ask another individual to register her or him on her or his behalf. This includes peers, faculty, and other support staff. Only students may register for courses; outside designated web registration dates, personnel from The Office of the Registrar may do so.

Census Date and Failure to Pay Tuition and Fees

Absolutely no changes to enrollment will be made after the Census Date. Furthermore, a student who fails to pay tuition and fees by the Census Date or make sufficient payment arrangements with the Bursar’s Office will be permanently dropped from all their courses that semester. Students who are administratively withdrawn from all classes as a result of failure to pay or make suitable payment arrangements with the Bursar’s Office by Census Date will not have any transcriptable record of enrollment for that term.

The student’s tuition and fees will then be recalculated to reflect a balance of zero. During that term, the student does not carry any registration, but may register along with other students for the subsequent semester. The student should meet with an academic advisor or designated associate dean to determine how the curriculum might be rearranged to acquire the number of semester credit hours and specific courses required to attain the degree sought.

Dropping one or more classes (but not all classes) after Census Date result in a grade(s) of W. However, dropping all classes after the first class day result in grades of W for all courses.

Leave of Absence Policy

UNIVERSITY DECISION

The University of Texas Health Science Center at San Antonio (HSC) recognizes that students may find it necessary to request a leave of absence. On the recommendation of the programs, the Dean’s Office may grant up to a year leave of absence at any one time to students in good academic standing.

A Leave of Absence essentially creates a university placeholder which allows the student’s matriculation record to remain active. It will not, however, afford an individual the status of an officially enrolled student. The breaks in enrollment which are formally recognized as leaves of absence fall into one of these categories:

- Leave of absence while in good standing;
- Involuntary Leave of Absence
- In Absentia

Students who decide not to return to the university must formally withdraw from the institution. To do so, students should contact their respective Dean’s Office prior to the end of the first week of the semester the withdrawal is to begin. At the time of withdrawal, students are advised of the conditions under which they might resume their studies in the university should they change their minds at a future date.

PERTINENT INFORMATION

In absentia status provides an opportunity for graduate students to engage in approved study in a location away from the University campus during the academic year while continuing to work under the guidance of the University.

Graduate students whose research or study requires them to remain outside the university for the duration of a full semester can take advantage of in absentia registration. The research or study must be directly related to the student’s degree program and of a nature that makes it necessary to be completed outside of the university. This includes students holding a fellowship, internship, or having a graduate student researcher appointment.

DEFINITION OF TERMS

Leave of Absence

Students who must interrupt the regular academic program may be granted a one-year leave of absence. The leave of absence is approved by the Dean’s Office. While the student is on leave of absence, the student will not have student status which may affect student loan deferment and access to campus facilities and services.

In Absentia

- Graduate and Professional students: In absentia status is a type of registration that allows the students to maintain student status at the university while completing research elsewhere. Registration In Absentia is designated as a zero credit hour and the student is assessed a fee.
- Undergraduates: In absentia is not available as an option for undergraduate students.

UNIVERSITY PROCEDURES

Leave of Absence While in Good Academic Standing

Students in good academic standing will normally receive permission to take a Leave of Absence for up to one academic year.

Involuntary Leave of Absence

A student who fails to register for two or more consecutive semesters and does not elect to take a leave of absence or to enroll In Absentia will be considered for dismissal from the program.

Students may be dismissed, suspended, dropped from the academic rosters, and refused readmission at any time if circumstances of a legal, moral, health, social, or academic nature are considered to justify such action.

In addition to dismissal due to academic deficiencies, questions of scholastic dishonesty and other infractions of the Rules and Regulations of the Board of Regents of the University of Texas System or the procedures and regulations governing Student Conduct and Discipline of the Health Science Center may be grounds for dismissal. Taking a leave of absence without permission, failing to return at the appointed time from a leave
Eligibility Criteria for Enrollment In Absentia

The Graduate Dean is responsible for determining that following criteria has been met:

1. Research or coursework must be directly related to the student’s degree program as evidenced by faculty approval.
2. Research or coursework must be of a nature that makes it necessary to be completed outside of the university for the full academic semester.
3. Doctoral students must be advanced to candidacy by the time the in absentia status would begin.
4. Master’s and graduate professional students must have completed at least one year of coursework by the time the in absentia status would begin.

Applying for Readmission

Students who have exceeded the one year approved leave will be involuntarily withdrawn. Students who have been withdrawn from the university are required to re-apply for admission with the burden of proof for eligibility resting on the student. He or she will be competing for admission against:

1. Students who have formally applied and been granted a bona fide leave of absence by the respective school prior to their absence; and/or
2. All new applicants for admission.

Terms and Conditions of In Absentia Registration

- Financial Support: Students enrolled in absentia are not eligible for university fellowship support, university research grants, and financial aid.
- Academic Appointments and Employment at UTHSCSA: While enrolled in absentia, students are not eligible to hold apprentice or other student appointment titles.
- Graduate Student Researcher Employment: While enrolled in absentia, students are not eligible to hold a Graduate Student Researcher appointment.
- Health Insurance: While enrolled in absentia, students are not covered by student health insurance through the institution.
- Library Privileges: Students enrolled in absentia maintain borrowing privileges at the Library.
- International Students: International students are required to secure OIS approval to enroll in absentia.

Transcript Requirements Policy

UNIVERSITY DECISION

Applicants and students are required to submit official transcripts from all previous colleges and universities attended in accordance with accreditation standards of the Southern Association of Colleges and Schools (http://www.sacscoc.org) (SACS). Any separation from the university that led a student to take coursework at another institution must be documented on an official transcript where coursework was taken. Students who take coursework concurrently at another institution must also provide official transcripts as courses are being completed. Students bear the responsibility for providing these transcripts.

PERTINENT INFORMATION

The Southern Association of Colleges and Schools (SACS) calls for all institutions to assume responsibility for the academic quality of any coursework considered or transferred as part of the admissions process, especially as it pertains to credit for transfer coursework, experiential learning, and advanced placement, among other function. This is done by evaluating all transcripts from institutions previously attended and maintaining a complete academic record. See SACS Principle of Accreditation 3.4.4 for additional information. Official transcripts from previous institutions are also required to comply with Texas legislation including the Six-Drop Limit (Under Section 51.907 of the Texas Education Code) and Excess Hours limits (under Texas Education Code §54.068 and §61.0595, as well as Texas Administrative Code Chapter 13, Subchapter F, §13.102 through §13.108). Also see the Excess Hours Policy (http://catalog.uthscsa.edu/generalinformation/generaladmissionsrequirements/excesscredithourspolicy) for more information.

DEFINITION OF TERMS

Applicant

For the purposes of this policy, an applicant is an individual seeking admission to a program at The University of Texas Health Science Center (HSC) who has not been admitted.

Census Date

The Census Date is determined in accordance with rules set forth by The Texas Higher Education Coordinating Board, including the length of the term in weeks. It is the date by which all registration must be finalized, and tuition and fees paid.

Holds

These are placed on students’ electronic academic records in the student information system. They prohibit enrollment transactions including but not limited to adding courses. Holds are managed by various departments for purposes of collecting critical information at the time of matriculation. Designated personnel in the department responsible for the hold may be the only ones to release a hold.

Matriculation

This is the process by which applicants offered admission to a program become students. It includes processes from the point of accepting an offer of admission, to providing documentation required by various institution offices, to official registration and verification of enrollment after Census Date.

Official Transcript

This is a transcript that reaches The Office of the Registrar in a sealed envelope from the issuing institution, and the enclosed transcript must be printed on the institution’s official transcript paper and bear the institution’s seal and signature from the registrar or another authorized individual designated by the institution’s executive leadership.
Final Transcript

A final transcript reflects all coursework taken at an institution with all courses graded. If a degree was awarded at that institution, the degree is posted.

Student

For the purposes of this policy, a student is an individual who has been admitted to a program at The University of Texas Health Science Center facing matriculation requirements including submission of final, official transcripts.

UNIVERSITY PROCEDURE

Transcripts from United States Institutions

- An official transcript is one that has been officially issued by an institution and received at the HSC in an envelope sealed by the issuing institution. The transcript will contain the official school seal or stamp and the signature of the Registrar.

- Students are required to submit official transcripts from each college or university previously attended or currently attending, regardless of degree sought. Transfer credits indicated on another school’s transcript are not accepted in lieu of submitting the original institution record for that coursework. Copies or other versions available through third-party records or websites are also unacceptable.

- If the issuing institution will not release an official transcript to the student, the student should request that it be sent directly to each proposed department at the HSC to which admission is being sought or offered.

Transcripts from Institutions Outside the United States

An international educational record will be considered complete and official if:

- Each document is an original or a copy that is issued and certified by the university or college. It must contain the original stamp or seal of the institution and the original signature of the appropriate school authority.

- It is a comprehensive record of all study completed, detailing courses studied and the grades (marks) received, in the form of a transcript or yearly grade (mark) sheets.

- It includes all degree/diploma certificates conferred. If the degree is not posted on the transcripts, a separate degree certificate must indicate the type of degree awarded and the date of award. Verification of graduation is required.

- Each document must be submitted in the original language and must be accompanied by a NACES Members (http://www.naces.org/members.htm) evaluation agency English translation.

- Copies of original documents must be certified by the appropriate authority of the issuing university or college. Each page of the copy must contain the original signature and title of the school authority, the date of issuance, and the institutions original stamp or seal.

- Individuals whose foreign university issues only one set of official documents must consult with their respective academic departments directly for alternate methods of submission.

Please be advised that all materials submitted in support of an application become the property of the HSC and will not be returned to the applicant or forwarded to other schools or agencies. Additionally, transcripts will not be copied for applicants or students. For “one of a kind” and difficult to replace documents, we suggest that applicants have the issuing institution(s) certify copies for submission for the application process. This will allow applicants in particular to keep original documents. However, official transcripts will still be required in the event of admission for those incoming students who submitted certified copies of transcripts as part of the application process.

Applicants and students with coursework from foreign institutions where original documents cannot be produced or reproduced must contact the Office of the Registrar (http://students.uthscsa.edu/registrar) directly. The Office of the Registrar will verify transcript issuing constraints at those institutions in those countries in order to offer alternatives to this requirement, including acceptance of notarized copies in lieu of official transcripts. Only applicants and students making formal arrangements with the Office of the Registrar may exercise this option.

Graduation Policy

POLICY

It is the policy of The University of Texas Health Science Center at San Antonio (HSC) that students who satisfy all The University of Texas Health Science Center at San Antonio eligibility criteria and requirements for graduation shall be designated as “graduates.”

PERTINENT INFORMATION

The Southern Association of Colleges and Schools (SACS) has set a standard that at least 25 percent of credit hours applicable to a degree must be earned through instruction offered by the university granting the degree.

Students who satisfy all eligibility criteria and requirements from the HSC may or may not participate in a university sponsored graduation ceremony/reception at their option; nevertheless, their status in the official record of the university is recorded as a “graduate.”

Degrees are conferred and certificates awarded only on official dates publicly announced by the Office of the Registrar. The certificate or degree is awarded by the Board of Regents following the student’s satisfaction of all academic requirements for graduation.

DEFINITION OF TERMS

Regular Instructional Program

Educational program of instruction defined by a curriculum approved by the Texas Higher Education Coordinating Board (THECB) for which term and/or semester hour credits as well as Certificate and/or a degree is awarded.

Curriculum

A list of courses, credits, and other requirements associated with completion of a regular instructional program.
Confer
The presentation of a degree or certificate to a graduate.

Graduate (noun)
Means a person who has qualified for one of the University’s awards and has received the degree or certificate for that award.

Graduate (verb)
Means to attend a graduation ceremony and receive a degree or certificate.

UNIVERSITY PROCEDURE
Application for Graduation
Degrees are not normally awarded automatically upon completion of scholastic requirements. To be considered as candidates for degrees, students must submit a complete the Application for Graduation form to the Office of the Registrar by the appropriate deadline. Graduation application deadlines are:

- July 1 for fall conferral
- November 1 for spring conferral
- April 1 for summer conferral

These dates may vary from term to term; updated deadlines will be communicated by the university by university website and/or via students’ campus e-mail accounts. Students should obtain an official degree audit one semester prior to their expected graduation date to avoid graduation conflicts and delays. Students who graduate with their first bachelor’s degree may be eligible for a tuition rebate, particularly under the Texas B-On Time Loan Program. Contact the Office of Veteran Services and Financial Aid (http://students.uthscsa.edu/financialaid) for additional information.

Operating Requirements
Catalog of Graduation for Degree Programs
Students have three years from their term of original registration to complete a bachelor’s degree program and 6 years to complete a graduate or professional program under the catalog in effect when they initially registered. Students may choose a subsequent catalog under which to complete graduation requirements, provided they have completed at least one course during the academic year the selected catalog was in effect with a letter grade other than W or F and the appropriate dean has approved the amended degree plan. Students must complete all degree requirements under that selected catalog. Choosing a new catalog begins a new three-year or six-year time limit. Students who graduate under one catalog and begin a second degree must begin the new degree under the catalog in effect at that time. Students must have an approved degree plan at the time an application for graduation is filed.

Catalog of Graduation for Courses
Students must meet the course requirements in effect when a course is taken. This prevents students from retaking courses to meet new requirements, yet allows students the opportunity to benefit from new course requirements intended to promote student success. For example, if a student has declared a program of study for the current academic year but has taken courses previously, this student would be held to the course requirements in effect at the time the courses were taken, not the year the program of study was declared.

Eligibility Criteria and Requirements for Graduation
1. The student’s cumulative HSC Grade Point Average must be 2.00 or higher.
2. Students must have no pending disciplinary issues as defined in the university’s catalog.
3. A minimum of 25 percent of the total credit hours of the required coursework must be instruction provided by the school granting the award.
4. Transfer credits accepted by HSC and applied to a HSC degree plan shall be approved by the Office of the Registrar and the program to which the credit would apply. Please refer to the Policy on Awarding Academic Credit (http://catalog.uthscsa.edu/generalinformation/academicpolicies/policyonawardingacademiccredittransfersandsubstitutions) in this Catalog.

Graduation Ceremony Policy
The University conducts a commencement ceremony at the end of the spring semester. Candidates for graduation are not required to attend the graduation ceremony to be considered “graduates.” This is the only sanctioned graduation ceremony by UT Health Science Center at San Antonio. The faculty marshals chosen by the graduating class and approved by the school administration may hood the candidates at the graduation ceremony. No other individuals will be allowed to hood the candidates for graduation. However, current HSC faculty members may petition the Dean of the School to allow them to present the diploma to their daughter/son during the ceremony. Photos and videos are available for purchase through an outside vendor which coordinated by the Office of Student Life.

STUDENT RESPONSIBILITIES
A candidate for the degree must:

- Satisfy all academic requirements for graduation
- Satisfy all indebtedness to the university, including loaned or rental property
- Make formal application for his/her degree to the Office of the Registrar by the specified deadline for that term of graduation
- Be recommended to receive the degree by the faculty, and the certification by the dean of the school and the president of the HSC
- Not have an “F,” “Incomplete” or outstanding grade in any course in any semester
- Pay the graduation fee

Degrees and certificates are provided after final grades have been recorded on the student’s permanent academic record and the student has been conferred as a graduate.

FACULTY RESPONSIBILITIES
Faculty must submit final grades by published deadlines in their respective school’s academic calendar (http://students.uthscsa.edu/registrar/2013/04/academic-calendar). Faculty are responsible for notifying their associate
deans or program chairs if unable to record grades due to an unexpected absence and must have an alternate to record grades.

**OFFICE OF THE REGISTRAR RESPONSIBILITIES**

The Office of the Registrar will review the following requirements for graduation:

- Minimum number of Semester Credit Hours have been completed
- Minimum grade point average has been met
- All final official transcripts have been received, along with any foreign transcript evaluations necessary
- All prerequisites have been completed
- Any transfer credits have been posted to the student’s record
- Any previous degrees earned have been posted to the student’s record
- All HSC grades have been posted

**OFFICE OF STUDENT LIFE’S RESPONSIBILITIES**

The Office of Student Life ([http://students.uthscsa.edu/studentlife](http://students.uthscsa.edu/studentlife)) is responsible for securing a venue for the ceremony, coordinating a rehearsal and hosting the ceremony. They are also responsible for contracting outside vendors for the ceremony for videography and photography.

**UNIVERSITY PRESIDENT RESPONSIBILITIES**

The President is the presiding officer who officiates over graduation ceremonies.

**REPLACEMENT OF DIPLOMAS**

A lost or destroyed diploma can be replaced upon payment of a duplicate diploma fee and completion of the Request for Duplicate Diploma or Certificate ([http://students.uthscsa.edu/registrar/wp-content/uploads/sites/2/2013/08/DuplicateDiploma.pdf](http://students.uthscsa.edu/registrar/wp-content/uploads/sites/2/2013/08/DuplicateDiploma.pdf)) form with the Office of the Registrar. The graduate must complete a Request for Duplicate Diploma form and a statutory declaration. Any other supporting evidence is to be attached to the request.

**REVOCATION OF DEGREES**

The University reserves the right to revoke any degree awarded if it is proven through student disciplinary or other action that the student is guilty of cheating, plagiarism, or other academic dishonesty or fraudulent activity and obtained the degree under false pretenses.

**Academic Program Review Policy**

The academic program review is integral to the assessment and academic planning at The UT Health Science Center San Antonio (HSC). The program review process is intended to examine, assess, and strengthen academic programs offered at the HSC. Program reviews are a means to ensure advancement of the quality of the HSC’s academic programs. The process enables a comprehensive assessment of goals, infrastructure, operations, and outcomes in relation to the mission and strategic plan of the university. The program review process facilitates dialogue among the president, vice president, dean and faculty program leadership. The process provides an organized and structured opportunity for all to reflect on educational practices and review the role of their program in the context of the programs offered by their school and institution.

The evaluative, directional and planning judgments resulting from program reviews are oriented within the context both of disciplinary/professional norms and department, school, and university missions and goals. The areas in which program quality is evaluated include, but not limited to:

- Student enrollment, retention and graduation.
- Student advisement, engagement and support.
- The quality of educational programs, including assessment of student learning.
- Curricula and curricular contributions to university programs.
- Faculty and department contributions in teaching, research, creative activity, scholarly work and service.
- Diversity and cultural proficiency.
- The quality of outreach activities and service to the institution, the profession and the community.
- The contribution or importance of the program to other campus programs.
- Program governance and administrative support.
- Program operations and resources.
- Facilities, library and other educational resources available to and utilized by the schools.
- Safety and adequacy of physical facilities.
- The sustainability of human and financial resources to maintain a quality program.
- The strengths and weakness of the program.
- Ability to meet accreditation standards.

The HSC has a multi-tiered and multi-dimensional academic review process as a result of its public mission. The review of academic programs includes external organizations such as The Texas Higher Education Coordinating Board (THECB) and the Southern Association of Colleges and Schools Commission on College (SACS-COC), as well as school and program-specific accrediting organizations. The THECB assesses the level of degree productivity within the schools as well as identifying low completer programs that require institutional review. In addition to external review, there is also a comprehensive internal academic review process that includes The University of Texas System and The UT Health Science Center Deans’ Council, HSC Executive Committee and school-specific curriculum committees, admission committees or the equivalent(s).

**Policy**

The HSC mandates that all academic programs receive a comprehensive review on a periodic basis. At a minimum, the academic program review will examine, during a six year cycle, all degree granting programs
including certificate programs within academic units. The academic program review cycle includes the requirements for school-specific accreditation organizations and the THECB. The Vice President for Academic, Faculty, and Student Affairs (http://www.uthscsa.edu/vpaa) collaborates with respective school deans to establish programmatic review dates.

All Centers and Institutes are also reviewed in collaboration with program reviews. The Vice President for Research collaborates with Center and Institute Directors for their review dates.

**Faculty Leadership or School-Specific Equivalent**

The UT Health Science Center San Antonio academic program review process includes multiple internal and external academic review committees that will ensure the process is comprehensive.

Faculty, deans department chairs and duly constituted school committees (including admission, curriculum, promotion) have the primary responsibility for curriculum design, development, management, evaluation and authority to enact curricular change in accordance with school-specific accreditation standards which may include credit hours (or alternative measurement methodology), curriculum objectives, content, integration and linkages across program components, as well as, teaching methodologies, component and overall programmatic evaluations and learning outcomes.

**Current Curriculum and Curriculum Management**

The primary factors that have shaped the current curriculum include:

1. Student-feedback
2. Peer feedback
3. Professional accreditation
4. Research
5. Continuous faculty review of the curriculum
6. Competency based curriculum and assessment of competency
7. National trends

The school specific Curriculum Committee or the equivalent is supported with leadership and supervision from the Vice President for Academic, Faculty, and Student Affairs and the Dean.

**Expertly Blended Review Committee(s) or the Equivalent**

The diverse degree programs offered at the HSC mandate that expertly blended curriculum committees or the equivalent with discipline specific knowledge participate in the academic review process. The school-specific expert blended Curriculum Committee or equivalent is a standing committee as specified in The UT Health Science Center San Antonio Handbook on Operating Procedures (http://www.uthscsa.edu/hop2000).

The Expert Blended review Committee or equivalent is charged minimally to:

- Oversee the evaluation, review, and recommendation for curriculum and content.

- Conduct a periodic needs assessment of courses and programs on various criteria including change in learning content from national regional standards, interest of students and future employers in programs, and the number of graduates from programs.

- Ensure each program has student learning outcomes that are appropriate for the program, including assessment measurement, targets, and benchmarks.

- Assess the duplication of course and/or programs within the School.

- Ensure that each program director is appropriately assessing data to determine of modifications and/or changes to the curriculum are needed.

- Ensure the curriculum has adequate hours and courses to meet the student learning outcomes based on other similar programs and/or national standards.

- Initiated a curriculum mapping process to determine course sequencing, breadth, and depth of course content, student learning outcomes and degree requirements.

- Determine program credit hours or equivalent school-specific accreditation standard of measurement are adequate and state requirements.

- Review student course evaluations trends and trends in student concerns and issues to recommend systems level solutions.

- Review student recruitment publications for accuracy in representing the institution’s practices and policies.

**Faculty Council and Faculty Assembly or Equivalent**

In accordance with the rules and regulations of the Board of Regents of The University of Texas System each of the University schools has a Faculty Council and Faculty Assembly or the equivalent.

The individual Faculty Council or equivalent (UT Health Science Center Policy 1.4.2 (http://www.uthscsa.edu/hop2000/1.4.2.pdf)) acknowledges individual Faculty Councils or equivalent of the Dental School, the Graduate School of Biomedical Sciences, the School of Medicine, the School of Health Professions and the School of Nursing shall act as the principal recommending policy-making and recommending governing body on academic matters of each of their respective schools, subject to the Board of Regents Rules and Regulations of the University of Texas System.

The faculty groups or the equivalent, as defined in school-specific bylaws, shall be responsible, within limitations set by the Regents Rules and Regulations for recommending to the President policies with respect to the following:

- The admission of students and their instruction.

- Approving the curriculum and establishing standards for academic performance, including measures to be taken in case of academic deficiencies.

- The promotion and recommendation to the appropriate dean of candidates to be certified for graduation and the receiving of honors.
The HSC Policy 1.4.3 on Faculty Assembly (http://www.uthscsa.edu/hop2000/1.4.3.pdf) or equivalent also provides for faculty engagement on other institutional matters. The individual faculty assemblies of the Dental School, the Graduate School of Biomedical Sciences, the School of Medicine, the School of Health Professions, and the School of Nursing shall be subject to the authority of the Board of Regents and the authority vested in various administrative offices and subdivisions of the University of Texas System. The members of the Faculty Assembly or equivalent shall exhibit an active interest in the progress and future of the schools and shall be responsible for active participation in major planning for the schools and the campus as a whole. Faculty shall accept responsibility for performing these functions essential to the maintenance and conduct of programs of excellence in all activities of the school. Areas of interest include, but are not limited to, general academic policies and welfare; student life and activities; requirements for admissions and graduation; honors and scholastic performance generally; approval of candidates for degrees; and faculty rules and procedures. In addition, the Faculty Assembly may consult with the Deans on general administrative affairs and on matters pertaining to the development of each school.

**The Texas Higher Education Coordinating Board**

The THECB (http://www.theCB.state.tx.us) has primary responsibility for the review and approval for new degree programs and programs with substantive changes. This process ensures the degree programs are compatible with the institution's role, scope, and mission.

**The University of Texas System/Board of Regents**

The University of Texas System policies and procedures and Board of Regents' Rules and Regulations (http://www.utsystem.edu/bor/rules) for academic program standards also apply to the HSC. Justification for changing, adding and deleting programs requires a review by the University of Texas Vice Chancellor for Health Affairs. The System's standards used for review and approval of academic programs are derived from three overarching principles that guide decisions about program goals, design and implementation at the University of Texas institutions. These principles are (Rule 40307):

- **Mission.** Academic degree programs and certificates should be consistent with the higher education goals and mission of the States of Texas, the University of Texas System and the offering institution. This principle has implications not only for which programs should be offered by the UT System institutions, but also how they are designed and delivered so as to be responsive to the needs of students, parents, and the public and private sectors.

- **Quality.** UT System degree and certificate programs must be of excellent quality. Program design, resources, and implementation plan judged critically in the view of the stated goals for a particular program, should compare favorably with state, national and international standards and competing programs. In general, they should exceed the minimum standards of the Texas Higher Education Coordinating Board or appropriate accrediting bodies.

- **Efficient Use of Resources.** Academic programs at institutions of the UT System must represent good investments and efficient use of public and private resources. Program choices, design and implementation plans should reflect wise use of institutional or shared resources.

The University of Texas System policy also mandates academic programs provide evidence of meeting the following standards:

- Standards relating to Goal, Need, and Fit
- Standards for Quality of Implementation
- Standards for Costs and Revenues
- Compliance Standards
- Standards for Doctoral Programs

The System policy also acknowledges the role and responsibility for faculty in the evaluation and assessment for degree programs and also acknowledges the level of faculty expertise required to participate in the review and evaluation of degree programs. The expertise is compatible with the criteria often associated with promotion and tenure.

**External Review Organizations**

The Southern Association of Colleges and Schools (SACS) Commission on Colleges (http://www.sacscoc.org) conducts an institutional evaluation for reaffirmation of accreditation every ten years and an interim review during the fifth year.

In addition, each school within The UT Health Science Center San Antonio has specialized accrediting agencies. These professional and external organizations ensure that the HSC programs are appropriate to the national standards. More information on these accrediting agencies may be found under each school’s section of this Catalog.

**Additional Web Resources for Schools’ Accreditation Agencies**

- http://dental.uthscsa.edu
- http://gsbs.uthscsa.edu
- http://som.uthscsa.edu
- http://nursing.uthscsa.edu
- http://www.uthscsa.edu/shp/
- http://uthscsa.edu/hop2000/
- http://uthscsa.edu/hop2000/1.4.2
- http://uthscsa/hop2000/1.4.3
- http://uthscsa/hop2000/1.4.4

**Institutional Policies**

Students must abide by all institutional policies, which are administered by pertinent departments and divisions across The University of Texas Health Science Center at San Antonio (HSC). Institutional policies are consistent with those that are also identified in the HSC Handbook of Operating Procedures (http://www.uthscsa.edu/hop2000).

For more detailed information, select a specific HSC Catalog policy from the list.
Alcohol Policy for Student Organizations

The Regents’ Rules and Regulations, Rule 80102, “Alcoholic Beverages” prohibits the use of alcoholic beverages on property and in buildings and facilities owned or controlled by the Health Science Center. However, the President may waive this prohibition with respect to any event sponsored by the University. An event is considered “sponsored” if a budgeted office or department of the Health Science Center is responsible for organizing the event, inviting attendees, and paying expenses related to the event, including the purchase of food and beverages; meetings or events organized and presented by registered faculty, staff, or student organizations are not events sponsored by the Health Science Center.

State law relating to alcoholic beverages will be strictly enforced at all times on property and buildings and facilities owned or controlled by the Health Science Center.

All non-student requests should be made using the Request for Alcoholic Beverages on Campus. The form must be completed and submitted through the Chair or Director of the requesting sponsoring unit to the appropriate Executive Committee member (Dean or Vice President) at least ten (10) working days prior to the event. The Executive Committee member will review the form and make a recommendation to the President as to whether or not the request should be approved.

Students must use the form entitled Request for Alcoholic Beverages on Campus for Student Organizations. This form may be obtained from the Office of Student Life.

Please see Section 8.2.3 “Use of Alcoholic Beverages on Campus”, of the Handbook of Operating Procedures (http://www.uthscsa.edu/hop2000/8.2.3.pdf) for a more detailed explanation of the policy.

Alcohol, Drug and Chemical Abuse Policy

The purpose of this statement is to comply with the federal Safe and Drug-Free Schools and Communities Act Amendment of 1989 and the Drug-Free Workplace Act of 1988. The statements provided below represent the UTHSCSA policy with regard to the abuse and/or distribution of alcohol, drugs, and controlled substances by faculty and staff.

The unlawful manufacture, sale, distribution, dispensing, possession or use of a controlled substance is prohibited in the workplace and on any property under the control of the Health Science Center. A controlled substance is any substance so defined by federal or state statute or regulation.

Please see Section 8.2.1 “Alcohol, Drug and Chemical Matters” in the Handbook of Operating Procedures (http://www.uthscsa.edu/hop2000/8.2.1.pdf) for a more detailed explanation of the policy.

Bookstore

Textbook and supplemental material information, including the maximum extent practicable the International Standard Book Number (ISBN) and retail price information, is available on the website under “Textbooks (http://uthscsa.bncollege.com/webapp/wcs/stores/servlet/TBWizardView?catalogId=10001&langId=-1&storeId=39552).”

A student is not under any obligation to purchase a textbook from a university-affiliated bookstore. The same textbook may be available from an independent retailer, including an online retailer, at a lower price than the price charged for that textbook by a university-affiliated bookstore.

Campus Facilities

Access to Campus Facilities

The responsibility of The University of Texas System Board of Regents is to operate and maintain an effective and efficient system of institutions of higher education and requires that the time, place, and manner of assembly, speech, and other activities on the grounds and in the buildings and facilities of the UT System or institutions be regulated.

Health Science Center facilities may be used by outside organizations with the joint sponsorship of a Health Science Center department. The Health Science Center may recommend joint sponsorship of a project or program when the following listed conditions are met: (1) the educational implications are self-evident and directly supplement the educational purposes of the institution and the academic or administrative mission of the department recommending sponsorship; and (2) there will be no private gain for the cooperating individuals, group, or association. The Health Science Center sponsor when entering into a joint sponsorship of any program assumes full responsibility for all details, including cost, as well as approval of subject, contents, and publicity for the event.

Privacy Rights

Students are entitled to certain privacy rights, especially under the Family Educational Rights and Privacy Act, although any research papers and theses authored by students may be made available to interested members of the public. Students should also bear in mind that any patient’s or patient records they come into contact with are protected based on patient privacy policies under the Health Insurance Portability and Accountability Act (HIPAA) and the HSC Handbook of Operating Procedures (http://www.uthscsa.edu/hop2000).
certain rights with respect to their education records. FERPA applies to those institutions that require funding from the Department of Education and guarantees students three primary rights: to inspect and review their education records; to seek to amend education records; and to exercise some control over the disclosure of information from those education records.

Students at the University of Texas Health Science Center-San Antonio have the right of confidentiality under the federal Family Educational Rights and Privacy Act (FERPA) of 1974. Generally, no one outside the institution shall have access to, nor will the institution disclose any information from students’ educational records without the student’s written consent.

The Health Science Center (http://www.uthscsa.edu) (HSC) affords all the rights under the law to students who are declared independent. However, student education records may be released without written consent for legitimate educational interest. Legitimate educational interest allows for access to educational records by appropriate HSC administrators, faculty members, staff members or contractors acting on behalf of the HSC, who require such access in order to perform their legitimate educational and business purposes of the student or Health Science Center. Examples include:

- to other school officials, including teachers with the university who have been determined by the university to have legitimate education interest;
- to officials of other institutions in which students seek to enroll;
- to persons or organizations providing students financial aid provided that such disclosure is necessary to determine eligibility, amount, conditions or enforcement of terms or conditions of the financial aid;
- to accrediting agencies carrying out their accreditation function;
- to organizations conducting studies for, or on behalf of educational agencies or institutions for the purpose of developing, validating, or administering predictive tests, administering student financial aid programs, and improving instruction, if such studies are conducted in such a manner as will not permit the personal identification of students and their parents by persons other than representatives of such organizations and such information will be destroyed when no longer needed for the purpose for which it is conducted;
- to persons in compliance with judicial order or lawfully issued subpoena, upon condition that the university makes a reasonable effort to notify the student of the order or subpoena in advance of compliance therewith;
- to persons in an emergency in order to protect the health or safety of students or other persons;
- to federal, state, or local officials or agencies authorized by law;
- to the parents of a dependent student, as defined in Section 152 of Internal Revenue Code (http://uscode.house.gov/search/criteria.shtml) of 1954, provided a reasonable effort is made to notify the student in advance;
- to an alleged victim of any crime of violence, the results of the alleged perpetrator’s disciplinary proceeding may be released;
- to authorized agents, vendors, or contractors of the university who have agreed to abide by the provisions of FERPA regarding covered student data.

All the exceptions identified above are permitted under the Act.

Within the Health Science Center community, only those members, individually or collectively, acting in the legitimate educational interest of the students are allowed access to student education records. A legitimate educational interest is determined by the appropriate administrator from the Office of the Registrar in consultation with the Vice President for Academic, Faculty and Student Affairs and the appropriate school-specific Dean. Release of information to a school official having a legitimate educational interest does not serve as permission to share that information with a third party without the student’s written permission.

A record of requests for disclosure and such disclosure of personally identifiable information from student education records shall be maintained by the Office of the Registrar for each student and will also be made available for inspection pursuant to this policy.

The law provides students with:

1. The right to inspect and review education records within 45 days of the day the university receives a request for access. A student should submit written requests that identify the record(s) the student wishes to inspect to the Office of the Registrar or appropriate institutional official. The university official will make arrangements for access and notify the requestor of the time and place where the records may be inspected. If the records are not maintained by the university official to whom the request was submitted, that official will advise the student of the correct official to whom the request should be addressed.

2. The right to request the amendment of an education record(s) that a student believes is inaccurate or misleading. The student should write the university official responsible for the record, clearly identify the part of the record for which a change is requested, and specify why it is inaccurate or misleading. If the university decides not to amend the record as requested, the university will notify the student of the decision and advise that student of his/her right to a hearing regarding the request for amendment. Additional information regarding the hearing procedures will be provided when the student is notified of the right to a hearing. The student may want to consult with staff in the Office of the Registrar regarding his/her appeal rights and/or the hearing procedure associated with an appeal.

3. The right to consent or to withhold consent to disclosures of personally identifiable information contained in a student’s education records, recognizing that FERPA and HSC policy authorize certain disclosures without a student’s prior consent. These exceptions are provided below.

A. Disclosure to school officials with legitimate educational interests. A school official is defined as a person employed by the university in an administrative, supervisory, academic, or support staff position (including law enforcement unit and health staff); a person or company with whom the university has contracted (such as an attorney, auditor, authorized agent, vendor or contractor who has agreed to abide by the provisions of FERPA regarding covered data, or collection agent); a person serving on the Texas Board of Regents or the Board’s staff. A school official has a legitimate educational interest if the official needs to review an education record in order to fulfill his or her professional responsibility.

B. Disclosure to officials of other schools or school systems in which a student seeks or intends to enroll, or where a student is enrolled in or receives services.

C. Disclosure to parents of a dependent student of such parents, as defined in Section 152 of the Internal Revenue Code of 1986, provided that such dependent status is required to be affirmed by a student’s parents in a manner satisfactory to the university prior to release of the student’s records.
D. Disclosure to comply with a judicial order, or lawfully issued subpoena, upon condition that the university makes a reasonable effort to notify the student of the order or subpoena in advance of compliance therewith.

4. The right to file a complaint with the U.S. Department of Education concerning alleged failures by the university to comply with the requirements of FERPA. The name and address of the office that administers FERPA is:

Family Policy Compliance Office
US Department of Education
400 Maryland Avenue, SW
Washington, DC 20202-4605

The Vice President for Academic, Faculty, and Student Affairs has been designated by the HSC to coordinate the inspection and review procedures for student education records, which include admissions, personal, academic, financial, and disciplinary records.

DIRECTORY INFORMATION

The HSC designates the personally identifiable information contained in a student’s education records listed below as “directory information” in order that the university may at its discretion, disclose the information without a student’s further prior written consent. Students requesting that all Directory Information be withheld will have only their first and last name, middle initial, school, photograph, and class listed in the Directory.

As such and at its discretion, the Health Science Center may release historical student and directory Information:

• name, address, telephone number, e-mail address;
• photograph;
• date and place of birth;
• major field of study;
• participation in officially recognized activities;
• dates of attendance;
• most recent previous educational institution attended;
• classification, level or year of study;
• degrees and awards received;
• date of graduation; and,
• enrollment status (undergraduate, graduate or professional; full-time or part-time).

DEFINITION OF TERMS

Family Educational Rights and Privacy Act (FERPA) is a federal law which protects privacy interests of parents and students in their educational records.

An education record includes those records, files, documents and other material that contain information directly related to a student, and are maintained by an educational agency or institution, or by a person acting for such agency or institution. Records include electronic and paper files.

The Registrar’s Office is designated as the official record holder of student education files.

However, education records do not include:

1. Records of instructional, supervisor and administrative personnel and educational personnel ancillary thereto which are in the sole possession of the maker thereof and which are not accessible or revealed to any other person except a substitute;

2. Records maintained by a law enforcement unit of the educational agency or institution that were created by that law enforcement unit for the purpose of law enforcement;

3. In the case of persons who are employed by an educational agency or institution but who are not in attendance at such agency or institution, records made and maintained in the normal course of business which relate exclusively to such person in that person’s capacity as an employee and are not available for use for any other purpose; or

4. Records on a student who is eighteen years of age or older, or is attending an institution of postsecondary education, which are made or maintained by a nurse practitioner, physician, psychiatrist, psychologist, or other recognized professional or paraprofessional acting in his professional or paraprofessional capacity, or assisting in that capacity, and which are made, maintained, or used only in connection with the provision of treatment to the student, and are not available to anyone other than persons providing such treatment, except that such records can be personally reviewed by a physician or other appropriate professional of the student’s choice.

Additionally, in accordance with UT System requirements, research papers and theses authored by students will be made available to interested members of the public.

Directory Information is information contained in students’ education records that is generally not considered to be harmful or an invasion of privacy if disclosed.

Personally Identifiable Information refers to any data element in an education record that, if disclosed alone or together with another data element, would allow a person to reasonably identify the eligible student who is the record’s subject.

School Official is a person employed by the University in an administrative, supervisory, academic or research, or support staff position (including law enforcement until personnel and health staff); a person or company with whom the University has contracted (such as an attorney, auditor, or collection agent); a person serving on the Board of Trustees; or a student serving on an official committee, such as a disciplinary or grievance committee, or assisting another school official in performing his or her tasks.

Legitimate Educational Interest is established if the information is necessary for the requestor to: perform appropriate tasks specified in a position description or by a contract agreement; perform a task related to a student’s education; perform a task related to the discipline of a student; provide a service or benefit to the student such as health care, counseling, job placement, or financial aid; provide educationally related information to the student concerning extra-curricular activities and student organization; or maintain the safety and security of the campus.
A legitimate educational interest is determined by the appropriate administrator from the Office of the Registrar in consultation with the Vice President for Academic, Faculty and Student Affairs and the appropriate school-specific Dean. Release of information to a school official having a legitimate educational interest does not serve as permission to share that information with a third party without the student’s written permission.

**UNIVERSITY PROCEDURE**

**Required FERPA Training**

The Office of the Registrar requires that all students, staff, and faculty complete FERPA training annually via the Web through the Knowledge Center. Notice of required training reaches students, staff, and faculty through their HSC email accounts, at which time they are prompted to complete online training. Training covers the purpose of FERPA, directory information, and scenarios of potential FERPA violations.

**Student requests for inspection of their education records**

Students who wish to inspect their records should fill out the Request to Review Education Records Form in the Office of the Registrar. The form is available on the Registrar’s Office web site.

The Registrar or other designated record custodian will make the needed arrangements and advise the student when and where the records will be available. The procedure will be completed as promptly as possible, but in all cases the student will be permitted to inspect the record within seven business days after the custodian receives the student’s request with the following limitations:

1. Financial records and statements of their parents or any information contained therein; Confidential letters of recommendation and confidential statements of recommendation which were placed in the education records of the student, respecting admission to an educational institution, an application for employment, or the receipt of an honor or honorary recognition, provided that the student has waived his or her right to inspect and review those letters and statements of recommendation.
2. Any records that contain personally identifiable information about more than one student, a student may inspect only that information which relates to her/him.

If for any valid reason such as work hours, distance from a student’s place of residence to a record location, distance between records location sites, or health, a student cannot personally inspect and review her/his education record, the HSC will arrange for the student to obtain copies of the record.

**Request for correction of an education record**

The HSC encourages students to periodically inspect and review their education records to make certain the records correctly reflect their academic progress and other achievements.

The school-specific Dean assumes the full responsibility for the process, procedure, and final decision for student request to revise educational records. The final decision is conveyed to the student, the Registrar and the Vice President for Academic, Faculty, and Student Affairs.

**Challenges to the Content of Records**

**Hearing-Informal Proceedings**

Students shall have an opportunity to a hearing to challenge the content of the student record, to insure that the record is not inaccurate, misleading, or otherwise in violation of the privacy of other rights of students, and to provide an opportunity for the correction or deletion of any such inaccurate, misleading, or otherwise inappropriate data contained therein and to insert into such records a written explanation of the student respecting the content of such records. Any explanation placed in the education record of the student shall be maintained by the HSC.

The HSC shall attempt to settle any dispute with a student regarding the content of the student’s education record through informal meetings and discussions with the student. Upon the request of either the student or the university official responsible for a particular portion of the student record in question, a hearing shall be conducted by the Registrar.

1. Such hearing and decisions shall be made by a panel of university faculty and professional staff who do not have a direct interest in the outcome of the hearing.
2. The hearing shall be conducted within twenty days following the request for hearing.
3. The student shall be afforded notice of the date, place, and time at least five days in advance of the hearing, and shall be afforded a full and fair opportunity to present evidence relevant to the issue pertinent to his or her challenge. The student may be assisted or represented by individuals of his or her choice at his or her expense, including an attorney.
4. The decision shall be rendered in writing within twenty days following the conclusion of the hearing, and shall be based solely upon the evidence presented at the hearing and shall include a summary of the evidence and the reasons for the decision.

**Request for Directory Information**

Custodians of records will refer all requests for directory information about students to the Registrar. Any requests by external agencies for directory information shall also be directed to the Registrar. Costs for preparing the information shall be borne by the requesting parties.

**Custodians of Education Records**

The HSC reserves the right to refuse to permit a student to inspect and review the following education records:

1. financial records of the student’s parents or guardian;
2. statements and confidential letters of recommendation prepared by university officials or submitted with the student’s application for admission which were placed in the educational records of a student prior to January 1, 1975 or for which the student has waived her/his right of access in writing;
3. records of instructional, administrative, and educational personnel which are kept in the sole possession of the maker and are not accessible or revealed to any other individual except a temporary substitute for the maker;
4. records of law enforcement units;
5. employment records related exclusively to an individual’s employment capacity;
6. medical and psychological records;
7. thesis or research papers; or
8. records that only contain information about an individual after the individual is no longer a student at the institution.

Copies

Students may have copies of their educational records. These copies will be made at the student's expense at rates authorized in the Texas Public Information Act except for official transcripts.

Deceased Students

Records of deceased students, current or former, will be reviewed within 90 days after death and purged of all documents except the barest essentials such as the transcript.

Access to file

The HSC has placed responsibility for administration of FERPA with the Registrar. This office is responsible for the administration of this policy. Students who have problems or questions related to the policy should contact the Office of the Registrar (http://students.uthscsa.edu/registrar) for help. Those who wish to file a complaint under FERPA should do so in writing to the following address:

Family Policy Compliance Office
U.S. Department of Education
400 Maryland Avenue, SW
Washington, DC 20202-5901

Infection Policy (AIDS, HIV, and Hepatitis, etc.)

The University of Texas System provides a Policy and Guidelines on Bloodborne Pathogens Including Human Immunodeficiency Virus (HIV) Hepatitis B Virus (HBV), and Hepatitis C Virus (HCV). The purpose of this policy is to provide guidance in complying with statutes concerning bloodborne pathogens including human immunodeficiency virus (HIV), Hepatitis B virus (BHIV), and Hepatitis C virus (HCV). In addition, the medical, educational, legal, administrative, and ethical issues related to specific situations involving persons with HIV or HBV infections in the following areas are addressed:

- Administrative policies;
- Residence life;
- Health education;
- Testing for HIV, HBV, HCV infection;
- Confidentiality of information related to persons with AIDS, HIV, HBV, or HCV infection; and
- Patient care.

This policy is applicable to students, faculty, and employees of the Health Science Center and shall be made available to students, faculty, and staff members of the University by its inclusion in the student, faculty, and personnel guides if practicable, or by any other method. More detailed information about bloodborne pathogens can be found in The UTHSCSA Handbook of Operating Procedures (HOP) The UTHSCSA Handbook of Operating Procedures (http://www.uthscsa.edu/hop2000/8.1.1.pdf) . The policies that follow are published to reflect those policies in The HOP.

ADMISSION OF HEALTH PROFESSIONS STUDENTS WITH AIDS OR HIV INFECTION

The Health Science Center shall not inquire about the HIV status of any applicant for admission to the Health Science Center unless it has been determined that the condition of being infected is grounds for denial of admission. Admission or hiring of an asymptomatic HIV-infected applicant can only be denied on the basis of such infection if the institution concluded, on the basis of sound medical and scientific evidence, that the applicant’s infected status would prevent him or her from completing essential degree requirements and that no reasonable accommodation could be made that would enable the applicant to do so.

SCREENING FOR HIV-1 INFECTION

The Health Science Center will not initiate mandatory HIV screening of students, faculty, staff, or employees unless justified by evidence of significant risk to patients.

The Health Science Center encourages students, faculty, staff, and employees who believe they are at risk of HIV infection to seek testing and counseling. The Health Science Center shall provide information about the availability of confidential and anonymous testing programs. In addition, the Health Science Center shall provide information and/or access to counseling for students, faculty, staff, employees, and others about the implications of positive or negative testing for career and future health.

Students, Faculty, Staff, and Employees with Positive Antibody to HIV-1 or Clinically Manifest AIDS or AIDS-Related Complex

It is expected that all students, faculty, staff, and employees will be bound to the principle of strict confidentiality in all patient and healthcare related activities.

As stated in Sections 8.1.3 and 8.1.4 of The HOP, “Screening for HIV-1 Infection” and “Students, Faculty, Staff and Employees with Positive Antibody to HIV-1 or Clinically Manifest AIDS or AIDS – Related Complex,” The UTHSCSA encourages students, faculty, staff, and employees who believe they are at risk of HIV-infection to seek testing and counseling. The UTHSCSA shall provide counseling about access to confidential and anonymous HIV-antibody testing, about the implications of positive or negative results for career and personal health, about the availability of expert medical care, and about the prevention of further spread of infection.

Interaction with Patients with Bloodborne Pathogens

Entry into the healthcare professions is a privilege offered to those who are prepared for a lifetime of service to the ill. Students, faculty, and healthcare staff have a fundamental responsibility to provide care to all patients assigned to them, regardless of diagnosis. A failure to accept this responsibility violates a basic tenet of the medical profession: to place the patient’s interests and welfare first.

Individuals who feel that their activities within the Health Science Center pose a special risk to their health because of exposure to bloodborne pathogen-infected patients, working conditions presenting a risk of exposure to bloodborne pathogens, or the presence of a bloodborne pathogen infection in the individual himself or herself, should seek the assistance of their immediate supervisor.
Infection Policy and Education Committee
The Health Science Center has established an Infection Policy and Education Committee that exists as a resource to address issues related to bloodborne pathogen infection on a case-by-case basis in the Health Science Center. The Committee serves as an advisory body to the Executive Committee of the Health Science Center and may arbitrate concerns or provide recommendations for the resolution of these infection-related issues.

EDUCATION OF STUDENTS, FACULTY, STAFF, AND EMPLOYEES ABOUT BLOODBORNE PATHOGENS

This section provides information regarding education on bloodborne pathogens to the University community based on The UTHSCSA Handbook of Operating Procedures (http://www.uthscsa.edu/hop2000/8.1.6.pdf).

Guidance
As stated in the Health Science Center's Exposure Control Plan, the Health Science Center adheres to the Universal or Standard Precautions for the Prevention of Transmission of Human Immunodeficiency Virus, Hepatitis B Virus, and Other Bloodborne Pathogens in Health Care Settings published by the Centers for Disease Control and Prevention. Consistent with the early education of students, staff, and employees in these and other pertinent data relevant to potential infection, the following approach will be taken.

Educational Program
Each School will provide a program on prevention of exposure to infectious organisms in professional and personal situations early in the student’s educational experience and at the beginning of clinical rotations.

Each administrative division of the Health Science Center will provide an educational program for staff and employees to take place early in the employment and to focus upon prevention of exposure to infectious organisms in the workplace as warranted by the occupational risk.

Content of Program
The Infection Policy and Education Committee shall advise and review the development of appropriate educational programs. At the conclusion of Health Science Center educational programs/curriculum on bloodborne pathogens, the participant should be able to:

1. Have a basic understanding of HIV, HBV, and HCV as viral disease and its natural history.
2. Recognize how viruses are transmitted and contacts that do not transmit the virus.
3. Recognize the symptoms of bloodborne pathogens and the degrees/stages of these illnesses.
4. Identify precautions one must take in one’s own area of practice or work regarding the bloodborne pathogens.
5. Familiarize oneself with institutional policies about bloodborne pathogens as described in the Health Science Center’s Exposure Control Plan.
6. Recognize one’s own role in alleviation of anxiety and misinformation.

7. Be aware of local policies regarding testing and referral information as described in Section 8.1.1, “The University of Texas System Policy and Guidelines” of the Handbook of Operating Procedures.”
8. Identify legal and ethical issues that may potentially impact patient care.

Important Information about Bacterial Meningitis
Pursuant to SB 1107 recently enacted by the State of Texas, all new students enrolling in the UT Health Science Center must provide proof that the meningitis vaccination was administered at least 10 days prior to the first day of the term. Vaccinations must have been received or renewed within the last 5 years. The legislation provides two exceptions:

1. students who are over 21 years of age and
2. students taking 100% of classes online.

Students who qualify for exceptions and wish to exercise the same must complete an exception form. Failure to do so consistent with the noted time frame will preclude registration.

Bacterial Meningitis is a serious, contagious, potentially deadly disease that can progress extremely fast, so take utmost caution. It is an inflammation of the membranes that surround the brain and spinal cord. The bacteria that cause meningitis can also infect the blood. This disease strikes about 3,000 Americans each year, including 100–125 on college campuses, leading to 5–15 deaths among college students every year. There is a treatment, but those who survive may develop severe health problems or disabilities. Keeping up to date with recommended immunizations and maintain health habits such as getting plenty of rest and avoiding close contact with sick people, are ways to prevent Meningitis.

What are the symptoms?
- High fever
- Severe headache
- Vomiting
- Rash or purple patches on skin
- Stiff neck
- Light sensitivity
- Nausea
- Confusion and sleepiness
- Seizures
- Lethargy

There may be a rash of tiny, red-purple spots caused by bleeding under the skin. These can occur anywhere on the body.

The more symptoms, the higher the risk, so when these symptoms appear seek immediate medical attention. How is bacterial meningitis diagnosed? Diagnosis is made by a medical provider and is usually based on a combination of clinical symptoms and laboratory results from spinal fluid and blood tests.

Early diagnosis and treatment can greatly improve the likelihood of recovery.

How is the disease transmitted?
• The disease is transmitted when people exchange saliva (such as by kissing, or by sharing drinking containers, utensils, cigarettes, toothbrushes, etc.) or come in contact with respiratory or throat secretions.

How do you increase your risk of getting bacterial meningitis?
• Exposure to saliva by sharing cigarettes, water bottles, eating utensils, food, kissing, etc.
• Living in close conditions (such as sharing a room/suite in a dorm or group home).

What are the possible consequences of the disease?
• Death (in 8 to 24 hours from perfectly well)
• Permanent brain damage
• Kidney failure
• Learning disability
• Hearing loss, blindness
• Limb damage (fingers, toes, arms, legs) that requires amputation
• Gangrene
• Coma
• Convulsions

Can the disease be treated?
• Antibiotic treatment, if received early, can save lives and chances of recovery are increased. However, permanent disability or death can still occur.
• Vaccinations are available and should be considered for those living in close quarters and college students 25 years old or younger.
• Vaccinations are effective against 4 of the 5 most common bacterial types that cause 70% of the disease in the U.S. (but does not protect against all types of meningitis).
• Vaccinations take 7–10 days to become effective, with protection lasting 3–5 years.
• The cost of vaccine varies so check with your health care provider.
• Vaccination is very safe – most common side effects are redness and minor pain at injection site for up to two days.

How can I find out more information?
• Contact your own health care provider.
• Contact the Student Health Center at 567-WELL (9355).
• Contact Web sites:
  • http://www.cdc.gov/ncidod/dbmd/diseaseinfo
  • http://www.acha.org (Under “Show resources on,” select “Meningitis.”)

Gang-Free Zones Policy
Premises owned, rented or leased by The University of Texas Health Science Center at San Antonio and areas within 1,000 feet of the premises are “gang-free” zones. Certain criminal offenses, including those involving gang-related crimes, will be enhanced to the next highest category of offense if committed in a gang-free zone by an individual 17 years or older. See Texas Penal Code, Section 71.028 (http://www.statutes.legis.state.tx.us/Docs/PE/htm/PE.71.htm).

Hazing Policy
Hazing in state educational institutions is prohibited by both state law (Sections 51.936 and 37.151, Texas Education Code), and by the Rules and Regulations of the Board of Regents of The University of Texas System (Series 50101, Section 2.8). Individuals or organizations engaging in hazing could be subject to fines and charged with criminal offenses. Additionally, the law does not affect or in any way restrict the right of the university to enforce its own rules against hazing.

According to the law, a person commits a hazing offense if the person engages in hazing; solicits, directs, encourages, aids, or attempts to aid another in hazing; intentionally, knowingly, or recklessly allows hazing to occur; or fails to report firsthand knowledge that a hazing incident is planned or has occurred in writing to the chief student affairs officer. The fact that a person consented to or acquiesced in a hazing activity is not a defense to prosecution for hazing under this law.

An organization commits an offense if the organization condones or encourages hazing or if an officer or any combination of members, pledges, or alumni of the organization commits or assists in the commission of hazing.

The law defines hazing as any intentional, knowing, or reckless act, occurring on or off the campus of an educational institution, by one person alone or acting with others, directed against a student, that endangers the mental or physical health or safety of a student for the purpose of pledging, being initiated into, affiliating with, holding office in, or maintaining membership in an organization whose members are or include students at an educational institution.

Hazing includes but is not limited to:
1. any type of physical brutality, such as whipping, beating, striking, branding, electronic shocking, placing of harmful substance on the body, or similar activity;
2. any type of physical activity, such as sleep deprivation, exposure to the elements, confinement in a small place, calisthenics, or other activity that subjects the student to an unreasonable risk of harm or that adversely affects the mental or physical health or safety of the student;
3. any activity involving consumption of food, liquid, alcoholic beverage, liquor, drug, or other substance that subjects the student to an unreasonable risk of harm or which adversely affects the mental or physical health of the student;
4. any activity that intimidates or threatens the student with ostracism; that subjects the student to extreme mental stress, shame, or humiliation; or that adversely affects the mental health or dignity of the student or discourages the student from entering or remaining registered in an educational institution, or that may reasonably be expected to cause a student to leave the organization or the institution rather than submit to acts described in this subsection; and
5. any activity that induces, causes, or requires the student to perform a duty or task which involves a violation of the Penal Code. The fact that a person consented to or acquiesced in a hazing activity is not a defense to prosecution.

Any student who engages in conduct that constitutes hazing is subject to disciplinary action regardless of whether he or she is charged with a criminal offense.
In an effort to encourage reporting of hazing incidents, the law grants immunity from civil or criminal liability to any person who reports a specific hazing event in good faith and without malice to the chief student affairs officer and immunizes that person from participation in any judicial proceeding resulting from that report. The penalty for failure to report is a fine of up to $1,000, up to 180 days in jail, or both. Penalties for other hazing offenses vary according to the severity of the injury that results and range from $500 to $10,000 in fines and up to two years confinement.

The law does not affect or in any way limit the right of the university to discipline;

The Health Science Center (HSC) sponsors numerous off-campus activities involving students. In order to effectively manage these activities while minimizing institutional liability risks, this student travel policy must be followed.

**STUDENT TRAVEL**

In accordance with Texas Education Code Section 51.949, student travel is defined as follows:

The trip is undertaken by one or more currently enrolled students to reach and activity or event that meets all of the following criteria:

a. An activity or event organized and sponsored by the HSC. The event shall be planned and funded by the institution and approved by a designated administrator.

b. The activity or event is located more than 25 miles from Health Science Center campuses.

c. Travel to the activity or event is funded and undertaken using a vehicle owned or leased by the HSC, or attendance at the activity, or event is required by a registered student organization and has prior written approval by the Appropriate Institutional Officer.

**DESIGNATED ADMINISTRATOR (DA)**

The designated administrator shall be the respective Associate Dean of Student Affairs of each school.

**APPROPRIATE INSTITUTIONAL OFFICER (AIO)**

For purposes of this policy, any HSC employee overseeing the off campus activity shall be identified as the Appropriate Institutional Officer (AIO). The AIO is responsible for compliance of this policy.

**UNIVERSITY PROCEDURE**

Appropriate Institutional Officer (AIO)

At least one AIO must accompany students on any off-campus activity. AIO is responsible for knowing the University Standard of Conduct and policies as outlined in this document. AIO must make clear to all participants the consequences or non-compliance, and the AIO must take appropriate action when aware that participants are in violation. All AIOs are trained regarding the sexual harassment policy, and ADA guidelines.

**Assessment**

AIOs shall assess all health and safety conditions for each activity and all information shall be provided for prospective participants so the participants can make informed decisions concerning preparation, participation and behavior while on the trip.

**Trip Participation Forms**

Each participant or the participant’s parent/guardian in the case of a minor must complete, sign and return the Student Travel Information and Release Form (http://www.uthscsa.edu/hop2000/forms-10/student_release.pdf) to the AIO prior to the trip. The AIO is responsible for maintaining these records in a manner that ensures timely access to the medical information for each participant in case of an accident or health-related emergency. The AIO shall also complete a Student Travel (http://www.uthscsa.edu/hop2000/forms-10/student_travel.pdf) form and submit copies to the respective DA (Associate Dean of Student Affairs) and University Police prior to each trip.

**Student Travel Policy**

**UNIVERSITY DECISION**

The Health Science Center (HSC) sponsors numerous off-campus activities involving students. In order to effectively manage these activities...
Medical Insurance
All enrolled HSC students are required by State Law to have continuous medical insurance coverage, including international students. A copy of the student’s proof of insurance shall be attached to the Student Travel Information and Release Form (http://www.uthscsa.edu/hop2000/forms-10/student_release.pdf).

Weapons, Illegal Substances and Alcohol
Use, possession or transporting of weapons, illegal substances and/or alcohol is forbidden while on a University sponsored trip.

University Owned Vehicles/Rental Vehicles/Commercial Carriers
All operators of University owned or leased vehicles shall be employees of Health Science Center who must be trained as required by law to drive the vehicles and have valid operators’ licenses to drive the vehicle that will be used.

In addition, operators shall have a current “Motor Vehicle Record” on file with the individual department’s personnel administrator. All operators of motor vehicles shall comply with all laws, regulations, and posted signs regarding speed and traffic control and shall not operate the vehicle for a continuous period that is longer than the maximum provided by federal or state law or regulations or guidelines promulgated by the HSC, whichever is lower, without scheduled rest stops or overnight stops. There should be no driving between the hours of 11:00 p.m. and 6:00 a.m. without prior approval of the AIO.

When rental cars are used, the same policy applies and all applicable requirements of the state contracts for rental cars and the University of Texas System Business Procedure Memoranda apply.

All HSC owned or leased motor vehicles must have current proofs of liability insurance coverage and state inspection certification, be equipped with all safety devices or equipment required by federal or state law or regulation, and comply with all other applicable requirements of federal or state law or regulations.

In addition, all HSC owned or leased vehicles must have scheduled periodic service and maintenance by qualified persons and comply with all applicable requirements of the University of Texas System Business Procedure Memoranda.

All occupants or motor vehicles shall use seat belts or other approved safety restraint devices required by law or regulation at all times when the vehicle is in operation.

The total number of passengers in any vehicle at any time it is in operation shall not exceed the manufacturer’s recommended capacity or the number specified in applicable federal or state law or regulations, whichever is lower. In addition, when the luggage load is excessive, it is highly recommended the passenger load be reduced accordingly. The weight of the passengers and luggage should be distributed evenly throughout the vehicle.

When commercial carriers are used, the same policies apply and all participants shall observe the carrier’s safety guidelines.

Emergency Procedures
All AIOs are to follow the predetermined emergency notification procedures while on trips.

Monitoring
When any incident relating to students occurs on the trip, the AIOs are to notify the supervisors as soon as possible, and the supervisors shall notify the respective DA (Associate Dean of Student Affairs). Following the trip a report shall be submitted by the AIO’s to the respective DA (Associate Dean of Student Affairs) documenting the incident so appropriate actions could be taken.

Side Trips/Early and Late Departures
Students traveling on institutionally-approved trips must arrive at and depart the site at the same time as the AIOs unless prior approvals are given by the AIOs for special circumstances. Side trips from the predetermined itineraries are at the discretion of the AIOs.

Solicitation Policy
Solicitation is defined as the sale, lease, rental or offer for sale, lease, rental of any property, product, merchandise, publication, or service, whether for immediate or future delivery; an oral statement or the distribution or display of printed material, merchandise, or products that is designed to encourage the purchase, use, or rental of any property, product, merchandise, publication, or service; the receipt of or request for any gift or contribution; or the request to support or oppose or to vote for or against a candidate, issue, or proposition appearing on the ballot at any election held pursuant to State or Federal law or local ordinances.

No solicitation, as defined above, shall be conducted on any property, street, or sidewalk, or in any building, structure, or facility owned or controlled by The University of Texas System or any of its institutions unless permitted by the Regents’ Rules and Regulations, Series 80103, shall be conducted on the campus of the Health Science Center with the following exceptions:

1. Registered student organizations may collect membership fees and admission for events and similar activities only if prior approval is obtained from the Vice President for Academic, Faculty and Student Affairs and the required accounting for such activities is made to the Vice President for Academic, Faculty and Student Affairs.

2. Major focus for fund-raising activities on the campus of the Health Science Center should be to generate funds for University programs and the State Employee Charitable Campaign (SECC). Requests by other off-campus, non-profit 501(c)(3) organizations to conduct fund-raising activities must be forwarded to the Vice President and Chief Development Officer for review. Only the Health Science Center Executive Committee may authorize such events.

Student Right-To-Know Act and Campus Security Act
Your Right to Know
The Jeanne Clery Act is the landmark federal law that requires colleges and universities to disclose information about crime on and around their campus. The “Clery Act” is named in memory of a 19-year-old Lehigh University freshman named Jeanne Ann Clery, who was sexually assaulted and murdered in her residence hall room on April 5, 1986.

The UT Health Science Center is committed to assisting the Health Science Center (HSC) community in providing for its own safety and security. Information regarding campus security, personal safety, crime
prevention, university police law enforcement authority, crime reporting policies, crime statistics for the most recent three-year period, and disciplinary procedures is available on the UTHSCSA police department.

If you would like a paper copy of this information, you may contact the crime prevention office at 210-562-9095.

Crime Statistics

The University Police Department compiles statistics of crimes occurring on the campus. Reports of these statistics are forwarded to The Office of the Director of Police of The University of Texas System, to the Texas Department of Public Safety, and to the Federal Bureau of Investigation. Statistics are provided to meet compliance requirements established in the Clery Act. Persons with questions about the information may contact the Chief of Police at (210) 567-2790. Information is available upon request.

Crime Reporting

Numerous efforts are made to advise members of the campus community about campus crime and crime-related problems.

1. Annual Report: A comprehensive annual report of crime-related information is compiled, published, and made available for distribution. This report is available to the media and any member of the campus community or members of their immediate family.

2. Special Crime Alerts: If circumstances warrant, special crime bulletins can be printed and distributed throughout the campus.

3. Emergency Notifications/Timely Warnings: When crimes occur on or near the campus property that pose a continuing threat to the safety or health of the campus community, immediate notifications will be made utilizing the HSC Alert text message notification system.

4. Electronic Mail: In extreme situations, crime bulletins can be prepared and disseminated, utilizing the campus electronic mail system.

DEFINITION OF TERMS

Campus

“(i) any building or property owned or controlled by the institution of higher education within the same reasonable contiguous geographic area and used by the institution in direct support of, or related to its educational purposes; or (ii) any building or property owned or controlled by student organizations recognized by the institution.”

Contained herein, “campus” and/or “The University of Texas Health Science Center at San Antonio” refers to The UT Health Science Center San Antonio and the 8403 Floyd Curl Campus, inclusive.

Branch campuses, schools, or divisions that are not within a reasonable contiguous geographic area are considered separate campuses for the reporting requirements.

In most cases, fraternity, sorority, and other organizational housing units will be considered part of the campus regardless of location and ownership. Other areas that may be included are recreation/camp sites, research facilities, teaching hospitals, and foreign campuses.

Crimes

While not defined in the law, the National Association of Student Personnel Administrators, Inc. (NASPA) suggests that a crime is “reported” when a campus police officer investigating an incident determines that a crime has occurred or a local police agency notifies a component that it has documented a report of a criminal offense that has occurred “on campus” as defined by this Act.

For the purposes of the Act, the offenses for which statistics must be reported are to be defined in accordance with the FBI’s Uniform Crime Report (UCR) system, as modified by the Hate Crimes Statistics Act.

Arrest

“A person is arrested when he/she has actually been placed under restraint or taken into custody by an officer or person executing a warrant of arrest, or by an officer or person arresting without a warrant.” Article 15.22, Texas Code of Criminal Procedure (located under “Texas Statutes”).

Student

While not defined in the law, all persons who are registered during the current semester or take at least one course for credit may be considered “students.”

Employees

Full-time and part-time employees of the component with regularly scheduled hours of employment should be considered “employees.”

Security Awareness and Crime Prevention/Community Policing Programs

Preventing crimes from occurring, rather than reacting after the fact, are the philosophy of The UT Health Science Center San Antonio. A primary vehicle for accomplishing this goal is the University Police Department’s comprehensive crime prevention program. It is based upon the dual concepts of eliminating or minimizing criminal opportunities, whenever possible, and encouraging students and employees to share the responsibility for their own security and that of others around them. Below is a listing of crime prevention programs and projects supported and employed by the Health Science Center.

1. Emergency Intercom System: All emergency telephones and intercoms (interior, exterior, late-entry doors, and elevators) throughout the campuses are directly linked to the University Police Department Communications Center. Once activated they must be deactivated by a University Police officer, Public Safety Officers, or communications officer.

2. Closed-Circuit Television. Surveillance: Numerous closed-circuit television cameras are employed throughout the campuses, including parking lots and public areas, and are monitored by the University Police Department.

3. Electronic Security Alarm Systems: A sophisticated computer-based electronic monitoring system located at the University Police Department Communications Center monitors a comprehensive network of intrusion detection and duress alarm systems.

4. Crime Prevention Presentations: Numerous crime prevention presentations are made annually to campus faculty, staff, and students.

5. Printed Crime Prevention Materials: Printed crime prevention brochures, posters, and newsletters related to theft prevention, motor vehicle security, bicycle security, personal security, and escort security are widely distributed at crime prevention presentations and made available at the University Police Building.

6. Crime Prevention Publicity: Crime prevention articles and crime statistics are distributed monthly to the campus community through the University Police Newsletter.
7. Operation Identification: The engraving of driver’s license numbers or other owner-recognized numbers on items of value and the cataloging of these items is an ongoing program.

8. Sexual Assault Awareness, Education, and Prevention: Programs are presented throughout the year to the campus community. This includes RAD (Rape Aggression Defense) courses.

9. Security Surveys: Comprehensive security surveys or audits are made for a number of campus departments and facilities each year.

10. Facilities Surveys: Comprehensive annual surveys of exterior lighting, doors, and grounds are conducted by the University Police Department’s crime prevention specialists.

11. Architectural Design: Crime prevention specialists of the University Police Department make significant input into the design of all new and renovated campus facilities as it relates to physical and electronic security systems.

12. Key Control: The University Police Department is the custodian of all campus building interior and exterior door keys/cardkeys. Cores are not changed and keys are not issued except in those instances that conform to established university policy.

13. Area Crime Analysis: On a quarterly basis, a report is compiled using the information furnished by the San Antonio Police Department and Bexar County Sheriff’s Department, which reflect all Part I Crime occurring within a one-mile radius of the main campus as well as satellite locations. This information is available to campus community members upon request.

14. Shuttle Service: The Shuttle Bus Service operates an East and West route between 7703 and 8403 Floyd Curl Drive campuses. The shuttle buses can seat 32 passengers and are compliant with the Americans with Disabilities Act. No off-route or non-scheduled stops will be made. Riders should have their student or employee identification card available to be shown, upon request, to the officer driving the bus. For shuttle schedules, visit the HSC Police website (http://utpolice.uthscsa.edu/divisions/service/shuttles.asp).

HSC Alert and Emergency Information

Important Numbers

Emergencies

911 (from a campus “land line” phone = UT Police)

911 (from a cell phone on campus = San Antonio Police.)

24-hour Message

210-567-7669 (567-SNOW)

956-565-UTEL

Buildings/Utilities

210-567-2885

After Hours

210-567-2947

Computer Systems

210-567-2069

Environmental Health and Safety

210-567-2955

Network/Phones

210-567-2061

Police Non-emergency

Edinburg: 956-316-7151

Harlingen: 956-365-8900

Laredo: 956-523-7414

San Antonio: 210-567-2800

Emergency Information Outlets

The Office of Environmental Health and Safety shows emergency exits in campus buildings, and lists procedures for emergency response.

- Emergency Response and Evacuation Plan (http://research.uthscsa.edu/safety/emergencyresponse.pdf)

The National Hurricane Center describes how to prepare for the hazards of a hurricane.

- Hurricane Preparedness (http://www.nhc.noaa.gov/prepare/ready.php)

The Department of Homeland Security rates the risk of a terrorist attack based on the government’s five-color security advisory system. The Homeland Security Advisory System is designed to guide our protective measures when specific information to a particular sector or geographic region is received. It combines threat information with vulnerability assessments and provides communications to public safety officials and the public.

- National Terrorism Advisory System (http://www.dhs.gov/national-terrorism-advisory-system)

TxDOT provides roadway and travel information around-the-clock, and reports on road closures in times of emergency.

- Texas Department of Transportation (http://www.txdot.gov)

The State of Texas publishes information about homeland security threat levels in Texas and what Texans can do to be prepared and involved.

- Texas Homeland Security (http://www.texashomelandsecurity.com)

Student Criminal Background Checks

As specified under the University Admissions Policy, certain programs require students to submit to and satisfactorily complete a criminal background check as a condition of admission, re-admission and/or participation in education experiences. Accepted applicants and current students are responsible for the costs associated with obtaining criminal background checks. Students who refuse to submit to a background check or who do not pass the background check may be dismissed from the program.

Graduating students seeking professional certification and/or licensure to practice in the state of Texas may be denied employment opportunities based on unsatisfactory criminal background checks as determined by licensing agencies and employers.

Students seeking internships or employment as teachers in the state of Texas should be aware that many Texas school districts require applicants
for student teaching or field experiences to undergo a criminal history background check prior to placement in the school district. School districts may deny placement of students with a criminal background. If a school district denies a placement for this reason, the student’s department may attempt to assist the student in obtaining a placement in an alternate district. Students should be aware, however, that if they are unable to obtain a placement they may not meet requirements for a teaching degree or teacher certification. Additionally, the Texas State Board for Educator Certification (SBEC) regulates the certification of educators to teach Texas public school children. Before an individual can be certified, SBEC must conduct a criminal background check to ensure an applicant's suitability to interact with children. Working with the Texas Department of Public Safety (DPS), the agency conducts statewide criminal history background checks on all applicants for educator certification. Students pursuing educator preparation should be aware that some criminal histories may lead to the denial of certification as a teacher. Students may obtain additional information from SBEC.

Student Conduct and Discipline Policy

UNIVERSITY DECISION

The University of Texas Health Science Center at San Antonio (HSC) will provide notice to all students on policies and procedures concerning student conduct and discipline. Students are responsible for knowing and observing these university’s procedures and regulations governing Student Conduct and Discipline.

The HSC includes five schools: School of Nursing, School of Medicine, Dental School, School of Health Professions and Graduate School of Biomedical Sciences. Each school has a designated person that serves in the capacity as the chief of student affairs. Though each school may have different titles for this individual, the responsibility for the effective management of student conduct and discipline reside with the designated school-specific person. In addition, each school may have additional student discipline and conduct policies based upon school-specific accreditation standards. In summary, the procedures and regulations provide that the person acting as the School-Specific Chief Student Affairs Official of each school shall have direct responsibility for the administration of the disciplinary process in cases concerning scholastic dishonesty and professional misconduct.

The Rules and Regulations of the Board of Regents of the UT System below should be consulted in reference to questions concerning conduct and discipline.

PERTINENT INFORMATION

All students are expected and required to obey federal, State, and local laws, to comply with the Regents’ Rules and Regulations, with The University of Texas System and institutional rules and regulations, with directives issued by an administrative official of the U. T. System or the University of Texas Health Science Center at San Antonio in the course of his or her authorized duties, and to observe standards of conduct appropriate for an academic institution.

Who is Subject to Discipline

Any student who engages in conduct that violates the Regents’ Rules and Regulations, the U. T. System or institutional rules and regulations, specific instructions issued by an administrative official of the institution or the U. T. System acting in the course of his or her authorized duties, or federal, State, or local laws is subject to discipline. A student is subject to discipline for prohibited conduct that occurs on or off campus, including but not limited to institution or U. T. System sponsored off-campus activities such as field trips, internships, rotations or clinical assignments, regardless of whether civil or criminal penalties are also imposed for such conduct.

Scholastic Dishonesty

Any student who commits an act of scholastic dishonesty is subject to discipline. Scholastic dishonesty includes but is not limited to cheating, plagiarism, collusion, the submission for credit of any work or materials that are attributable in whole or in part to another person, taking an examination for another person, any act designed to give unfair advantage to a student or the attempt to commit such acts.

Drugs

Any student who is found responsible for the illegal use, possession and/or sale of a drug or narcotic is subject to discipline. If a student is found responsible for the illegal use, possession, and/or sale of a drug or narcotic on campus, the minimum sanction assessed shall be suspension from the institution for a specified period of time and/or suspension of rights and privileges.

Health or Safety

Any student who engages in conduct that endangers the health or safety of any person, including him or herself, may be subject to discipline.

Disruptions

Any student who, acting singly or in concert with others, obstructs, disrupts, or interferes with any teaching, educational, research, administrative, disciplinary, public service, or other activity or public performance authorized to be held or conducted on campus or on property or in a building or facility owned or controlled by the U. T. System or institution is subject to discipline. Obstruction or disruption includes but is not limited to any act that interrupts, modifies, or damages utility service or equipment, communication service or equipment, university computers, computer programs, computer records or computer networks accessible through the university’s computer resources.

Inciting Lawless Action

Any student who engages in speech, either orally or in writing, which is directed to inciting or producing imminent lawless action and is likely to incite or produce such action is subject to discipline.

Unauthorized Use of Property

Any student who engages in the unauthorized use of property, equipment, supplies, buildings, or facilities owned or controlled by the U. T. System or institution is subject to discipline.

Hazing

Any student who, acting singly or in concert with others, engages in hazing is subject to discipline. Hazing in State educational institutions is prohibited by State law (Texas Education Code Section 51.936 (http://www.statutes.legis.state.tx.us/Docs/ED/htm/ED.51.htm#51936) and Sections 37.151-37.157 (http://www.statutes.legis.state.tx.us/Docs/ED/htm/ED.37.htm#37151)). Hazing with or without the consent of a student whether on or off campus is prohibited, and a violation of that prohibition renders both the person inflicting the hazing and the person submitting to the hazing subject to discipline. Knowingly failing to report hazing can subject one to discipline. Initiations or activities of organizations
may include no feature that is dangerous, harmful, or degrading to the student, and a violation of this prohibition renders both the organization and participating individuals subject to discipline.

**Altering of Official Documents**

A student who alters or assists in the altering of any official record of the U. T. System or institution or who submits false information or omits requested information that is required for or related to an application for admission, the award of a degree, or any official record of the U. T. System or institution is subject to discipline. A former student who engages in such conduct is subject to bar against readmission, revocation of degree, and withdrawal of diploma.

**Vandalism**

Any student who defaces, mutilates, destroys, or takes unauthorized possession of any property, equipment, supplies, buildings, or facilities owned or controlled by an institution or the U. T. System is subject to discipline.

**Use of Explosives, Weapons or Hazardous Chemicals**

Unless authorized by federal, State, or local laws, a student who possesses or uses any type of explosive, firearm, imitation firearm, ammunition, hazardous chemical, or weapon as defined by State or federal law, while on campus or on any property or in any building or facility owned or controlled by the U. T. System or institution, is subject to discipline.

**Prohibited Conduct During Suspension**

A student who receives a period of suspension as a disciplinary sanction is subject to further disciplinary action for prohibited conduct that takes place during the period of suspension.

A former student who has been suspended or expelled for disciplinary reasons is prohibited from being on the campus of any U.T. System institution during the period of such suspension or expulsion without prior written approval of the chief student affairs official of the U.T. System institution at which the suspended or expelled student wishes to be present. In a request for such approval, the former student is required to disclose in writing each institution from which the individual has been suspended or expelled and the conduct leading to the disciplinary action.

**DEFINITION OF TERMS**

**School-Specific Chief Student Affairs Official**

(Chief Student Affairs Official)

Refers to the administrative officer or officers responsible for the administration of the disciplinary process in each of the specific schools.

**Dean**

Is the university official that has oversight of a specific school. Additionally they may hear an appeal of disciplinary charges from the Chief Student Affairs Official, make findings of fact, and, upon a finding of guilt, impose an appropriate sanction(s).

**Vice President**

Is the Vice President of Academics, Faculty, & Student Affairs that has the final say in the disciplinary process.

**Student**

The following persons shall be considered students for purposes of these policies and regulations:

- A person currently enrolled at an institution of the UT System (http://www.utsystem.edu).
- A person accepted for admission or readmission to an institution of the UT System.
- A person who has been enrolled at an institution of the UT System in a prior semester or summer session and is eligible to continue enrollment in the semester or summer session that immediately follows.
- A person who engaged in prohibited conduct at a time when he or she met the criteria of 1, 2, or 3 immediately above.

**Campus**

Consists of all real property, buildings, or facilities owned or controlled by the institution.

**Weekday**

Monday through Friday, excluding any day that is an official holiday of the institution or when regularly scheduled classes are suspended due to emergent situations.

**Day**

A calendar day; except for days on which the university is officially closed or when regularly scheduled classes are suspended due to emergency situations.

**UNIVERSITY PROCEDURE**

**Disciplinary Process**

Disciplinary charges will be investigated by the Chief Student Affairs Official from the school the student is enrolled. Any student may be summoned by written request of the Chief Student Affairs Official for a meeting for purposes of the investigation and/or to discuss the allegations. The written request shall specify a place for the meeting and a time at least three weekdays after the date of the written request if the request is sent regular mail, or at least two weekdays after the date of the request if the request is sent by e-mail or hand delivered. The written request may be mailed to the address appearing in the records of the registrar, e-mailed to the student at the e-mail address on record with the U.T. institution, or may be hand delivered to the student. If a student fails to appear without good cause, as determined by the Chief Student Affairs Official, the Official may bar or cancel the student’s enrollment or otherwise alter the status of the student until the student complies with the summons, or the Chief Student Affairs Official may proceed to implement the disciplinary procedures provided for in Section 5 of this Rule. The refusal of a student to accept delivery of the notice, the failure to maintain a current address with the registrar, or failure to read mail or e-mail shall not be good cause for the failure to respond to a summons.

**Interim Disciplinary Action**

Pending a hearing or other disposition of the allegations against a student, the Chief Student Affairs Official may take such immediate interim disciplinary action as is appropriate to the circumstances when such action is in the best interest of the institution. This includes but is not limited to a suspension and bar from the campus when it reasonably appears to the Chief Student Affairs Official the circumstances that the continuing presence of the student poses a potential danger to persons or property or
a potential threat for disrupting any activity authorized by the institution. In the event interim disciplinary action is taken, an expedited hearing will be offered in accordance with Section 5 below.

**Withholding Transcripts, Grades, and Degrees**

The Chief Student Affairs Official may also withhold the issuance of an official transcript, grade, diploma, certificate, or degree to a student alleged to have violated a rule or regulation of the U. T. System or the institutions that would reasonably allow the imposition of such sanction. The Chief Student Affairs Official may take such action pending a hearing, resolution by administrative disposition, and/or exhaustion of appellate rights if the Chief Student Affairs Official has provided the student an opportunity to provide a preliminary response to the allegations and in the opinion of the Chief Student Affairs Official, the best interests of the U. T. System or the institution would be served by this action.

**Challenging the Disciplinary Action**

1. In any case where the accused student elects not to dispute the facts upon which the charges are based and agrees to the sanctions the Chief Student Affairs Official assesses, the student may execute a written waiver of the hearing procedures specified in Section 5 immediately below. This administrative disposition shall be final and there shall be no subsequent proceedings regarding the charges.

2. In any case where the accused student elects not to dispute the facts upon which the charges are based, but does not agree with the sanctions assessed by the Chief Student Affairs Official, the student may execute a written waiver of the hearing procedures specified in Section 5 immediately below yet retain the right to appeal the decision of Chief Student Affairs Official only on the issue of penalty. The appeal regarding the penalty will be to the Dean of the school.

**Hearing Process**

In those cases in which the accused student disputes the facts upon which the charges are based, such charges shall be heard by the Dean of the school.

**Notice of Hearing**

Except in those cases where immediate interim disciplinary action has been taken, the accused student shall be given at least 10 days written notice of the date, time, and place for such hearing. The notice shall include a statement of the charge(s) and a summary statement of the evidence supporting such charge(s). The notice shall be delivered in person to the student or mailed to the student at the address appearing in the registrar’s records. A notice sent by mail will be considered to have been received on the third day after the date of mailing, excluding any intervening Sunday. The date for a hearing may be postponed by the Dean for good cause or by agreement of the student and Chief Student Affairs Official.

**Impartiality of the Dean**

The accused student may challenge the impartiality of the Dean. The challenge must be in writing, state the reasons for the challenge, and be submitted to the Dean through the Chief Student Affairs Official at least three days prior to the hearing. The Dean shall be the sole judge of whether he or she can serve with fairness and objectivity. In the event the Dean disqualifies himself or herself, a substitute will be chosen.

**Burden of Proof**

Upon a hearing of the charges, the Chief Student Affairs Official or other institutional representative has the burden of going forward with the evidence and has the burden of proving the charges by the greater weight of the credible evidence.

**Duties of the Dean**

The Dean is responsible for conducting the hearing in an orderly manner and controlling the conduct of the witnesses and participants in the hearing. The Dean shall rule on all procedural matters and on objections regarding exhibits and testimony of witnesses, may question witnesses, and is entitled to have the advice and assistance of legal counsel from the Office of General Counsel (http://www.utsystem.edu/ogc) of the System. The Dean shall render and send to the Chief Student Affairs Official and the accused student a written decision that contains findings of fact and a conclusion as to whether the accused student is responsible for the violations as charged. Upon a finding of responsibility the Dean shall assess a penalty or penalties specified in Section 6 immediately below. When an accused student is found responsible for the illegal use, possession, or sale of a drug or narcotic on campus, the assessment of a minimum penalty provided in Section 2.3 immediately above is required.

**Minimal Rights**

The hearing shall be conducted in accordance with procedures adopted by the institution that assure the institutional representative and the accused student the following minimal rights:

Each party shall provide the other party a list of witnesses, a brief summary of the testimony to be given by each, and a copy of documents to be introduced at the hearing at least five days prior to the hearing.

Each party shall have the right to appear, present testimony of witnesses and documentary evidence, cross-examine witnesses, and be assisted by an advisor of choice. The advisor may be an attorney. If the accused student’s advisor is an attorney, the Chief Student Affairs Official advisor may be an attorney from the Office of General Counsel (http://www.utsystem.edu/ogc) of the System. An advisor may confer with and advise the Chief Student Affairs Official or accused student, but shall not be permitted to question witnesses, introduce evidence, and make objections or present argument to the Dean.

The Chief Student Affairs Official may recommend a penalty to be assessed by the Dean. The recommendation may be based upon past practice of the institution for violations of a similar nature, the past disciplinary record of the student, or other factors deemed relevant by the Chief Student Affairs Official. The accused student shall be entitled to respond to the recommendation of the Chief Student Affairs Official.

The hearing will be recorded. If either party desires to appeal the decision of the Dean, the official record will consist of the recording of the hearing, the documents received in evidence, and the decision of the Dean. At the request of the Vice President of Academics, Faculty, and Student Affairs (Vice President) the recording of the hearing will be transcribed and both parties will be furnished a copy of the transcript.

**Penalties**

The following penalties may be assessed by the Chief Student Affairs Official pursuant to Section 4.3 immediately above or by the Dean after a hearing in accordance with the procedures specified in Section 5.5 immediately above:

- **Degrees:**
  - Withholding Transcripts, Grades, and
  - Challenging the Disciplinary Action
• Disciplinary probation.
• Withholding of grades, official transcript, and/or degree.
• Bar against readmission.
• Restitution or reimbursement for damage to or misappropriation of institutional or UT System property.
• Suspension of rights and privileges, including participation in athletic or extracurricular activities.
• Failing grade for an examination or assignment or for a course and/or cancellation of all or any portion of prior course credit.
• Denial of degree.
• Suspension from the institution for a specified period of time.
• Expulsion (permanent separation from the institution).
• Revocation of degree and withdrawal of diploma.
• Other penalty as deemed appropriate under the circumstances.

Appeal
A student may appeal a disciplinary penalty assessed by the Chief Student Affairs Official in accordance with Section 4.3 immediately above. Either the Chief Student Affairs Official or the student may appeal the decision of the Dean. An appeal shall be in accordance with the following procedures:

Appeal Procedures
The appealing party must submit a written appeal stating the specific reasons for the appeal and any argument, to the Vice President, with a copy to the other party. The appeal must be stamped as received by the Vice President’s office no later than 14 days after the appealing party has notified of the sanction assessed by the Dean. If the notice of sanction assessed by the Dean or the decision of the Dean is sent by mail, the date the notice or decision is mailed initiates the 14-day period for the appeal. The non-appealing party may submit a response to the appeal which must be received by the Vice President’s office no later than 5 days after receipt of the appeal with a copy to the other party. An appeal of the sanction assessed by the Chief Student Affairs Official in accordance with Section 4.4(b) immediately above will be reviewed solely on the basis of the written argument of the student and the Chief Student Affairs Official. The appeal of the decision of the Dean will be reviewed solely on the basis of the record from the hearing. Chief Student Affairs Official will submit the record from the hearing to the Vice President as soon as it is available. At the discretion of the Vice President, both parties may present oral argument in an appeal from the decision of the Dean.

Vice President’s Authority
The Vice President may approve, reject, or modify the decision in question or may require that the original hearing be reopened for the presentation of additional evidence and reconsideration of the decision. It is provided, however, that upon a finding of responsibility in a case involving the illegal use, possession, and/or sale of a drug or narcotic on campus, the sanction may not be reduced below the sanction as prescribed by Section 2.3 immediately above.

Communication of Decision
The action of the Vice President shall be communicated in writing to the student and the Chief Student Affairs Official within 30 days after the appeal and related documents have been received. The decision of the Vice President is the final appellate review.

Disciplinary Record
Each institution shall maintain a permanent written disciplinary record for every student assessed a sanction of suspension, expulsion, denial or revocation of degree, and/or withdrawal of diploma. A record of scholastic dishonesty shall be maintained for at least five years unless the record is permanent in conjunction with the above stated penalties. A disciplinary record shall reflect the nature of the charge, the disposition of the charge, the penalty assessed, and any other pertinent information. This disciplinary record shall be maintained by the Office of Chief Student Affairs Official. It shall be treated as confidential, and shall not be accessible to or used by anyone other than the Dean or university officials with legitimate educational interests, except upon written authorization of the student or in accordance with applicable State or federal laws or court order or subpoena.

General Education Core Curriculum Policy
It is the policy of the Health Science Center to evaluate all incoming students for completion of the Texas Core Curriculum who are not otherwise exempt. Pursuant to changes established by The Texas Higher Education Coordinating Board, the Health Science Center will establish a new Core specific to the academic needs and interests of the Health Science Center community. As of August 12, 2013, the new core was in the final stages of development, but still subject to approval from The THECB. Upon formal approval, the new core for the Health Science Center will be published on the website of the Office of the Registrar (http://students.uthscsa.edu) in addition to the online version of this Catalog. The new core will identify the foundational component areas and the credit hours required under each, with the foundational component areas including the following: Communication; Mathematics; Natural Sciences; Humanities; Visual/Performing Arts; U.S. History; Political Science; Social/Behavior Science. The policy will also provide the assessment plan for evaluating these foundational component areas for incoming applicants.

Smoking Policy
One mission of the Health Science Center is to promote public health. For this reason, all campus buildings and grounds of the University are smoke-free; smoking is not permitted outside buildings or anywhere inside buildings including private offices. No tobacco products will be sold on the campus either by the Health Science Center or outside vendors. By the nature of business of the Health Science Center, it is the responsibility of each individual employee to ensure that a healthy environment is provided by example and deed. Employee cooperation and support of this policy is essential to its success. The Handbook of Operating Procedures (http://www.uthscsa.edu/hop2000/8.2.4.pdf) address these matters as well.

Information Management Services (IMS)
Students can access their personal and academic information through the Health Science Center Internet Portal (http://inside.uthscsa.edu).

This secured site provides a variety of information for students including enrollment, financial aid, student account, features to update addresses and telephone numbers, check final grades, and options to restrict the release of personal information. For more information on the latter, see the FERPA Policy (p. 71) in this Catalog.

Each school has their own unique website for students to access syllabi and other course information, often utilizing Blackboard.
Unauthorized Distribution of Copyright Material


Details of the UT System and university policies regarding use of copyrighted materials may be found in the Handbook of Operating Procedures. For additional information, check the UT System’s Office of General Counsel home page (http://www.utsystem.edu/OGC).

Software Copyrights

Software piracy is a very serious issue. The following standards apply at the Health Science Center:

1. All software should be used only in accordance with the applicable software license agreements.
2. No faculty, staff, or student should make any unauthorized copies of any software under any circumstances.
3. The use of unauthorized copies of software on any university-owned equipment will not be tolerated.

It is not right to illegally copy software or to use illegal software. In addition to possible legal action by the holder of software copyrights, any faculty, staff, and/or student engaging in software piracy will be subject to university discipline up to and including termination.

If you are aware of any software misuse or infringement of copyright laws, notify the head of your department or the Office of Internal Audit and Consulting Services immediately.

Vehicles on Campus

University Police Department is responsible for enforcing Parking and Traffic Regulations that have been established by the President pursuant to the Rules and Regulations of the Board of Regents of the UT System, Rule 80109, as well as enforcement of Texas vehicle inspection laws for vehicles parking or driving on campus.
Dental School

Accreditation

All educational programs in the Dental School are accredited by the Commission on Dental Accreditation of the American Dental Association, a specialized accrediting agency recognized by the U.S. Department of Education. The Commission’s last site visit was in February 2012. All programs in the Dental School are currently accredited. The Commission on Dental Accreditation may be contacted by phone at 1-800-621-8098. The Commission is located at 211 East Chicago Avenue, Chicago, Illinois 60611.

Brief History

The Texas legislature created the University of Texas Health Science Center at San Antonio Dental School, a public institution, in 1969 with the first class entering in 1970. Located in the heart of the South Texas Medical Center, it is one of five Health Science Center schools. A leader in research activities, the Dental School also has strong clinical and didactic programs. Numerous research opportunities are available to students, and the interdisciplinary aspect of many research programs is regarded as one of the institution’s strengths. Clinical training occurs in the school’s clinics and University Hospital, as well as at various extramural sites in San Antonio and southern Texas. The Dental School also offers advanced education in all of the dental specialties, advanced training in general dentistry and a Bachelor of Science and Master of Science in Dental Hygiene. The Dental School is accredited by the Commission on Dental Accreditation. The school is situated in northwest San Antonio, the seventh largest city in the United States.

Mission

The Dental School mission is the acquisition, dissemination, and use of knowledge toward the enhancement of oral health. This mission is addressed through six interrelated action components: education, research, patient care, community, faculty and staff, and infrastructure.

As a component school of The UT Health Science Center San Antonio, the Dental School serves the citizens of the State of Texas, with particular emphasis on the South Texas community, and the nation by: educating oral health care providers and scientists, engaging in biomedical and clinical research to improve the oral health of the public, providing state-of-the-art patient care, enhancing community awareness of oral health issues and practices, and addressing health disparities among the population.

Vision

The University of Texas Health Science Center at San Antonio is committed to being a leading institution in four equally valued and interrelated activities: education, research, health care and community engagement. Success within our mission requires strategic integration of all disciplines across the University. We will promote our mission by recruiting and retaining world-class individuals, and striving for excellence, innovation, quality and professionalism. Our goal is to continue to be recognized as a highly accomplished and respected University and a valued asset to the community.

Core Values

To achieve our mission, the Health Science Center is committed to Excellence, Innovation, Integrity, Professionalism, Teamwork & Collaboration and Tradition.

Dental School Policies and Regulations

Academic Standards

The academic standards for successful completion and grade assignment shall be established by the department or task force under which the course is administered. In arriving at a final grade, consideration will be given to written, oral, and practical examinations as well as clinical performance when applicable. Non-cognitive factors such as performance under stress, integrity, initiative, interpersonal relations, and personal and professional characteristics will also be considered. A passing grade will not be awarded to a student whose performance in non-cognitive areas is unacceptable.

Grading Policy

Academic Standards

The academic standards for successful completion and grade assignment shall be established by the department or task force under which the course is administered. In arriving at a final grade, consideration will be given to written, oral, and practical examinations as well as clinical performance when applicable. Non-cognitive factors such as performance under stress, integrity, initiative, interpersonal relations, and personal and professional characteristics will also be considered. A passing grade will not be awarded to a student whose performance in non-cognitive areas is unacceptable.

The academic standards can be accessed on the Dental School intranet; and at the beginning of an academic year, all students will be reminded of their existence and location.

Grading

Final Grades

A final grade shall be reported after completion of a course as:

<table>
<thead>
<tr>
<th>Letter Grade</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Excellent</td>
</tr>
<tr>
<td>B</td>
<td>Good</td>
</tr>
<tr>
<td>C</td>
<td>Satisfactory</td>
</tr>
<tr>
<td>D</td>
<td>Poor</td>
</tr>
<tr>
<td>F</td>
<td>Failure in a graded course or failure to successfully complete an ungraded course</td>
</tr>
<tr>
<td>CR</td>
<td>Satisfactory completion of a required course for which no letter grade is given</td>
</tr>
<tr>
<td>EX</td>
<td>Exemption</td>
</tr>
<tr>
<td>I</td>
<td>Incomplete. Not a final grade. 1</td>
</tr>
<tr>
<td>Q</td>
<td>Course dropped with no penalty 2</td>
</tr>
<tr>
<td>WP</td>
<td>Withdrew Pending</td>
</tr>
<tr>
<td>WF</td>
<td>Withdrew Failing</td>
</tr>
</tbody>
</table>

1. The academic standards can be accessed on the Dental School intranet; and at the beginning of an academic year, all students will be reminded of their existence and location.

2. The academic standards can be accessed on the Dental School intranet; and at the beginning of an academic year, all students will be reminded of their existence and location.
This grade is assigned by the course director when the student’s reason for failure to satisfactorily complete all required work is acceptable. A grade of "I" must be corrected during the summer remediation period or by a specified time approved by the Academic Performance Committee.

Recorded when a course is dropped before first examination/grade assignment.

Credit Hours and Grade Point Average

One [1] semester hour credit is given for each:

- 16 clock hours of lecture or conference
- 48 clock hours of technique laboratory
- 64 clock hours of clinic

Grade point average is calculated in the standard manner with the following weight assigned to grades:

<table>
<thead>
<tr>
<th>Letter Grade</th>
<th>Grade Point Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>4</td>
</tr>
<tr>
<td>B</td>
<td>3</td>
</tr>
<tr>
<td>C</td>
<td>2</td>
</tr>
<tr>
<td>D</td>
<td>1</td>
</tr>
<tr>
<td>F</td>
<td>0</td>
</tr>
<tr>
<td>CR</td>
<td>Not used in calculation of GPA</td>
</tr>
</tbody>
</table>

Midyear Progress Reports

Final grades awarded at midyear will be submitted to the Registrar and the Associate Dean for Academic Affairs for each student enrolled in a course when that course has been completed.

Academic Warning

1. An academic warning is an official communication between the Associate Dean for Academic Affairs and the "at risk" student. Academic warning is a courtesy to the student, allowing for supportive dialog between the student and the Dental School’s administration.

2. Academic warning is offered only at midyear. A student will receive an academic warning from the Associate Dean for Academic affairs for achieving a grade point average less than 2.0 for either Group A or Group B courses completed during the fall semester.

3. An academic warning, unto itself, does not require prescribed action on the part of the student. It is desired that the student who has received an academic warning will correct midyear academic deficiencies by the end of the academic year.

Academic Probation

1. In addition to other reasons, a student receiving a final grade of "F" in a course at any time during the academic year will be placed on academic probation.

2. A student who is on academic probation is prohibited from graduation or promotion to the next academic year. Academic probation must be corrected, therefore, before the student may advance or graduate.

3. Unless the student is dismissed, a student will remain on academic probation until all academic deficiencies are corrected.

4. Once on academic probation, the student has a required timeline to improve his/her academic deficiencies. If not corrected in the prescribed amount of time, the student will be considered for dismissal.

5. Except for senior students, the Academic Performance Committee does not recommend actions for correction of academic deficiencies until the end of the academic year when the student’s entire academic record can be considered. For senior students, the Academic Performance Committee will recommend actions for correction of academic deficiencies as soon as it is notified that a senior has failed a course or has received an “I” grade.

6. Criteria

   A. A student will be placed on academic probation if s/he meets one or more of the following conditions:
      
      i. Receipt of a final "F" grade in any course at any time during the academic year.
      
      ii. Receipt of a GPA less than 2.0 in either Group A or Group B courses of a year’s curriculum, unless the student is dismissed.
      
      iii. Failure to pass National Board Dental Examinations, Part I by the end of the DSIII year.
      
      iv. Failure to pass National Board Dental Examinations, Part II by the end of the DSIV year.

7. Removal from Academic Probation Status

   A. A student is recommended for removal from academic probation once all academic deficiencies have been corrected. The Academic Performance Committee recommends specific methods for students to improve their academic records:
      
      i. The remediation of specific courses.
      
      ii. The repetition of the academic year in its entirety.
      
      iii. The establishment of an altered curriculum, to include correction of National Board deficiencies.

   B. A student no longer on academic probation is eligible for promotion to the next academic year or for graduation.

   C. If the student does not improve his/her academic record in the prescribed time period to allow removal from academic probation status, the student will be considered for dismissal.

Recommendations for Specific Academic Situations

1. Correction of an "F" Grade Deficiency. In an effort to help a student correct an "F" Grade Deficiency in one or more courses, the Academic Performance Committee may recommend one of the following courses of action:

   A. Remediation of the course or courses for which an "F" grade has been assigned. Since failure to successfully remediate places the student in a category for academic dismissal, a student may elect to repeat the academic year in its entirety even though remediation has been recommended.
3. Correction of National Board Dental Examination Deficiency

A. In an effort to help a student correct a National Board Dental Examination deficiency, the Academic Performance Committee may recommend completion of an altered curriculum which includes requirements for skills maintenance, preparation for retesting, and achievement of a passing grade in the National Board examinations.

B. The altered curriculum will be developed by the Associate Dean for Academic Affairs in conjunction with an Ad Hoc Committee appointed by the Academic Performance Committee.

C. Eligibility for promotion or graduation will be restored upon satisfactory completion of all requirements of the altered curriculum.

D. Failure to successfully complete all requirements of the altered curriculum by the end of the academic year will place the student in a category for academic dismissal.

E. Junior students who retake the National Board Dental Examinations, Part I, or any subset of the examination in the summer preceding their senior year, will register as juniors for the fall semester if the results of the examination are not known at the time of registration. Although they register as juniors, they will participate in senior didactic and clinical activities in the 1-3 week interval between registration and the time when the results of the examination are known.

F. Senior students enrolled in an altered curriculum who unsuccessfully retake the National Board Dental Examinations, Part 2, will be considered for dismissal.

4. Failure to Successfully Remediate or Repeat Year

A. The Academic Performance Committee will review the student’s academic record and consider any extenuating circumstances before making a recommendation for dismissal. Only in exceptional circumstances will the Academic Performance Committee recommend another correction program in lieu of dismissal. No student is allowed to repeat an academic year more than once.

5. Final Grade for Course Remediation/Repetition

A. A grade of "C" is the highest grade that can be achieved in the remediation of a course. Following remediation of a course, the grade assigned will be the grade ("C", "D" or "F") achieved by the student as set forth in the academic standards of the remediation course.

B. Following repetition of a course during repetition of an academic year in its entirety, the grade assigned will be the grade achieved by the student as set forth in the academic standards of the course.

C. All grades achieved by a student in a course (i.e. original, remediation, repetition) will appear on the official transcript but only the most recent grade achieved will be used in calculating the grade point averages.

D. Calculation of GPA Following Course Remediation or Repetition of the Year

i "F" Grade Deficiency [REMEDICATION]: The grade achieved by the student in remediation of an "F" grade in a course is the grade that will be used in calculating the Group A or Group B GPA for the academic year and the overall GPA; however, both grades for the course will appear on the final transcript.

ii "F" Grade Deficiency [REPETITION OF YEAR]: The grades achieved by the student in all courses in the repetition of the year in its entirety will be the grades used in calculating the Group A and Group B GPA’s for the academic year and the overall GPA; however, the previous grade or grades achieved in each course will also appear on the final transcript.
Dismissal

1. A student can be considered for dismissal from the School for academic deficiencies or violation of University regulations. The Academic Performance Committee is responsible for considering students for academic dismissal.

2. Academic Dismissal

   A. An option to appear before the Academic Performance Committee will be extended to the student before a vote is taken to recommend academic dismissal. The purpose of the appearance is to inform the Committee of extenuating circumstances which may have contributed to the student’s performance. The student may request that other appropriate verbal and/or written testimony regarding these circumstances be presented at this meeting. Only members of the Committee will be present when the vote for dismissal is taken.

   B. A student will be considered for academic dismissal if s/he meets any of the following conditions:

      i. Receipt of a GPA less than 2.0 in either Group A or Group B courses of the year’s curriculum.

      ii. Receipt of a GPA less than 2.0 in either Group A or Group B courses of the year’s curriculum after completing summer remediation or repetition of the academic year in its entirety.

      iii. Unsuccessful attempt to remediate a course or courses for which an “F” grade has been given.

      iv. Receipt of an “F” grade for a course or courses during the repeat of an academic year.

   C. National Board Deficiency

      i. Failure to successfully complete all the requirements of an altered curriculum designed to correct a National Board deficiency, which includes skills maintenance, preparation for retesting, and achievement of a passing grade in the National Board Dental Examination, Part I or Part II.

   D. Disciplinary Dismissal and Probation

      i. Violation of University regulations concerning standards of conduct which compromise professional integrity and/or competence will make a student eligible for dismissal. Procedures for dismissal will be governed by the guidelines contained in the Procedures and Regulations Governing Student Conduct and Discipline of the Health Science Center.

      ii. If not dismissed, a student may be placed on disciplinary probation. While on probation, any academic failure or professionalism relapse will be grounds for dismissal.

Faculty Responsibilities

1. It is the responsibility of the faculty to administer examinations in such a manner that student performance accurately reflects individual levels of knowledge and ability. Methods for achieving this objective may include:

   A. New exams each year with totally new, or majority of new questions, or similar questions but in a new format or with new distractors.

   B. Randomized assigned seating of students in lecture rooms or laboratories.

   C. Multiple forms of the same examination. (Three forms of the examination are recommended.)

   D. Oral or essay examinations or components of examinations.

2. It is the responsibility of every faculty member to be aware of and comply with the rules and regulations of the Health Science Center delineated in the procedures and regulations governing Student Conduct and Discipline. In carrying out their responsibility for ensuring fair examinations and honesty on the part of all students, the faculty must comply with the following policies on examinations:

   A. Proctor all written examinations. (Three or more are recommended.) Proctors shall be present and observant throughout the examination.

   B. Proctor all practical examinations. (Two or more faculty proctors are recommended for each Dental School MD multidiscipline laboratory — one for each bay.) Proctors should actively proctor throughout the examination and not engage in conversation with others, to avoid creating a distraction for students in the examination.

   C. Ensure that examinations are conducted in a quiet, comfortable atmosphere.

   D. Take immediate corrective action, as deemed necessary, to guarantee that the integrity of the examination is not compromised in case of observed violations of examination policies. Corrective action may include collecting examination papers or projects and/or relocating students.

   E. Report student misconduct or failure to follow instructions during examinations to the Course Director. If the misconduct falls under specific items in the course syllabus, the consequence as defined in the syllabus will be applied. If misconduct does not fall under specific items in the syllabus and is verified at the department level, it shall be reported
to the Associate Dean for Student Affairs in compliance with procedures and regulations governing Student Conduct and Discipline of the Health Science Center.

F. Schedule and conduct reexaminations whenever there is sufficient evidence to believe an examination has been compromised.

G. Maintain tight security during preparation, proofing, faculty review, printing, transporting, and storing of examinations. Examination questions stored on computer also must be protected from unauthorized access.

H. Ensure that students who ask questions during an examination are not given unfair advantage over other students if responses to questions are given. It is suggested that a policy be followed of not answering questions relative to interpretation of examination questions.

I. Identify casts, teeth, or other items to be used in practical examinations in a manner to preclude students from substituting items prepared prior to the examination.

J. Monitor students who need to leave the room during examination.

**Student Responsibilities**

1. It is the responsibility of every dental/dental hygiene student to be aware of and comply with rules and regulations of the Health Science Center delineated in the procedures and regulations governing Student Conduct and Discipline. In carrying out their responsibilities and ensuring fair examinations and honesty on the part of all students, students must follow these policies:

A. Except when specifically authorized to do so, students shall not use notes, books, manuals, models, audio tapes, or any other items or sources of information (cell phones, PDAs, pagers, or other electronic communication devices). During written examinations, such items must be left in a designated area of the examination room or, preferably, not brought into the room. During examinations in MD laboratories, these items shall be placed in closed cabinets.

B. Students shall not communicate with other students in any manner, i.e., verbally, in writing, by visual signals or code, etc., during written or practical examinations.

C. Before beginning an examination, students should be prepared to complete the examination. However, if a student must leave the room temporarily while an examination is in progress, the student’s examination materials shall be collected and held by a faculty proctor. Ordinarily, no more than one student will be permitted out of the examination at any one time. The student may not converse with another student or refer to reference material while out of the room.

D. If a student needs to do something outside the established protocol during a practical examination, such as unscrew or loosen a practical tooth or borrow an instrument, a proctor should be called for assistance and verification.

E. Students must refrain from all activities that detract from a quiet testing environment.

F. Students must take reasonable precautions to ensure that responses to examination questions or projects cannot be seen by other students.

G. Students must turn in their examination papers and practical examination projects promptly at the termination of an examination period, unless specifically instructed to do otherwise.

H. Students are expected to report any observed violation of these examination policies, or any other act they believe may compromise a fair examination process, to the Course Director or to the Associate Dean for Student Affairs.

I. Students are expected to maintain the highest integrity during the examination.

**Requests to Changes Schedule of Examinations**

The official dates and times of all examinations are published in the final Class Schedules after consultation with Course Directors and representatives of all classes. Students or the Course Director may initiate requests for changes in the schedule of examinations. All requests should be submitted to the Office of the Associate Dean for Academic Affairs/Dental Hygiene Division Director, as applicable.

A request to move an examination to a later date must be submitted at least two weeks prior to the original date of the examination. A request to move an examination to an earlier date must be submitted at least two weeks prior to the proposed date of the examination.

All requests for changes to the examination schedule published in the final Class Schedule must be accompanied by:

1. A written reason for the move that must be compelling and academically sound.

2. A written statement from the Course Director stating he/she is in agreement with the change.

3. The results (number of yes/no votes) of a secret ballot taken from all members of the class. The Associate Dean for Academic Affairs/Dental Hygiene Division Director, as applicable will review the request and can approve it if the following requirements are met:

4. The request has been submitted within the guidelines.

5. The reason for the move is valid.

6. The Course Director is in agreement with the move.

7. No member of the class present and voting opposes moving the examination to an earlier date; or, 90 percent of those voting are in favor of moving it to a later date.

8. An appropriate classroom is available at the proposed time.

**Academic Performance Committee**

Seven full-time faculty members with at least five having primary appointments in the Dental School are appointed to the committee. Absent voting members may not be represented by alternates.

The responsibility of this committee shall be to recommend to the Associate Dean for Academic Affairs appropriate action regarding the academic performance of students. Recommendations of this committee...
shall be based on established criteria set by the Faculty Council and may include promotion, academic warning, academic probation, an altered curriculum, remediation, repeat of the academic year or dismissal.

Chair – The Chair shall be appointed from the voting faculty members of the committee by the Associate Dean for Academic Affairs, with approval from the Dean. Vice-Chair - The Chair shall appoint a Vice-Chair from the voting faculty members of the committee. Secretary - The Chair shall appoint a Secretary to take Minutes of all meetings. The term of office shall be for three years. A member may serve no more than two consecutive terms.

Academic Grievance Policies

Due Process Grade Assignment Disagreement

A student wishing to appeal the assignment of a grade must submit her/his grievance to the Course Director within seven (7) days of the grade assignment. The appeal mechanism for challenging a grade is limited to: (1) possible clerical errors in calculating or recording a grade, or (2) allegation of mistakes or unfairness in application of the published academic standards in the assignment of a grade. It is the responsibility of the student to substantiate her/his assertion that an incorrect grade has been assigned.

If the student’s concerns are not resolved after a meeting with the Course Director, the student may submit a written appeal to the appropriate Department Chair. The written appeal must be made within seven days of the student’s meeting with the Course Director and must contain information to substantiate the assertion that an incorrect grade has been assigned.

If the disagreement is not resolved at the departmental level, the student may submit a written appeal to the Dean of the Dental School (http://dental.uthscsa.edu) within seven days of the departmental decision. If the Dean agrees to review the matter, he/she will review only that the appeal process was conducted appropriately. This Dental School policy supersedes any other grievance policies, and decisions made in this process are final.

Appeals Process

1. A student may appeal an Academic Performance Committee decision that recommends a) remediation, b) repetition of the year or c) academic dismissal. The student submits written notification of his/her desire to appeal to the Dean’s office. This written request must be received by the Dean’s office within 5 days following the student’s receipt of the written notification of the Academic Performance Committee’s recommendation.

2. The Dean will consult with appropriate individuals and render a decision to uphold or overturn the Academic Performance Committee decision. The student will receive written notification of the Dean’s decision.

3. Procedural appeal may be made to the President in accordance with Health Science Center Policy.

Student Concerns

Various mechanisms are available at all levels for student input regarding their concerns. Individuals and groups who respond to these concerns include course directors, advisors, associate dean for academic affairs, and the associate dean for student affairs. Procedures for grievances can be found in the General Section of the Catalog.

The president of the Student Body Organization meets bimonthly with presidents of other Health Science Center student groups to discuss problems or concerns affecting students in all schools with the university President. In addition, once a month, the Dean of the Dental School meets with the presidents of all classes. Student liaisons for each course will meet with the respective course director as needed.

Clinical Attire and Grooming

An excellent dental education is dependent on the number of patients and the diverse patient needs that allow students to provide a broad scope of oral health care to a large number of patients. As this is a totally voluntary system on the patient side, it is incumbent upon the dental school to provide an environment that gives patients the confidence to come to this institution knowing they will be treated in a professional manner, by professionals, and in a safe environment. To achieve this goal, first impressions are important; therefore, all students in the dental school need to look professional in dress and grooming since patient contact can occur in many areas of the building. When students have direct patient contact in the clinics, additional issues require students to pay particular attention to clinic attire and grooming because they affect patient safety as well as their own. The clinic manual is published on the Dental School Intranet site, http://dserver.uthscsa.edu/. The manual includes general guidelines for attire and grooming, as well as specific requirements that relate to patient and personal safety.

Class Attendance

Students are expected to attend and actively participate in all regularly scheduled classes, laboratories, and clinical periods. The policy regarding attendance and the consequences for failure to comply is the prerogative of the course director and the department responsible for that portion of the curriculum, and will be provided in the course syllabus at the beginning of each course. It is the responsibility of the student to arrange with the faculty for making up any work that is missed.

Absences may be considered sufficient cause for issuing failing grades in courses requiring attendance.

Reporting Absenteeism

When a student must be absent from the Dental School, he/she must report their absence online (https://fmogi.uthscsa.edu/absence/). The office will maintain a roster of absentees and the reported reasons for absence.

In cases of absence during an assigned rotation, all students (including freshmen and sophomores) are responsible for contacting appropriate Rotation Directors immediately.

Students who will be absent from any examination must notify their Course Directors directly as well as the Office of Student Affairs.

In cases of absence from clinic sessions, junior students must notify the Office of Clinical Affairs (210-567-3265). Senior students must notify the Office of Clinical Affairs and the Department of General Practice (210567-3450).

Students are responsible for contacting Course Directors upon their return to school to schedule required makeup work.
National Board Dental Examination Challenges

Part 1 – Students are eligible to challenge Part 1 of the boards at the completion of the spring semester of the sophomore year provided they successfully completed the fall General Pathology course. Students are expected to take the exam between the end of the spring semester and beginning of the fall semester of the junior year. The Dental School policy requires students to pass Part 1 to be considered for promotion to the senior year.

Part II – Students are eligible to challenge Part II of the boards in mid-November of the senior year and students are expected to take the exam in mid to late November or December of the senior year. The Dental School policy requires students to pass Part II to be considered for graduation.

For both Parts I and II, the National Board policies require students to wait 90 days between attempts. Additionally, candidates who have not passed Part I or Part II after three attempts are required to wait one year (12 months) after their third attempt to apply to retest.

Leave of Absence

Students in good academic standing who wish an extended leave of absence for extenuating physical or personal reasons must submit a written request to the Dean stating reasons for such a request, the period of time involved, and intentions concerning resumption of dental studies. The Dean will consider such requests on their individual merit.

Generally, a leave of absence shall not exceed one academic year. Any additional leaves of absence must be reviewed and recommended by the Academic Performance Committee and approved by the Dean. The Dean’s Office must be notified of intentions to re-enroll by the first day of April prior to the next academic year. Students who take a leave in the fall of the junior year will be required to repeat the sophomore year in order to regain the clinical skills and knowledge to provide patient care as a junior.

Upon approval, the student must request and complete a Student Clearance Form that is available from the Registrar’s Office (317L MED).

Readmission

Readmission to the freshman year requires that a student apply again according to the procedures required for first-time applicants and be accepted in competition with other applicants for that year. Readmission into the sophomore, junior, or senior years is contingent upon available space in the class.

Application for readmission after a leave of absence must be in the form of a written request to the Dean and must include satisfactory evidence that the condition or conditions necessitating the absence have been corrected and that the student is able to resume dental studies. The request must be submitted no later than April 1 of the year the student wishes to be reinstated.

The policies contained in this Catalog concerning attendance, leave of absence, and readmission is those in effect at the time of publication but is subject to change. Students are responsible for inquiring about changes each year.

Student Appeals and Grievances

Student appeals and grievances are handled through established policies and procedures for the Dental School as outlined in the General Regulations and Requirements section of this Catalog.

Applicant or Student Criminal Background Check Policy

Criminal Background Checks for Applicants and Students of the Dental School of The University of Texas Health Science Center at San Antonio.

I. Applicability

This policy applies to applicants or students enrolled in an educational program that includes, or may include at a future date, assignment to a clinical health care facility. Visiting students who enroll in courses with such an assignment are also subject to the policy. Presently, programs that require a background check include:

1. Doctor of Dental Surgery Students
2. Dental Hygiene Students
3. Advanced Dental Education Students

II. Policy

Effective immediately, applicants must submit to and satisfactorily complete a criminal background check review as a condition to admission into all programs designated as requiring a criminal background check. An offer of admission will not be final until the completion of the criminal background check(s) with results is deemed favorable. Admission may be denied or rescinded based on a review of the criminal background check.

Students who refuse to submit to a criminal background check or do not pass the criminal background check review may be dismissed from the program.

III. Rationale

1. Health care providers are entrusted with the health, safety and welfare of patients, have access to controlled substances and confidential information, and operate in settings that require the exercise of good judgment and ethical behavior. Thus, an assessment of a student or applicant’s suitability to function in such a setting is imperative to promote the highest level of integrity in health care services.

2. Clinical facilities are increasingly required by accreditation agencies, such as Joint Commission on Accreditation of Healthcare Organization (JCAHO), to conduct criminal background checks for security purposes on individuals who provide services within the facility and especially those who supervise care and render treatment. To facilitate this requirement, educational institutions have agreed to conduct these criminal background checks for students and faculty.

3. Clinical rotations are an essential element in certain curriculum programs. Students who cannot participate in clinical rotations due to criminal or other adverse activities that are revealed in a criminal background check are unable to fulfill the requirements of the program. Additionally, many healthcare licensing agencies require individuals to pass a criminal background check as a condition of...
licensure or employment. Therefore, it is in everyone's interest to resolve these issues prior to a commitment of resources by the Dental School, the student or applicant.

4. The Dental School is obligated to meet the contractual requirements contained in affiliation agreements between the university and the various healthcare facilities.

IV. Criminal Background Check Report

1. Obtaining a Criminal Background Check Report. The Dental School (http://dental.uthscsa.edu) will designate approved company(ies) to conduct the criminal background checks and issue reports directly to the Dental School. Results from a company other than those designated will not be accepted. Students and applicants must contact a designated company and comply with its instructions in authorizing and obtaining a background check. Students and applicants are responsible for payment of any fees charged by a designated company to provide the background check service.

2. Scope. Criminal background checks include the following and cover the past seven years:
   A. Criminal history search, including convictions, deferred adjudications or judgments, expunged criminal records, and pending criminal charges involving felonies, Class A, Class B, and Class C violations
   B. Social Security Number (http://www.ssa.gov/ssnumber) verification
   C. Violent Sexual Offender and Predator Registry (http://www.sexualoffenders.com/archive.php?type=2) search
   E. General Services Administration (GSA) (http://www.gsa.gov) List of Parties Excluded from Federal Programs
   G. Applicable State Exclusion List (Texas (https://oig.hhsc.state.tx.us/exclusions/search.aspx))

3. Rights. Students and applicants have the right to review the information reported by the designated company for accuracy and completeness and to request that the designated company verify that the background information provided is correct. Prior to making a final determination that will adversely affect the applicant or student, the Dental School will provide applicants or students a copy of or access to the criminal background check report issued by the designated company, and inform them of their rights, how to contact the designated company to challenge the accuracy of the report and that the designated company was not involved in any decisions made by the Dental School.

1. Applicants
   A. The criminal background check report will be submitted to the Associate Dean for Student Affairs for its review. If the report contains negative findings, the Associate Dean for Student Affairs may request that the applicant submit additional information relating to the negative finding, such as a written explanation, court documents and police reports. The Associate Dean for Student Affairs, in consultation with the Dental School administrative leadership team, will review all information available to it and determine whether the offer of admission should be withdrawn. For Advanced Education trainees, the background check report will be submitted to the Associate Dean for Student Affairs and Advanced Education Program director in the relevant Department. Advanced Education Programs will review the information and, with consultation of the Advanced Education Committee, will make determinations about amending admissions decisions.
   B. Admissions decisions are final and may not be appealed.

2. Committee Review Standards. In reviewing the background check reports and any information submitted, a committee may consider the following factors in making its determinations: the nature and seriousness of the offense or event, the circumstances surrounding the offense or event, the relationship between the duties to be performed as part of the educational program and the offense committed, the age of the person when the offense or event occurred, whether the offense or event was an isolated or repeated incident, the length of time that has passed since the offense or event, past employment and history of academic or disciplinary misconduct, evidence of successful rehabilitation, and the accuracy of the information provided by the applicant or student in the application materials, disclosure forms or other materials. The committee should bear in mind both the safety interests of the patient and the workplace, as well as the educational interest of the student. In reviewing background checks and supplementary information, advice may be obtained from university counsel, university police, or other appropriate advisors, including state regulating bodies such as licensing boards.

3. Deferment. A reviewing committee may extend an offer of admission for up to one year while the matter is resolved. However, the student may be granted permission to re-enroll in clinical lab section(s) only if space is available.

VI. Confidentiality and Record Keeping

1. Background check reports and other submitted information are confidential and may only be reviewed by university officials and affiliated clinical facilities in accordance with the Family Educational Records and Privacy Act (FERPA) (http://www.ed.gov/policy/gen/guid/fpco/ferpa).

2. Students. Criminal background check reports and other submitted information of students will be maintained in the Dental School (http://dental.uthscsa.edu) in accordance with the university’s record retention policy for student records.
3. **Applicants Denied Admission.** Criminal background check reports and other submitted information of applicants denied admission into the program will be maintained in accordance with the university’s record retention policy.

**VII. Other Provisions**

1. The Dental School (http://dental.uthscsa.edu) shall inform students who have negative findings in their background check report and are nonetheless permitted to enroll that the Dental School (http://dental.uthscsa.edu)’s decision is not a guarantee that every clinical facility will permit the student to participate in the educational program at its facility, or that any state will accept the individual as a candidate for registration, permit or licensure.

2. A criminal background check will be honored for the duration of enrollment if the student is continuously enrolled. A student who has a break in enrollment is required to complete a new criminal background check. A break in enrollment is defined as non-enrollment of at least one semester in the approved curriculum of the certificate or degree program. However, a student whose attendance has been suspended due to a licensing agency’s eligibility certification process will not be considered as having a break in enrollment. An officially approved leave of absence is not considered a break in enrollment.

3. Falsification of information, including omission of relevant information, may result in denial of admission or dismissal from the educational program.

4. Criminal activity, which occurs while a student is in attendance at the university, must be reported immediately by the student to the Dental School (http://dental.uthscsa.edu) administration. Criminal activity committed while in attendance and failure to report criminal activity that has occurred may result in disciplinary action, including dismissal, and will be addressed through the university’s academic or disciplinary policies.

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**Dental Surgery**

The Doctor of Dental Surgery (D.D.S.) degree is open to students who have completed at least 90 semester credit hours including all prerequisites at an undergraduate institution. Upon obtaining the degree, graduate may choose to apply for residency programs to specialize in a number of fields, or begin practicing in public or private settings.

**Accreditation**

All educational programs in the Dental School are accredited by the Commission on Dental Accreditation of the American Dental Association, a specialized accrediting agency recognized by the U.S. Department of Education. The Commission’s last site visit was in February 2012. All programs in the Dental School are currently accredited. The Commission on Dental Accreditation may be contacted by phone at 1-800-621-8098. The Commission is located at 211 East Chicago Avenue, Chicago, Illinois 60611.

**Brief History**

The Texas legislature created the University of Texas Health Science Center at San Antonio Dental School, a public institution, in 1969 with the first class entering in 1970. Located in the heart of the South Texas Medical Center, it is one of five Health Science Center schools. A leader in research activities, the Dental School also has strong clinical and didactic programs. Numerous research opportunities are available to students, and the interdisciplinary aspect of many research programs is regarded as one of the institution’s strengths. Clinical training occurs in the school’s clinics and University Hospital, as well as at various extramural sites in San Antonio and southern Texas. The Dental School also offers advanced education in all of the dental specialties, advanced training in general dentistry and a Bachelor of Science and Master of Science in Dental Hygiene. The Dental School is accredited by the Commission on Dental Accreditation. The school is situated in northwest San Antonio, the seventh largest city in the United States.

**Mission**

The Dental School (http://dental.uthscsa.edu) mission is the acquisition, dissemination, and use of knowledge toward the enhancement of oral health. This mission is addressed through six interrelated action components: education, research, patient care, community, faculty and staff, and infrastructure.

As a component school of The UT Health Science Center San Antonio (http://www.uthscsa.edu), the Dental School serves the citizens of the State of Texas, with particular emphasis on the South Texas community, and the nation by: educating oral health care providers and scientists, engaging in biomedical and clinical research to improve the oral health of the public, providing state-of-the-art patient care, enhancing community awareness of oral health issues and practices, and addressing health disparities among the population.

**Vision**

The University of Texas Health Science Center at San Antonio is committed to being a leading institution in four equally valued and interrelated activities: education, research, health care and community engagement. Success within our mission requires strategic integration of all disciplines across the University. We will promote our mission by recruiting and retaining world-class individuals, and striving for excellence, innovation, quality and professionalism. Our goal is to continue to be recognized as a highly accomplished and respected University and a valued asset to the community.

**Core Values**

To achieve our mission, the Health Science Center is committed to Excellence, Innovation, Integrity, Professionalism, Teamwork & Collaboration and Tradition.

**International Dentist Education Program (IDEP)**

The Dental School offers qualified graduates of foreign dental programs the opportunity to earn a Doctor of Dental Surgery (DDS) degree. Completion of this 2-year advanced standing educational program will allow graduates to take state or regional dental board examinations and be eligible for licensure and practice in the United States.

The IDEP is a full-time, daily program and consists of 2 months of didactic and preclinical laboratory training in the summer followed by matriculation through the 3rd and 4th years of the undergraduate dental program with classroom lectures and direct patient care in the group practices and departmental clinical courses and rotations. Students must complete the same requirements as all other dental students starting with year 3.
The application requirements for the IDEP are a dental degree from a foreign country; official, school-certified copies of transcripts; official course-by-course dental school transcript evaluation (ECE); a National Board Dental Examination Part I overall score of 80 (within the past 5 years); minimum Test of English as a Foreign Language (TOEFL) examination score of 92 (Internet-based) or 580 (paper-based); three letters of recommendation; and completion of personal statements about the applicant's clinical experience, dental-related activities, and professional goals.

- Information about admission and application requirements is detailed on the Dental School Web site: http://www.dental.uthscsa.edu/admissions/idep.html.

- Additional information about the IDEP can be obtained by contacting the IDEP office through e-mail at: IDEP@uthscsa.edu.

- *National Board Exams taken after January 1, 2012, will have scores reported as pass/fail. A passing score will be required for those applicants whose scores are reported as pass/fail.

**Doctor of Dental Surgery (DDS) Program Admissions Requirements**

Information about admission requirements is detailed on the Dental School website. Applicants must have at least 90 semester-hour credits from a U.S. or Canadian accredited college or university. Applicants are required to complete courses by the end of the spring semester before entering Dental School, and with a grade no lower than C.

**BIOLOGICAL SCIENCES**

- 14 semester hours (12 semester hours of lecture & 2 semester hours of formal lab) or 21 quarter hours (18 quarter lecture hours & 3 quarter lab hours) of Biological Science are required.
- Includes all Biological Science courses applied toward Baccalaureate degree in traditional science fields, such as General Biology, Biochemistry, Microbiology, Molecular Biology, Genetics, Ecology, Immunology, Parasitology and Anatomy & Physiology.

**GENERAL CHEMISTRY**

- 8 semester hours or 12 quarter hours of General Chemistry, as required for college science majors, including the corresponding laboratory experience are required. (8 semester hours = 6 hours of lecture & 2 hours of lab; 12 quarter hours = 9 hours of lecture & 3 hours of lab).
- Should include familiarity with analytic and volumetric techniques. Inorganic courses include General Chemistry, Physical Chemistry and Quantitative Analysis.

**ORGANIC CHEMISTRY**

- 8 semester hours or 12 quarter hours of Organic Chemistry, as required for college science majors, including the corresponding laboratory experience are required. (8 semester hours = 6 hours of lecture & 2 hours of lab; 12 quarter hours = 9 hours of lecture & 3 hours of lab).

**BIOCHEMISTRY**

- 3 semester hours or 5 quarter hours of Biochemistry is required. This requirement is in addition to the Biological Science requirement of 14 hours and may not be used to fulfill the Biological Science requirement. The course may be taught in the Biology, Biochemistry or Chemistry department. Must have a grade of C or better.

**PHYSICS**

- 8 semester hours or 12 quarter hours of Physics, as required for college science majors, including the corresponding laboratory experience are required. (8 semester hours = 6 hours of lecture & 2 hours of lab; 12 quarter hours = 9 hours of lecture & 3 hours of lab)
- Includes all physics courses applied toward a baccalaureate degree in any traditional science field.

**ENGLISH**

- 6 semester hours or 9 quarter hours of college English are required.
- Any course accredited by the English Department that fulfills a general education English requirement of a baccalaureate degree will be accepted. Remedial or developmental courses or “English As a Second Language” courses ARE NOT ACCEPTED.

**STATISTICS**

- 3 semester hours or 5 quarter hours of Statistics is required. The Statistics course should be taught in a Math or Statistics Department. Individual dental schools may consider statistics courses taught in other departments on an individual basis with appropriate documentation from faculty.

In addition to scholastic requirements for admission, all candidates are required to take the Dental Admission Test (DAT) and, must perform certain essential functions, as described at http://dental.uthscsa.edu/admissions/DDS_requirements.php. All applicants who are legal residents of Texas must apply through the Texas Medical and Dental Schools Application Service. Applications are available online at http://www.utsystem.edu/tmdsas. Applications are also accepted from the American Association of Dental Schools Application Service (AADSAS) for non-Texas residents. AADSAS applications can be found online (https://portal.aadsasweb.org).

**Deposit Fee for Admitted Applicants**

The Dental School assesses a deposit fee of $60 for admitted applicants wishing to secure their spot in the entering class. The deposit is non-refundable.

**Applicant or Student Criminal Background Check Policy**

Criminal Background Checks for Applicants and Students of the Dental School of The University of Texas Health Science Center at San Antonio.

I. Applicability

This policy applies to applicants or students enrolled in an educational program that includes, or may include at a future date, assignment to a clinical health care facility. Visiting students who enroll in courses with such an assignment are also subject to the policy. Presently, programs that require a background check include:
1. Doctor of Dental Surgery Students
2. Dental Hygiene Students
3. Advanced Dental Education Students

II. Policy

Effective immediately, applicants must submit to and satisfactorily complete a criminal background check as a condition to admission into all programs designated as requiring a criminal background check. An offer of admission will not be final until the completion of the criminal background check(s) with results is deemed favorable. Admission may be denied or rescinded based on a review of the criminal background check.

Students who refuse to submit to a criminal background check or do not pass the criminal background check review may be dismissed from the program.

III. Rationale

Health care providers are entrusted with the health, safety and welfare of patients, have access to controlled substances and confidential information, and operate in settings that require the exercise of good judgment and ethical behavior. Thus, an assessment of a student or applicant’s suitability to function in such a setting is imperative to promote the highest level of integrity in health care services.

Clinical facilities are increasingly required by accreditation agencies, such as Joint Commission on Accreditation of Healthcare Organization (JCAHO), to conduct criminal background checks for security purposes on individuals who provide services within the facility and especially those who supervise care and render treatment. To facilitate this requirement, educational institutions have agreed to conduct these criminal background checks for students and faculty.

Clinical rotations are an essential element in certain curriculum programs. Students who cannot participate in clinical rotations due to criminal or other adverse activities that are revealed in a criminal background check are unable to fulfill the requirements of the program. Additionally, many healthcare licensing agencies require individuals to pass a criminal background check as a condition of licensure or employment. Therefore, it is in everyone’s interest to resolve these issues prior to a commitment of resources by the Dental School, the student or applicant.

The Dental School is obligated to meet the contractual requirements contained in affiliation agreements between the university and the various healthcare facilities.

IV. Criminal Background Check Report

1. Obtaining a Criminal Background Check Report. The Dental School will designate approved company(ies) to conduct the criminal background checks and issue reports directly to the Dental School. Results from a company other than those designated will not be accepted. Students and applicants must contact a designated company and comply with its instructions in authorizing and obtaining a background check. Students and applicants are responsible for payment of any fees charged by a designated company to provide the background check service.

2. Scope. Criminal background checks include the following and cover the past seven years:

   A. Criminal history search, including convictions, deferred adjudications or judgments, expunged criminal records, and pending criminal charges involving felonies, Class A, Class B, and Class C violations
   B. Social Security Number verification
   C. Violent Sexual Offender and Predator Registry search
   D. Office of the Inspector General (OIG) List of Excluded Individuals/Entities
   E. General Services Administration (GSA) List of Parties Excluded from Federal Programs
   F. U.S. Treasury, Office of Foreign Assets Control (OFAC), List of Specially Designated Nationals (SDN)
   G. Applicable State Exclusion List (Texas)
   H. Office of Homeland Security information/report

3. Rights. Students and applicants have the right to review the information reported by the designated company for accuracy and completeness and to request that the designated company verify that the background information provided is correct. Prior to making a final determination that will adversely affect the applicant or student, the Dental School will provide applicants or students a copy of or access to the criminal background check report issued by the designated company, and inform them of their rights, how to contact the designated company to challenge the accuracy of the report and that the designated company was not involved in any decisions made by the Dental School.

V. Procedure

1. Applicants

   a. The criminal background check report will be submitted to the Associate Dean for Student Affairs for its review. If the report contains negative findings, the Associate Dean for Student Affairs may request that the applicant submit additional information relating to the negative finding, such as a written explanation, court documents and police reports. The Associate Dean for Student Affairs, in consultation with the Dental School administrative leadership team, will review all information available to it and determine whether the offer of admission should be withdrawn. For Advanced Education trainees, the background check report will be submitted to the Associate Dean for Student Affairs and Advanced Education Program director in the relevant Department. Advanced Education Programs will review the information and, with consultation of the Advanced Education Committee, will make determinations about amending admissions decisions.

   b. Admissions decisions are final and may not be appealed.

2. Committee Review Standards. In reviewing the background check reports and any information submitted, a committee may consider the following factors in making its determinations: the nature and seriousness of the offense or event, the circumstances surrounding the offense or event, the relationship between the duties to be performed as part of the educational program and the offense committed, the age of the person when the offense or event occurred, whether the offense or event was an isolated or repeated incident, the length of time that has passed since the offense or event, past employment and history of academic or disciplinary
misconduct, evidence of successful rehabilitation, and the accuracy of the information provided by the applicant or student in the application materials, disclosure forms or other materials. The committee should bear in mind both the safety interests of the patient and the workplace, as well as the educational interest of the student. In reviewing background checks and supplementary information, advice may be obtained from university counsel, university police, or other appropriate advisors, including state regulating bodies such as licensing boards.

3. **Deferment.** A reviewing committee may extend an offer of admission for up to one year while the matter is resolved. However, the student may be granted permission to re-enroll in clinical lab section(s) only if space is available.

**VI. Confidentiality and Record Keeping**

1. Background check reports and other submitted information are confidential and may only be reviewed by university officials and affiliated clinical facilities in accordance with the Family Educational Records and Privacy Act (FERPA) (http://www.ed.gov/policy/gen/guid/fpco/ferpa).

2. **Students.** Criminal background check reports and other submitted information of students will be maintained in the Dental School (http://dental.uthscsa.edu) in accordance with the university’s record retention policy for student records.

3. **Applicants Denied Admission.** Criminal background check reports and other submitted information of applicants denied admission into the program will be maintained in accordance with the university’s record retention policy.

**VII. Other Provisions**

1. The Dental School (http://dental.uthscsa.edu) shall inform students who have negative findings in their background check report and are nonetheless permitted to enroll that the Dental School (http://dental.uthscsa.edu)’s decision is not a guarantee that every clinical facility will permit the student to participate in the educational program at its facility, or that any state will accept the individual as a candidate for registration, permit or licensure.

2. A criminal background check will be honored for the duration of enrollment if the student is continuously enrolled. A student who has a break in enrollment is required to complete a new criminal background check. A break in enrollment is defined as non-enrollment of at least one semester in the approved curriculum of the certificate or degree program. However, a student whose attendance has been suspended due to a licensing agency’s eligibility certification process will not be considered as having a break in enrollment. An officially approved leave of absence is not considered a break in enrollment.

3. Falsification of information, including omission of relevant information, may result in denial of admission or dismissal from the educational program.

4. Criminal activity, which occurs while a student is in attendance at the university, must be reported immediately by the student to the Dental School (http://dental.uthscsa.edu) administration. Criminal activity committed while in attendance and failure to report criminal activity that has occurred may result in disciplinary action, including dismissal, and will be addressed through the university’s academic or disciplinary policies.

**Dual Degree Programs**

Dual degree programs of study at the UT Health Science Center (http://www.uthscsa.edu) provide a mechanism for medical or dental students to obtain an M.S. or Ph.D. degree in addition to an M.D. or D.D.S. The purpose of these programs is to develop clinical scientists who have depth of knowledge in clinical medicine or dentistry and basic sciences, and also experience in research planning and execution. Such scientists are therefore exceptionally qualified to apply specialized research competence to the resolution of clinical problems.

A student who wishes to obtain both a D.D.S. and a Ph.D. must obtain the entrance prerequisites of both the Dental School (http://dental.uthscsa.edu) and the Graduate School of Biomedical Sciences (http://gsbs.uthscsa.edu). Students submit applications for admission to the Dual Degree Program through the Texas Medical and Dental Schools Application Service (http://www.utsystem.edu/tmdsas) and to the Health Science Center (http://www.uthscsa.edu) Graduate School of Biomedical Sciences (http://gsbs.uthscsa.edu) during the fall prior to attendance. Approval for admission is made by the DDS/PhD Admissions Review Panel (through the Dental School Dean and Associate Dean for Student Affairs) and by the Graduate School of Biomedical Sciences.

Accepted applicants must meet the full requirements defined for both the professional and the graduate degree. The total time for the dual degree program curriculum is designed to be at least six years. However, utilization of summer sessions and elective periods is mandatory for this total time span. Students accepted into the DDS/PhD program will be required to reapply to Dental School (http://dental.uthscsa.edu).

The detailed logistics of pursuing a dual degree program will depend on the specific graduate program undertaken and, in every instance, should be worked out among the student, the appropriate Committee on Graduate Studies, the faculty mentor, the Associate Dean of the Graduate School of Biomedical Sciences, and the Associate Deans for Academic Affairs and Research of the Dental School (http://dental.uthscsa.edu).

**International Dentist Education Program (IDEP)**

The Dental School offers qualified graduates of foreign dental programs the opportunity to earn a Doctor of Dental Surgery (DDS) degree. Completion of this 2-year advanced standing educational program will allow graduates to take state or regional dental board examinations and be eligible for licensure and practice in the United States.

The IDEP is a full-time, daily program and consists of 2 months of didactic and preclinical laboratory training in the summer followed by matriculation through the 3rd and 4th years of the undergraduate dental program with classroom lectures and direct patient care in the group practices and departmental clinical courses and rotations. Students must complete the same requirements as all other dental students starting with year 3.

The application requirements for the IDEP are a dental degree from a foreign country; official, school-certified copies of transcripts; official course-by-course dental school transcript evaluation (ECE); a National Board Dental Examination Part I overall score of 80 (within the past 5 years); minimum Test of English as a Foreign Language (TOEFL) examination score of 92 (Internet-based) or 580 (paper-based); three letters of recommendation; and completion of personal statements about the applicant’s clinical experience, dental-related activities, and professional goals.
• Information about admission and application requirements is detailed on the Dental School Web Site (http://www.dental.uthscsa.edu/admissions/id ep.html).

• Additional information about the IDEP can be obtained by contacting the IDEP office through e-mail at: IDEP@uthscsa.edu.

• *National Board Exams taken after January 1, 2012, will have scores reported as pass/fail. A passing score will be required for those applicants whose scores are reported as pass/fail.

Doctor of Dental Surgery (DDS) Degree Requirements

Standards for promotion and graduation

A. The degree of Doctor of Dental Surgery is awarded by the Board of Regents upon recommendation of the faculty to the Dean, and certification by the Dean to the President. Candidates must have satisfactorily fulfilled the academic requirements of the dental curriculum, have a cumulative GPA of 2.0 or above, have passed Part II of the National Board Dental Examinations, be in good professional standing, and comply with all necessary legal and financial requirements.

B. Candidates for the degree must have fulfilled all requirements within six years* of registering in the freshman class. Approved leaves of absence will not be included in this time period.

PROMOTION

A. Recommendation for promotion to the next year of the curriculum is made by the Academic Performance Committee. A student will be recommended for promotion to the next year of the curriculum if a grade-point average of 2.0 or above is achieved in both the Group A* and Group B** courses of the year’s curriculum and a passing grade has been achieved in all courses in the year’s curriculum. Promotion to the senior year also requires having passed the National Board Dental Examination, Part I.

  * Group A - all basic science and dental didactic courses
  ** Group B - all pre-clinical laboratory and clinic courses

Doctor of Dental Surgery (DDS) Sample Plan of Study

The overall curriculum consists of approximately 4,500 hours of educational opportunities over a four-year program. The curriculum consists of fall and spring semesters in each of the four years with separate ‘summer’ sessions as part of the spring semester, between years 1 and 2, 2 and 3, and between years 3 and 4. The Dental School curriculum is extensively hands-on with students receiving more than 2,000 hours of patient care learning experiences including a substantial number of hours providing patient care in community-based clinics. Approximately 75% of the curriculum is devoted to the diagnosis and treatment of oral diseases. 18% is devoted to underlying and foundational biomedical principles with emphasis on the pathophysiology of dental diseases and medical disorders that have oral manifestations, and 7% of the curriculum addresses practice management and public health. The four-year curriculum continuum is designed to provide dental students with a progressive learning experience in four phases that evolves from: (1) the biomedical foundations of normal human function, to (2) analysis of the causes and presentation of abnormalities, to (3) acquisition of skills needed for patient assessment and performance of procedural tasks, to (4) supervised provision of patient care in Dental School clinics and affiliated community sites.

The following section reviews the focus of each year in the curriculum.

Freshman Year

As a fundamental building block for all competencies, students are introduced to the ethical principles for all health care providers, and students learn the biomedical foundations of normal human structure and function moving from cellular, to gross tissues, to organ systems. Students also acquire the clinical foundations needed for competency in patient assessment including radiological techniques and physical examination methods. Students develop skills in oral health risk assessment and prevention and begin their study of periodontal disease and therapy that prepares them for competency in these important aspects of dental practice. An important component of the freshman year is the students’ introduction to the perceptual and fine-motor skills needed for competency in many types of dental therapy. First-year students are introduced to the clinical environment, including community-based preventive dentistry rotations, and acquire clinical support skills that allow them to serve as assistants to upper class students.

The summer between the freshman and sophomore year allows students to enrich their education with selectives and clinical rotations. A minimum of one selective course is required.

Sophomore Year

Second-year students analyze the causes and clinical presentations of oral abnormalities and diseases of the major organ systems that have implications for dental care that provides the groundwork for competency in patient evaluation and diagnosis. A major focus of the sophomore year is development of procedural skills in preclinical simulation laboratories. Second-year students assist upper class students in the clinic and receive additional experience in patient evaluation, activities that prepare them for the junior year clinical experience. Specific preclinical skills examinations, linked to various patient care competencies, must be successfully completed to certify that students are ready for progression to the clinical phase of the curriculum.

The summer between the sophomore and junior year allows students to enrich their education with selectives and clinical rotations. A minimum of one selective course is required.

Junior Year

The third year of the curriculum has a strong clinical focus as students apply the knowledge, skills, and values acquired in the freshman and sophomore years to the oral health care of patients. Junior students join one of eight General Group Practices (GPGs) and remain in a GPG during their 3rd and 4th years of dental school. A team of faculty guides each GPG and work closely with students in their group to provide hands-on coaching and feedback. The GPGs provide students with an environment where they have continuous contact with a small group of instructors and also provides a forum for case conferences, student reports, faculty demonstrations and case reviews, and other learning activities to enrich the students’ clinical education. Learning experiences, derived from the process of patient assessment and treatment, are orchestrated to facilitate students’ acquisition of many of the 20 curriculum competencies that are evaluated by faculty assessment of students’ daily interaction with patients.
and performance on formal competency examinations where students provide patient care independent of faculty assistance.

Students also receive focused instruction and patient care experiences during discipline-specific rotations in the junior year; each rotation must be passed to progress to the senior year. An important component of the GPG experience is evaluation of students’ professionalism, which occurs via the Patient Management course. Students cannot progress to the senior year if they are found to be deficient in professionalism and consequently fail the Patient Management course. Additional information about this course appears in the junior year course descriptions.

Summer Session between Years 3 and 4

The summer between the junior and senior years allows students to enrich their education with selectives and clinical rotations. A minimum of a two-week clinical selective is required for all students except those who enroll in a full summer research selective. Students may continue selectives into the senior year.

Senior Year

Students continue their focus on acquisition of clinical competency through extensive patient care experiences within the GPG framework as previously described. Seniors are expected to demonstrate increasing capacity for independent functioning with less reliance on GPG faculty for guidance and assistance. Through the patient assignment function of the GPGs, seniors receive opportunities to provide care for patients with a wider variety of oral health needs and to treat dental problems that are more complex. To enrich and diversify their education, seniors participate in focused rotations in general dentistry, pediatric dentistry, and oral surgery at various community locations. Student evaluation in the senior year is based on several sources including: performance on exams that measure progress toward competency; daily assessment of patient care quality by supervising faculty; acceptable clinic utilization; a single grade at the end of the year is given for courses that extend through both semesters.

Below is a representative list of courses per year and credit hours that students must successfully complete. This list is subject to change based on changes recommended by the faculty to enhance student learning or to better meet the CODA (Commission on Dental Accreditation) or SACS (Southern Association of Colleges and Schools) Standards.

Sample Plans of Study

Freshman Year-Group A

<table>
<thead>
<tr>
<th>Course Title</th>
<th>Semester I Units</th>
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<tr>
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<tr>
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<tr>
<td>RESD 5004 Dental Anatomy &amp; Occlusion ¹</td>
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<tr>
<td>COMD 5017 Oral Health Promotion &amp; Disease Prevention For Individuals &amp; Populations</td>
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Freshman Year-Group B

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<tr>
<td>INTD 5030 Introduction To Patient Care ¹</td>
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Sophomore Year-Group A

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<tr>
<td>INTD 6010 Evidence Based Dentistry</td>
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<td>ORTH 6077 Growth &amp; Development</td>
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<tr>
<td>OSUR 6056 Local Anesthesia</td>
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<td>OSUR 6140 Nitrous Oxide</td>
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<td>PATH 6019 General Pathology</td>
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<td>PERI 6082 Periodontics ¹</td>
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<td>PROS 6011 Prosthodontic Treatment For The Dentate/Partially Dentate Patient ¹</td>
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RESD 6001 Operative Dentistry 1 2.5
RESD 6102 Biomaterials 2 1
COMD 6048 Patient-Centered Oral Health Care: Behavioral, Social, & Cultural Dimensions
DIAG 6011 Clinical Medicine
DIAG 6035 Physical Evaluation 2 1.5
ENDO 6041 Endodontics Lecture
GEND 6001 Professional Development 2 1
ORTH 6075 Sophomore Orthodontic Lectures
OSUR 6051 Oral Surgery 1
PATH 6021 Oral Pathology 1
PERI 6082 Periodontics 1
PROS 6011 Prosthodontic Treatment For The Dentate/Partially Dentate Patient 1
PROS 6059 Implant Pros Treatment Lecture 0.5
PROS 6094 Removable Prosthodontics for the Partially Endentulous Patient 2
RESD 6001 Operative Dentistry 1
RESD 6102 Biomaterials 2 1
RESD 6108 Temporomandibular Disorders
Total Units in Sequence: 38.5

Sophomore Year-Group B

Second Year

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<tr>
<td>RESD 6002 Preclinical Operative Dentistry 1</td>
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Total Units in Sequence: 38.5

A single grade at the end of the year is given for courses that extend through both semesters.

Junior Year-Group A

Third Year

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<tr>
<th>Units</th>
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<td>DIAG 7036 Radiographic Interpretation 1</td>
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<td>DIAG 7055 Oral Medicine 1</td>
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<tr>
<td>ENDO 7041 Junior Endodontics Lecture</td>
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<tr>
<td>GEND 7026 Practice Administration 1</td>
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<td>ORTH 7073 Junior Orthodontic Lectures And Case Analysis 1</td>
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<td>PEDO 7041 Pediatric Dentistry Lecture</td>
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</tr>
<tr>
<td>PERI 7059 Implantology 1</td>
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<td>COMD 7031 Professional Ethics</td>
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<tr>
<td>DIAG 7055 Oral Medicine 1</td>
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<tr>
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<tr>
<td>ORTH 7073 Junior Orthodontic Lectures And Case Analysis 1</td>
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<tr>
<td>PATH 7023 Oral &amp; Maxillofacial Pathology: Clinicopathologic Conference</td>
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<td>PERI 7059 Implantology</td>
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<td>PROS 7018 Fixed Prosthodontics 1</td>
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<td>PROS 7091 Removable Partial Denture Prosthodontics Lecture 1</td>
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<td>Total Units in Sequence: 17.5</td>
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Junior Year-Group B

Third Year

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<tr>
<th>Units</th>
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<tr>
<td>COMD 7050 Preventive Dentistry Clinic 1</td>
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<td>ENDO 7043 Endodontics Clinic 1</td>
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<td>INTD 7020 Clinical Patient Management 1</td>
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<td>PROS 7019 Fixed Prosthodontics Clinic 1</td>
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Junior Clinic Rotations

All junior dental students enhance their clinical experiences by participating in several Dental School and off-campus required clinical rotations including the following. These are subject to change based on community availability:

- Oral Surgery
- Dental Emergency
- Geriatrics
- Pediatric Dentistry
- Periodontics

Senior Year-Group A

Fourth Year

<table>
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<tr>
<th>Course</th>
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<tbody>
<tr>
<td>COMD 8014 Oral Health Care System</td>
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<tr>
<td>COMD 8032 Jurisprudence</td>
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<tr>
<td>ENDO 8043 Senior Endodontics Lecture</td>
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<tr>
<td>GEND 8026 Practice Administration¹</td>
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<tr>
<td>GEND 8078 General Dentistry Seminar¹</td>
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<tr>
<td>OSUR 8055 Advanced Oral &amp; Maxillofacial Surgery</td>
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<tr>
<td>PERI 8015 Periodontics</td>
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<td>PHAR 8009 Pharmacotheapeutics</td>
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<td>RESD 8051 Senior Esthetic Dentistry</td>
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Total Units in Sequence: 32

¹ A single grade at the end of the year is given for courses that extend through both semesters.

Senior Year-Group B

Fourth Year

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<tr>
<th>Course</th>
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<tbody>
<tr>
<td>GEND 8077 General Dentistry Clinic¹</td>
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Total Units in Sequence: 26.5

¹ A single grade at the end of the year is given for courses that extend through both semesters.

Senior Clinical Rotations

All senior dental students enhance their clinical experiences by participating in several Dental School and off-campus required clinical rotations including the following. These are subject to change based on community availability:

- Dental Emergency
- Dental Hygiene
- Oral Medicine
- Oral Surgery
- Pediatric Dentistry
- Primary Dental Care - South Texas Rotation
- Primary Dental Care – SACDC at Haven for Hope

Dental Selectives

The Dental School has a selective program that allows students to enrich their education through courses of their choosing.

Satisfactory completion of selectives will be recorded on the transcript as CR. No credit hours will accrue, and the computation of the GPA will be unaffected. When a student has been officially enrolled in a selective course, the selective becomes a mandatory part of the student’s curriculum and must be completed unless proper procedures for withdrawal are followed. Failure to withdraw properly or unsuccessful completion of the selective will be recorded on the transcript as an F grade. This will be treated by the Academic Performance Committee as any other failing grade in any required course.

Selective courses are offered primarily in the summer, but many are year-round by arrangement. Courses are offered to all level of students. Rising DS2 and DS3 students are required to complete a minimum of one selective. Rising DS4 students are required to complete a two-week continuous clinical selective, a six-week research selective, or another approved plan. The two-week selective may be one of the following:

- South Texas Rotation
- General Practice Dental Emergency Care (DECC)
- Oral and Maxillofacial Surgery
- Pediatric Dentistry Summer Selective

Current selectives are listed below; however, offerings may vary each year. An updated list is sent to students twice a year to allow them to plan ahead. The list with course descriptions, teacher, location, etc. can be found online at http://dental.uthscsa.edu/educprograms/DDS_curriculum.php.
Dental School (DDS) Objectives/Program Outcomes

• The Doctor of Dental Surgery Degree (D.D.S.) at The University of Texas Health Science Center at San Antonio Dental School prepares graduates to practice evidence-based general dentistry in an ethically, socially and professionally responsible manner to improve the oral health of society.

• Students will be able to provide oral health care within the scope of general dentistry, demonstrate the capacity to lead oral health care teams and collaborate with other health care providers.

• Students will be able to manage the oral health care of infants, children, adolescents and adults, the unique needs of women, the elderly and patients with physical, cognitive, emotional or development challenges.

• Students will be able to integrate biomedical knowledge, best quality research, clinical expertise and patient values to provide evidence-based oral health care, including critical appraisal of new treatment methods.

• Students will be able to provide ethically and socially responsible oral health care in compliance with the laws and regulations governing the practice of dentistry, and use psychosocial, behavioral and patient centered approaches to provide oral health care for diverse patient populations within contemporary models of health care delivery and in multi-cultural work environments.

Program Policies

Dental Science

Master of Science in Dental Science

Postdoctoral dental studies at the University of Texas Health Science Center at San Antonio consist of specialty certificate programs, graduate degree programs, and residencies. The Master of Science degree program is directed toward providing extensive training and development of well-trained clinicians, leading edge critical thinkers in evidence-based decision making with the education and background in basic scientific and research methodology. The interdisciplinary education across dental specialties supports a high level, postdoctoral professional education environment. The Master of Science in Dental Science is administered by the Dental School and conferred by the Graduate School of Biomedical Sciences.

The Master of Science in Dental Science students admitted to the Graduate School of Biomedical Sciences are students in an Advanced Education Program in Endodontics, Dental Diagnostic Science, Periodontics, or Prosthodontics. The four tracks are administered by Program Directors in accordance and with recognition by the ADA Commission on Dental Accreditation. (Refer to admissions guidelines as listed for the specific specialty program track) The M.S. in Dental Science degree program is based on a core curriculum that accounts for approximately 68-74% of each of the specialty Track options, as part of the total Master of Science curriculum credit hours. The remaining credit hours are designated to follow educational tracks within specialty, discipline areas.

At the completion of the program, the student will:

• Apply fundamentals of scientific inquiry through development of a research question.

• Apply research methodology through management of a research protocol, data collection, and data analysis.

• Apply skills in review of the scientific literature to synthesize a concept based on best available evidence.

• Interpret basic statistical analyses in scientific literature and in protocol design

• Defend and discuss application of research protocol through data interpretation of scientific results.

Core Curriculum: Master of Science in Dental Science

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<td>INTD 5090</td>
<td>Grad Research Methodology</td>
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<td>PATH 5121</td>
<td>Biostatistics</td>
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<td>INTD 5021</td>
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<td>INTD 5157</td>
<td>Research 1- Project Proposal</td>
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<td>INTD 5257</td>
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Dental Diagnostic Sciences

Oral & Maxillofacial Radiology

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<td>Basic Principles Of Oral And Maxillofacial Imaging</td>
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<td>DIAG 5015</td>
<td>Panoramic Radiology (Fall PGI)</td>
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<td>DIAG 5026</td>
<td>Diagnostic Imaging Of The Jaws Part 1 (Fall PGI)</td>
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<td>DIAG 5036</td>
<td>Diagnostic Imaging of Jaws Pt. 2</td>
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Dental Diagnostic Sciences Admissions Requirements

• DDS or DMD degrees from USA or Canada are preferred. All others will be considered and are encouraged to apply

• Minimum of 1 year experience in general practice residency or in general practice is required

• Deadline to apply: November 1st of each year for the following year's matriculating class. Application materials include:

  • Completed application

  • Three letters of recommendation
• Original transcripts from all the schools attended. In addition, international applicants must have transcripts evaluated by evaluation firms such as ECE or WES including GPA calculations. All transcripts and evaluation reports must be received prior to application deadline
• GRE and TOEFL scores are required for international applicants.
• GRE scores are mandatory for the Master’s program and must be received prior to the application deadline
• National board scores, if available

Dental Diagnostic Sciences Degree Requirements
Certificate program – completion of 30 months
Master’s program – completion of 36 months

Dental Diagnostic Sciences Samples of Study for Certificate and Master’s Program

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### Dental Diagnostic Sciences Objectives/Program Outcomes:

- Provide comprehensive training that assures resident knowledge and proficiency in Oral and Maxillofacial Radiology through extensive training in radiation physics, radiation biology, radiographic techniques and interpretation, anatomy of the head and neck and diagnostic imaging interpretation of the maxillofacial region using conventional and advanced radiographic procedures such as CT, Cone Beam CT, and magnetic resonance images acquired in the graduate clinic or in assigned courses.
- Prepare the residents to successfully challenge the Oral and Maxillofacial Radiology board exams and become certified Radiologists.

### Dental Diagnostic Sciences Program Policies

#### Policy on Probation and Dismissal

An advanced education student may be placed on academic probation for reasons of substandard performance in didactic, clinical, behavioral or professional/ethical areas. A student whose overall grade point average falls below B (3.0) or who receives a final grade of D, F or U for any course during any one grading period will be considered for a recommendation of academic probation by the departmental Residency Oversight Committee of the appropriate program. A recommendation for probation will be made to the Advanced Education Committee’s (AEC) Graduate Program Directors Subcommittee, which is comprised of the Program Directors of all the Advanced Education Programs in the Dental School and the Associate Dean for Student Affairs. Only the Program Directors will be voting members of this Subcommittee; the Associate Dean for Student Affairs will serve in an ex officio capacity as a non-voting member. In addition, the departmental Residency Oversight Committee may recommend to the AEC’s Graduate Program Directors Subcommittee that a student be placed on academic probation for clinical, behavioral or professional/ethical performance that does not meet the standards of the program. The AEC’s Graduate Program Directors Subcommittee will formally place the student on academic probation upon majority vote of the members.

A student placed on academic probation will be given written notification by the Chair of the Advanced Education Committee of such status. This notification will serve as an official warning to the student that her or his didactic, clinical, behavioral and/or professional/ethical performance is below standard and continuation in the postgraduate program is in jeopardy. The student will be allowed an opportunity to correct the substandard performance that led to academic probation status over a probationary time period determined by the departmental Residency Oversight Committee. At subsequent monthly AEC meetings, the Program Director of the affected residency will report to the AEC on the status of the probationed student’s progress. Upon the student’s successful correction of performance deficiencies, he or she will be removed from academic probation. If the reason for academic probation was a GPA below 3.0, the student will remain on probation for as long as her or his cumulative GPA is below 3.0. While on probation, a student must maintain a B average in those courses for which he or she is registered or be considered for dismissal recommendation by the departmental Residency Oversight Committee. A recommendation to remove the student from academic probation will be made by the departmental Residency Oversight Committee to the AEC’s Graduate Program Directors Subcommittee, which will remove academic probation status upon majority vote on the members.

If the substandard performance that led to academic probation is not corrected, the student will be subject to dismissal from the program. A recommendation for dismissal will be made by the departmental Residency Oversight Committee to the AEC’s Graduate Program Directors Subcommittee. The AEC’s Graduate Program Directors Subcommittee will consider the recommendation for dismissal and will formally dismiss the student from the program upon majority vote of the members. A student will be subject to dismissal actions without a probationary period if he or she receives a final grade of D or F for 4 (four) or more credit hours of required course work during a single grading period.

During academic probation and dismissal actions, the student may address the AEC Graduate Program Directors Subcommittee in writing or may request permission to appear before the Subcommittee to present her or his views. The Advanced Education Committee will transmit recommendations for dismissal through the Associate Dean for Student Affairs to the Dean. Students may appeal academic dismissal to the Dental Dean. Procedural appeal may be made to the President in accordance with Health Science Center policy.

#### Endodontics

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The University of Texas Health Science Center at San Antonio

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DIAG 6007 Graduate Oral And Maxillofacial Clinic 3
DIAG 6017 Literature Review 1
DIAG 6018 OMR Case Conference 1
DIAG 6071 Supervised Teaching 1
INTD 6098 Thesis 4

Total Credit Hours: 10.0
Endodontics Admissions Requirements

- Official dental school transcripts
- Official evaluation of dental school transcripts for international students
- National Board exams scores for domestic dental students
- GRE exam scores for international dental students
- TOEFL exam scores for non-English speakers
- GPA/Class Rank
- 3 letters of recommendation
- $50.00 application fee
- Interview with Program Director and Faculty

Endodontics Degree Requirements

- Completion of all course work with a minimum 3.0
- Completion of a research project
- Completion of a portfolio of ten patient cases
- Completion of 335 clinical cases
- Completion of 15 surgeries.

Endodontics Plans of Study Certificate and Master's Program

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<td>ENDO 6076</td>
<td>Current Literature Review</td>
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Track total 11
M.S. total 34
**Endodontics Objectives/Program Outcomes**

**Goals**
Consistent with the UTHSCSA mission and with the Standards for Advanced Specialty Education Programs in Endodontics, the program goals are to provide each student with an excellent, individualized educational experience in four areas: 1) biomedical sciences, 2) clinical sciences, 3) teaching, 4) research and to ultimately prepare each student to achieve certification by the American Board of Endodontics.

**Objectives**
The objectives of the program are to provide instruction and/or clinical experience in the following areas:

1. Biomedical sciences
   - A. Anatomy and histology, including embryology
   - B. Microbiology, infection and immunology
   - C. Oral medicine and pathology
   - D. Biochemistry and physiology
   - E. Pharmacology

2. Clinical sciences
   - A. Patient evaluation and management, including emergencies
   - B. Endodontic radiology, diagnosis and treatment plans
   - C. Pain and infection, including pharmacologic management
   - D. Nonsurgical and surgical endodontic procedures
   - E. Restoration of endodontically treated teeth
   - F. Evaluation of endodontic therapy
   - G. Practice management

3. Teaching endodontics
   - A. Presentations in lectures, seminars and table clinic
   - B. Preclinical instruction of undergraduate students
   - C. Clinical instruction of undergraduate students

4. Research
   - A. Statistics, research design and methodology
   - B. Investigation and evaluation of the literature
   - C. Written and oral presentation of research results

The curriculum of instruction and experience in biomedical and clinical sciences is well balanced with teaching and research experience. The ultimate objective of the program is to develop students who are well prepared for candidacy for certification by the American Board of Endodontics and for continued career progress in clinical practice or academic achievement.

**Probation and Dismissal**
An advanced education student may be placed on academic probation for reasons of substandard performance in didactic, clinical, behavioral or professional/ethical areas. A student whose overall grade point average falls below B (3.0) or who receives a final grade of D, F or U for any course during any one grading period will be considered for a recommendation of academic probation by the departmental Residency Oversight Committee of the appropriate program. A recommendation for probation will be made to the Advanced Education Committee’s (AEC) Graduate Program Directors Subcommittee, which is comprised of the Program Directors of all the Advanced Education Programs in the Dental School and the Associate Dean for Student Affairs. Only the Program Directors will be voting members of this Subcommittee; the Associate Dean for Student Affairs will serve in an ex officio capacity as a non-voting member. In addition, the departmental Residency Oversight Committee may recommend to the AEC’s Graduate Program Directors Subcommittee that a student be placed on academic probation for clinical, behavioral or professional/ethical performance that does not meet the standards of the program. The AEC’s Graduate Program Directors Subcommittee will formally place the student on academic probation upon majority vote of the members.

A student placed on academic probation will be given written notification by the Chair of the Advanced Education Committee of such status. This notification will serve as an official warning to the student that her or his didactic, clinical, behavioral and/or professional/ethical performance is below standard and continuation in the postgraduate program is in jeopardy. The student will be allowed an opportunity to correct the substandard performance that led to academic probation status over a probationary time period determined by the departmental Residency Oversight Committee. At subsequent monthly AEC meetings, the Program Director of the affected residency will report to the AEC on the status of the probation student’s progress. Upon the student’s successful correction of performance deficiencies, he or she will be removed from academic probation. A student will remain on probation for as long as her or his cumulative GPA is below 3.0. While on probation, a student must maintain a B average in those courses for which he or she is registered or be considered for dismissal recommendation by the departmental Residency Oversight Committee. A recommendation to remove the student from academic probation will be made by the departmental Residency Oversight Committee to the AEC’s Graduate Program Directors Subcommittee, which will remove academic probation status upon majority vote of the members.

If the substandard performance that led to academic probation is not corrected, the student will be subject to dismissal from the program. A recommendation for dismissal will be made by the departmental Residency Oversight Committee to the AEC’s Graduate Program Directors Subcommittee. The AEC’s Graduate Program Directors Subcommittee will consider the recommendation for dismissal and will formally dismiss the student from the program upon majority vote of the members. A student will be subject to dismissal actions without a probationary period if he or she receives a final grade of D or F for 4 (four) or more credit hours of required course work during a single grading period.

During academic probation and dismissal actions, the student may address the AEC Graduate Program Directors Subcommittee in writing or may request permission to appear before the Subcommittee to present her or his views. The Advanced Education Committee will transmit recommendations for dismissal through the Associate Dean for Student Affairs to the Dean. Students may appeal academic dismissal to the Dental Dean. Procedural appeal may be made to the President in accordance with Health Science Center policy.
Periodontics

Periodontics

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credit Hours</th>
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<tr>
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<td>Periodontics Lecture Series</td>
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</tr>
<tr>
<td>PATH 5035</td>
<td>Oral Pathology (Fall PGI)</td>
<td>2</td>
</tr>
<tr>
<td>PERI 5052</td>
<td>Surgical Anatomy (Fall PGI)</td>
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<tr>
<td>PROS 5050</td>
<td>Dental Implantology (Fall PGI)</td>
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<td>PERI 5031</td>
<td>Periodontics Lecture Series (Fall PGI)</td>
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<td>Perio/Pros/Endo/Orth</td>
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Periodontics Admissions Requirements

Information and Documentation Required for Application

1. Application for Admission form for the Graduate Periodontics Program. Applications are accepted between March 1st and July 15th each year. Do not charge an application fee.
2. Transcripts: one official transcript in a sealed envelope is required from each college/university attended. If you have attended a non-US college/university, it is required that all international transcripts be evaluated by an accredited foreign credentialing service. Please contact our office for a list of such services, if needed.
3. The GPA/Class Rank form completed by the Office of the Dean of the Dental School you attended.
4. National Board Examination scores (official report or certified copy).
5. Test of English as a Foreign Language (TOEFL) or International English Language Testing System (IELTS), if international applicant. TOEFL or IELTS tests taken more than two (2) years prior to date of applications will not be accepted.¹
   A. For TOEFL must have minimum score of 560 for paper test, 220 for computer based test, or 68 for Internet based test.
   B. For IELTS must have minimum score of 6.5
6. Graduate Record Examination (GRE) scores.¹
   A. Required for all applicants who graduated from a dental school not accredited by Commission on Dental Accreditation.
   B. Recommended for all applicants, especially those from schools that do not rank or provide grades.
   C. GRE scores taken more than 5 years before application date will not be accepted.
7. For GRE, TOEFL and IELTS, use School Code #6908, Department Code #0604, Dental Sciences Periodontics
8. Letters of recommendation from 3 individuals addressed to the Director of Graduate Periodontics.
10. Applicants who are Permanent Residents of the US must supply a certified copy of both the front and back sides of their federal Green Card. All international students must provide their full legal name as it appears on immigration documents.

¹ Send TOEFL, IELTS and GRE scores to:
The University of Texas Health Science Center at San Antonio Brian L. Mealey, DDS, MS, Program Director
7703 Floyd Curl Drive, MSC 7894
San Antonio, Texas 78229-3900

Periodontics Degree Requirements

A Certificate in Periodontics is awarded upon successful completion of the prescribed curriculum listed below:

Periodontics Certificate ¹ First Year Course List

Advanced Dental Education Fall 1st Year

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credit Hours</th>
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<tbody>
<tr>
<td>GEND 5027</td>
<td>Pain Control &amp; Sedation</td>
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<td>Clinical Periodontics ¹</td>
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<td>PERI 5073</td>
<td>Literature Seminars ¹</td>
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<td>Perio/Pros/Endo/Orth Interdisciplinary Course ¹</td>
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<td>Dental Biomed Core ¹</td>
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<td>PATH 5035</td>
<td>Oral Pathology ¹</td>
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<tr>
<td>PATH 5121</td>
<td>Biostatistics ¹</td>
<td>1</td>
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<tr>
<td>PERI 5011</td>
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<td>Surgical Anatomy ¹</td>
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<td>PROS 5050</td>
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Total Credit Hours: 22.5

¹ M.S. courses

Advanced Dental Education Spring 1st Year

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<td>PERI 6001</td>
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Periodontics Certificate Second Year Course List

Advanced Dental Education Fall 2nd Year

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<td>Clinical Periodontics 1</td>
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<td>PERI 5025</td>
<td>Case Presentation Seminar</td>
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<td>PERI 5031</td>
<td>Periodontics Lecture Series 1</td>
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<td>PERI 5037</td>
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1 M.S. courses

Advanced Dental Education Spring 2nd Year

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<td>Clinical Periodontics 2</td>
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1 M.S. courses

Periodontics Certificate Third Year Course List

Advanced Dental Education Fall 3rd Year

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<td>PERI 6050</td>
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1 M.S. courses

Advanced Dental Education Spring 3rd Year

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<td>Case Presentation Seminar</td>
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<td>PERI 6050</td>
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1 M.S. courses

Periodontics Program Objectives/Program Outcomes

The primary goal of the Periodontics Program is to produce outstanding clinical periodontists who engage in a broad scope of periodontal procedures and who are capable of engaging in research, teaching and...
leadership activities. We hope to produce the most well trained clinical periodontists coming out of residency programs in the U.S., so that they can offer the highest quality of care to their patients, provide for their families, and give back to the community and the profession.

Program Outcomes:

1. Demonstrate foundational didactic knowledge and insight in the biomedical sciences.
2. Demonstrate a high level of clinical skill in a comprehensive variety of periodontal and dental implant treatment modalities.
3. Demonstrate knowledge of classic and current periodontal and implant literature; including interpretation, analysis, and critical evaluation.
4. Demonstrate knowledge of systemic/medical considerations impacting patient periodontal status and provision of care.
5. Demonstrate knowledge of pathogenesis/management of oral mucosal pathoses.
6. Demonstrate knowledge of and clinical skills in multidisciplinary patient care (prosthodontic, orthodontics, TMD, endodontics).
7. Demonstrate knowledge of and clinical skills in methods of adjunctive anxiety and pain control including conscious sedation using intravenous, oral and inhalation routes. Emphasis will be placed on IV sedation.
8. Prepare student for practice following graduation by introduction to principles of practice management.
9. Demonstrate professional/ethical behavior in all aspects of residency training and patient care.
10. Demonstrate knowledge of organizing, leading and presenting lectures, case presentations and seminars.
11. Demonstrate ability to teach clinical periodontal evaluation, diagnosis and therapy to other oral health care providers.
12. Successfully challenge the AAP In-Service Examination (2nd/3rd years).
14. Obtain specialty board certification by program graduates.
15. Develop an understanding of the scientific method, hypothesis testing and use of evidence based methodologies. Demonstrate active engagement in research leading to Master of Science degree by the conclusion of residency.
16. Present research findings at local/national levels. Publish in scientific journals.
17. Evaluation of the residency program by program graduates.
18. Evaluation of faculty effectiveness by students and Program Director.
19. Provide frequent formal student feedback.
20. Evaluate goals, objectives and outcomes of the program annually.

Periodontics Program Policies

Policy on Probation and Dismissal

An advanced education student may be placed on academic probation for reasons of substandard performance in didactic, clinical, behavioral or professional/ethical areas. A student whose overall grade point average falls below B (3.0) or who receives a final grade of D, F or U for any course during any one grading period will be considered for a recommendation of academic probation by the departmental Residency Oversight Committee of the appropriate program. A recommendation for probation will be made to the Advanced Education Committee’s (AEC) Graduate Program Directors Subcommittee, which is comprised of the Program Directors of all the Advanced Education Programs in the Dental School and the Associate Dean for Student Affairs. Only the Program Directors will be voting members of this Subcommittee; the Associate Dean for Student Affairs will serve in an ex officio capacity as a non-voting member. In addition, the departmental Residency Oversight Committee may recommend to the AEC’s Graduate Program Directors Subcommittee that a student be placed on academic probation for clinical, behavioral or professional/ethical performance that does not meet the standards of the program. The AEC’s Graduate Program Directors Subcommittee will formally place the student on academic probation upon majority vote of the members.

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Prosthodontics

Prosthodontics

PROS 5015 Concepts Of Occlusion (Summer PG) 1
Prosthodontics Admissions Requirements

1. Graduation from Dental School with D.D.S, D.M.D., or non-U.S. equivalent prior to matriculation.
2. Completed Application for Admission Form for the Graduate Prosthodontics Program. Applications are accepted between October 1st and August 5th each Year. There is no application fee.
3. Transcripts: one official transcript in a sealed envelope is required from each college/university attended. If you have attended a non-US college/university, all international transcripts must be evaluated by an accredited foreign credentialing service. Please contact our program office for a list of credentialing service providers if needed.
4. The GPA / Class Rank completed by the Office of the Dean at the dental school attended.
5. Three letters of recommendation.
6. A brief curriculum vitae.
7. Non-U.S. citizens who are permanent residents of the United States must provide a copy of both the front and back sides of their federal Green Card. All international students must provide their full legal name as it appears on immigration documents.
8. Official Test of English as a Foreign Language (TOEFL) results if an international student and English is a second language. The reported TOEFL results must be less than 2 years old at the time of submission. A minimum paper based score of 560, computer based score of 220, or internet based score of 68 is required.
9. Graduate Record Exam (GRE) scores.
   A. Required for all applicants who graduated from a dental school not accredited by the Commission on Dental Accreditation (CODA).
   B. Recommended for all applicants, particularly those applicants from dental schools with Pass / Fail grading or schools that do not provide class ranks.
   C. Report GRE scores using School Code #6908, Department Code #0604.
11. Personal interview if selected as finalist in selection process.

Mailing address for application, transcripts, test results, recommendations and future correspondence regarding the application:

Department of Comprehensive Dentistry, MSC 7912
UT Health Science Center
7703 Floyd Curl Dr.

San Antonio, Texas 78229-3900

Prosthodontics Degree Requirements

A certificate in prosthodontics will be awarded upon the student’s successful completion of the prescribed prosthodontic curriculum with a minimum 3.0 GPA, recommendation of the program director to the Dean for Student Affairs and certification by the Dean to the President.

The Master of Science in Dental Science degree will be awarded upon the student’s successful completion of the designated courses in the sample plan of study below with a minimum 3.0 GPA, successful defense of M.S. thesis, award of a certificate in Prosthodontics, recommendation of the Committee on Graduate Studies and certification of the Faculty Council of the Graduate School to the President.

Prosthodontics Plan of Study Certificate and Master’s Program

Prosthodontics Certificate

First Year
Fall
Credit
Hours

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
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<tr>
<td>INTD 5013</td>
<td>Perio/Pros/Endo/Orth Interdisciplinary Course 1</td>
<td>1 MS</td>
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<td>INTD 5020</td>
<td>Dental Biomed Core 1</td>
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<td>INTD 5090</td>
<td>Grad Research Methodology</td>
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<td>INTD 5257</td>
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<td>PATH 5035</td>
<td>Oral Pathology</td>
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<td>PATH 5121</td>
<td>Biostatistics</td>
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Total Credit Hours: 24.5

First Year
Spring
Credit
Hours

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<td>INTD 5021</td>
<td>Dental Biomed Core 2</td>
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1. Interdisciplinary course
MS Required for the M.S. in Dental Science, Prosthodontics track
Dental School

PROS 5022 Advanced Prosthodontics 1 1
PROS 5033 Clinical Prosthodontics I 3
PROS 5045 OMS/Prosthodontics Seminar 1 1
PROS 5049 Overview of Maxillofacial Pros 0.5
PROS 5068 Supervised Teaching 1 MS
PROS 5073 Literature Review Seminar 1 1
RESD 6021 Advanced Dental Materials 3.5

Total Credit Hours: 15.5

1 Interdisciplinary course
MS Required for the M.S. in Dental Science, Prosthodontics track

Second Year

Fall

Credit Hours
INTD 6014 Perio/Pros/Endo/Orth Interdisciplinary Course 2 2 1
INTD 6357 Research 2- Data Collection MS 3
PROS 6022 Advanced Prosthodontics 2 1
PROS 6031 Clinical Prosthodontics 2 4.5
PROS 6046 OMS/Prosthodontics Seminar 2 1
PROS 6069 Supervised Teaching 2 2
PROS 6073 Literature Review Seminar 2 1

Total Credit Hours: 13.0

1 Interdisciplinary course
MS Required for the M.S. in Dental Science, Prosthodontics track

Spring

Credit Hours
INTD 6014 Perio/Pros/Endo/Orth Interdisciplinary Course 2 2 1
INTD 6357 Research 2- Data Collection MS 3
PROS 6022 Advanced Prosthodontics II 1.5
PROS 6032 Clinical Prosthodontics 2 4.5
PROS 6043 Geriatric Dentistry 0.5
PROS 6047 OMS/Prosthodontics Seminar 2 1
PROS 6070 Supervised Teaching 2 2
PROS 6074 Literature Review Seminar 2 1

Total Credit Hours: 14.0

1 Interdisciplinary course
MS Required for the M.S. in Dental Science, Prosthodontics track

Third Year

Fall

Credit Hours
INTD 6058 Research 3- Data Analysis MS 2
INTD 6115 Perio/Pros/Endo/Ortho Interdisciplinary Course 3 1
PROS 6033 Clinical Prosthodontics III 4

PROS 6036 Maxillofacial Prosthodontics 1 1
PROS 6048 Oral & Maxillofacial Surgery and Prosthodontics Seminar 1 0.5
PROS 6071 Supervised Teaching 3 2
PROS 6075 Literature Review Seminar 3 1
PROS 6121 Advanced Prosthodontics 3 1

Total Credit Hours: 12.5

1 Interdisciplinary course
MS Required for the M.S. in Dental Science, Prosthodontics track

Prosthodontics Objectives/Program Outcomes

The primary goal of the Advanced Prosthodontic Education Program at UTHSCSA is to provide educational experiences for our students that create clinically competent prosthodontists. It is our belief that board certification, sub-specialization and successful careers in research, teaching, private and institutional practice are all derivatives of prosthodontic clinical competence. Our secondary goal is to provide a sufficient exposure to the derivative fields of the specialty to guide our students in their long term career decisions.

Program Outcomes:

1. Students will demonstrate a comprehensive understanding of education in biomedical sciences as a foundation for clinical prosthodontics.
2. Students will demonstrate a historical and evidence-based understanding of contemporary prosthodontic practice.
3. Students will successfully challenge progressive didactic, laboratory and clinical experiences in fixed, removable, maxillofacial and implant prosthodontics and demonstrate adequate preparation for skillful practice of the art and science of prosthodontics at the specialty level.
4. Students will successfully practice in a service oriented model of specialty care with experiences that focus on the best interests of the patient in a climate of interdisciplinary consultation and collaboration.
5. Students will successfully complete didactic and clinical instruction that will potentiate future roles as prosthodontic educators.
6. Students will demonstrate a adequate preparation to successfully challenge the certifying examinations of the American Board of Prosthodontics.
7. Students will apply a sufficient understanding of dental research that will permit successful completion of a Master of Science degree or a scholarly publication / presentation.

Program Policies

Academic Probation and Dismissal

An advanced education student may be placed on academic probation for reasons of substandard performance in didactic, clinical, behavioral or professional/ethical areas. A student whose overall grade point average falls below B (3.0) or who receives a final grade of D, F or U for any course during any one grading period will be considered for a recommendation of academic probation by the departmental Residency Oversight Committee of the appropriate program. A recommendation for probation will be made to the Advanced Education Committee's (AEC) Graduate Program Directors Subcommittee, which is comprised of the Program Directors of all the Advanced Education Programs in the Dental School and the Associate Dean for Student Affairs. Only the Program Directors will be voting members of this Subcommittee; the Associate Dean for Student Affairs will serve in an ex-officio capacity as a non-voting member. In addition, the departmental Residency Oversight Committee may recommend to the AEC's Graduate Program Directors Subcommittee that a student be placed on academic probation for clinical, behavioral or professional/ethical performance that does not meet the standards of the program. The AEC's Graduate Program Directors Subcommittee will formally place the student on academic probation upon majority vote of the members.

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4. Graduate Record Exam (GRE) scores.

5. Official Test of English as a Second Language (TOEFL) results if an international student and English is a second language. The reported TOEFL results must be less than two years old at the time of submission.

6. Three letters of recommendation.

7. Submission deadline is September 15.

Certificate in Orthodontics and Dentofacial Orthopedics Degree Requirements

Certificates will be awarded upon the student’s successful completion of the prescribed curriculum with a 3.0 minimum grade point average, recommendation of the program director to the Associate Dean for Student Affairs and certification by the Dean to the President.

Certificate in Orthodontics and Dentofacial Orthopedics Sample Plan of Study

First Year

<table>
<thead>
<tr>
<th>Fall</th>
<th>Credit Hours</th>
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<tbody>
<tr>
<td>ORTH 5020 Clinical Orthodontics 1</td>
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<td>INTD 5090 Grad Research Methodology</td>
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<td>ORTH 5014 Literature Seminars</td>
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<td>ORTH 5013 Orthodontic Treatment Planning</td>
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<td>PATH 5121 Biostatistics</td>
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Total Credit Hours: 15.5

Second Year

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Total Credit Hours: 4.5

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Total Credit Hours: 4.0

Certificate in Orthodontics and Dentofacial Orthopedics Objectives/Program Outcomes

The Certificate in Orthodontics program at the UT Health Science Center San Antonio Dental School is designed to prepare students to acquire the knowledge and clinical skills necessary to provide comprehensive orthodontic care and correct malocclusions and limited skeletal deformities in children and adults, including those with special health care needs.

Program Outcomes: At the completion of the program the student will:
1. Demonstrate competency and proficiency as a clinical orthodontic specialist in evidence-based clinical practice.

2. Demonstrate the understanding of and competency in professional and ethical behavior in clinical practice.

3. Demonstrate a thorough knowledge base of etiology of dental malocclusions, dentofacial deformity, growth and development and management of malocclusions according to accepted standards of care in orthodontics.

4. Complete a research project that includes protocol development, data collection and analysis, preparation of a publishable quality scientific paper and presentation of findings at a scientific meeting.

Program Policies
Probation and Dismissal

An advanced education student may be placed on academic probation for reasons of substandard performance in didactic, clinical, behavioral or professional/ethical areas. A student whose overall grade point average falls below B (3.0) or who receives a final grade of D, F or U for any course during any one grading period will be considered for a recommendation of academic probation by the departmental Residency Oversight Committee of the appropriate program. A recommendation for probation will be made to the Advanced Education Committee’s (AEC) Graduate Program Directors Subcommittee, which is comprised of the Program Directors of all the Advanced Education Programs in the Dental School and the Associate Dean for Student Affairs. Only the Program Directors will be voting members of this Subcommittee; the Associate Dean for Student Affairs will serve in an ex officio capacity as a non-voting member. In addition, the departmental Residency Oversight Committee may recommend to the AEC’s Graduate Program Directors Subcommittee that a student be placed on academic probation for clinical, behavioral or professional/ethical performance that does not meet the standards of the program. The AEC’s Graduate Program Directors Subcommittee will formally place the student on academic probation upon majority vote of the members.

A student placed on academic probation will be given written notification by the Chair of the Advanced Education Committee of such status. This notification will serve as an official warning to the student that her or his didactic, clinical, behavioral and/or professional/ethical performance is below standard and continuation in the postgraduate program is in jeopardy. The student will be allowed an opportunity to correct the substandard performance that led to academic probation status over a probationary time period determined by the departmental Residency Oversight Committee. At subsequent monthly AEC meetings, the Program Director of the affected residency will report to the AEC on the status of the probationed student’s progress. Upon the student’s successful correction of performance deficiencies, he or she will be removed from academic probation. A student will remain on probation for as long as her or his cumulative GPA is below 3.0. While on probation, a student must maintain a B average in those courses for which he or she is registered or be considered for dismissal recommendation by the departmental Residency Oversight Committee. A recommendation to remove the student from academic probation will be made by the departmental Residency Oversight Committee to the AEC’s Graduate Program Directors Subcommittee, which will remove academic probation status upon majority vote on the members.

If the substandard performance that led to academic probation is not corrected, the student will be subject to dismissal from the program. A recommendation for dismissal will be made by the departmental Residency Oversight Committee to the AEC’s Graduate Program Directors Subcommittee. The AEC’s Graduate Program Directors Subcommittee will consider the recommendation for dismissal and will formally dismiss the student from the program upon majority vote of the members. A student will be subject to dismissal actions without a probationary period if he or she receives a final grade of D or F for 4 (four) or more credit hours of required course work during a single grading period.

During academic probation and dismissal actions, the student may address the AEC Graduate Program Directors Subcommittee in writing or may request permission to appear before the Subcommittee to present her or his views. The Advanced Education Committee will transmit recommendations for dismissal through the Associate Dean for Student Affairs to the Dean. Students may appeal academic dismissal to the Dental Dean. Procedural appeal may be made to the President in accordance with Health Science Center policy.

Certificate in Pediatric Dentistry

The program in pediatric dentistry is designed to offer the advanced student a balanced curriculum in both didactic and clinical areas. Particular emphasis is placed on hospital dentistry, conscious sedation, interceptive orthodontics and special patient care. The program is administered by the Department of Pediatric Dentistry of the Dental School and is approved and accredited by the Council of Dental Education of the American Dental Association. Upon successful completion of all requirements, the student is awarded a certificate in Pediatric Dentistry and meets the eligibility requirements for the American Board of Pediatric Dentistry.

Certificate in Pediatric Dentistry Admissions Requirements

Students are admitted to the certificate programs through registration as postdoctoral certificate students in the Dental School. To be eligible for admission, individuals must have earned a D.D.S. or D.M.D. degree or non-US equivalent prior to matriculation and must present their dental education transcripts, three letters of recommendation and three personal potential index evaluations. A personal interview is required.

All applications should be submitted through the PASS program. Application cycle opens in May 21, 2013 through September 16, 2013.

Graduates of dental schools which have not been accredited by the Commission on Dental Accreditation must have successfully approved the National Boards prior to application.

Applicants for whom English is not the native language are required to submit scores from the Test of English as a Foreign Language (TOEFL).

Certificate in Pediatric Dentistry Degree Requirements

Certificates will be awarded upon the student’s successful completion of the prescribed curriculum with a 3.0 minimum grade point average, recommendation of the program director to the Associate Dean for Student Affairs and certification by the Dean to the President.
## Certificate in Pediatric Dentistry Sample Plan of Study

### First Year
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### Second Year
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#### Spring

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## Certificate in Pediatric Dentistry Objectives/Program Outcomes

The Certificate in Pediatric Dentistry program at the UT Health Science Center San Antonio is designed to prepare students to have the knowledge and clinical skills to provide comprehensive pediatric preventive and restorative oral health care to infants, children and adolescents, including those with special health care needs.

At the completion of the program the student will:

1. Demonstrate excellence as a clinical pediatric dentist.
2. Demonstrate excellence in evidence-based clinical practice.
3. Demonstrate a thorough knowledge base of medical and dental diseases and their management according to accepted standards of care in the pediatric dental setting.
4. Complete a research project that includes protocol development, data accumulation and analysis, preparation of a scientific paper and presentation of findings in a scientific forum.

## Certificate in Pediatric Dentistry Program Policies

### Probation and Dismissal

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Dental Hygiene

Dental hygienists are licensed health care professionals that specialize in preventing oral health problems and diseases. To become a licensed, registered dental hygienist requires successful completion of an ADA accredited dental hygiene program, The National Dental Hygiene Board Examination, and a state or regional examination. The primary responsibility of a dental hygienist is to treat and educate patients in the control and prevention of oral diseases. Typical functions of the clinical dental hygienist include assessment of health histories, evaluating and charting oral conditions, removing deposits (plaque, tartar, and stain) from the teeth, exposing and processing dental x-rays, applying preventive agents to the tooth surfaces such as fluoride and sealants, and providing individualized oral hygiene instruction services.

This growing career field is projected to be one of the 30 fastest growing occupations. The population growth combined with the increasing rate of retention of natural teeth will continue to stimulate the need for dental hygienists. For additional information on the profession of dental hygiene, contact the American Dental Hygienists’ Association (http://www.adha.org).

Program Policies

Grades

The standing of students in their work is expressed by the following grades:

- A = Excellent
- B = Above Average
- C = Average
- D = Below Average
- F = Failure

Grades in courses in which performance is graded an S (Satisfactory) or U (Unsatisfactory) are not used in computing grades point average.

- A = 4 points
- B = 3 points
- C = 2 points
- D = 1 point
- F = 0 points

The symbol I (Incomplete) may be recorded for a student who has not completed course assignments at the conclusion of the course.

Grades in Clinical Rotation and Practicums

Clinical rotations and Practicums may be graded S (Satisfactory) or U (Unsatisfactory), or may be assigned a letter grade, depending on the department policy.

A grade of S or other designations of an acceptance grade is assigned if the student successfully satisfies the criteria for clinical courses. Failure to successfully satisfy the course criteria may result in an I (Incomplete) or a U (Unsatisfactory) or a letter grade considered unsatisfactory based on departmental policy.

Criteria and time frame for removal of an I or U or other Unsatisfactory grade in clinical courses are determined based on clinical documentation and consultation with the Clinical Supervisor/Clinical Instructor. An I or U or other unsatisfactory grade may require that the student complete an additional affiliation or other remediation that could extend the professional curriculum beyond the expected graduation date. More than one unsatisfactory grade is not allowed within the total clinical course sequence.

Incomplete

A grade of I (Incomplete) may be assigned when a student has not satisfactorily completed all course requirements by the conclusion of the course requirements by the conclusion of the course. Unless the student has been granted a Leave of Absence, all incomplete work must be completed within one year, at which time the grade will be changed to the appropriate letter grade. When an I is issued pending a grade in a course that is a prerequisite for another course, the I must be removed before the student I allowed to enroll in the next sequential course.

Dropping a Course

There is a six course drop limit established by the Texas Senate (SB 1231). This legislation is applicable to all Texas public colleges and universities.

Withdrawal from a Course

From the beginning of the third week to the end of the eleventh week of classes (or first week to the seventh week for summer term), a student may withdraw from a course and receive a W (Withdrawal) on her or his transcript. Students who wish to withdraw must meet with their faculty advisor and the course instructor, fill out the course withdraw form, and obtain necessary signatures.

Between the end of the eleventh week (or the end of the seventh week for summer term) and the last day of class before finals, students who wish to withdraw from a course must petition the faculty through a written request to the course instructor. The petition must state why the student is unable to continue in the course. Acceptance reasons for the withdrawal do not include dissatisfaction with the instructor or course or with the expected grade or performance. The faculty will approve or deny the request. If approved, the student will receive a W on her or his transcript. If the request is denied, the instructor will assign a final grade in accordance with the criteria that is applied to other student in the course.

The instructor may recommend to the Department Chair that a student be administratively dropped from a course when the instructor can show that
circumstances warrant such action. The Dean must approve this request. If approved a grade of W will be assigned.

Also see policies on withdrawal from all classes, leaves of absence, and dismissals.

Master of Science in Dental Hygiene

Dental hygienists are licensed health care professionals that specialize in preventing oral health problems and diseases. To become a licensed, registered dental hygienist requires successful completion of an ADA accredited dental hygiene program, The National Dental Hygiene Board Examination, and a state or regional examination. The primary responsibility of a dental hygienist is to treat and educate patients in the control and prevention of oral diseases. Typical functions of the clinical dental hygienist include assessment of health histories, evaluating and charting oral conditions, removing deposits (plaque, tartar, and stain) from the teeth, exposing and processing dental x-rays, applying preventive agents to the tooth surfaces such as fluoride and sealants, and providing individualized oral hygiene instruction services.

This growing career field is projected to be one of the 30 fastest growing occupations. The population growth combined with the increasing rate of retention of natural teeth will continue to stimulate the need for dental hygienist. For additional information on the profession of dental hygiene, contact the American Dental Hygienists’ Association (http://www.adha.org).

Master of Science in Dental Hygiene Admissions Requirements

A maximum of 6 qualified students are admitted to the Master of Science in Dental Hygiene degree program. In addition to the academic admission requirements, non-academic factors may be considered when selecting students for admission to the MS program.

1. Bachelor’s degree from a nationally and regionally accredited institution of higher education in the United States.
2. Graduation from an accredited dental hygiene program recognized by the American Dental Association Commission on Dental Accreditation (CODA) within the United States and Canada.
4. Current licensure as a Registered Dental Hygienist in any state in the United States or Canada.
5. Satisfactory grades in undergraduate courses. The undergraduate grade point average should be no lower than a 3.0 on a 4.0 point scale system.
6. Complete the Graduate Record Examinations General Aptitude Test (GRE) or on the Miller Analogies Test (MAT). Scores on GRE and MAT tests must be within the previous 5 years. No minimum score is required.
7. Applicants from countries where English is not the native language, are required to submit scores on the Test of English as a Foreign Language (TOEFL). A minimum score of 68 (Internet), 220 (computer), or 560 (paper) is required.

Application Requirements

Applicants must meet all qualifications and submit all required information by December 31. Transcripts containing fall courses must be submitted by January 15.

Master of Science in Dental Hygiene Degree Requirements

A Master of Science in Dental Hygiene is awarded following successful completion of the core curriculum and electives to earn a total of 36 semester credit hours. The Master degree requires original research to be conducted and shared with the profession of dental hygiene.

Master of Science in Dental Hygiene Sample Plan of Study

<table>
<thead>
<tr>
<th>Core Courses</th>
<th>Credit Hours</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>DENH 5026 Research Principles &amp; Application</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>DENH 5924 Biostatistics</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>DENH 5024 Professional Communication</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>DENH 5050 Educational Principles and Application</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>INTD 5023 Research Ethics</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>DENH 5022 Research Apprenticeship</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>DENH 6098 Thesis</td>
<td>6</td>
<td></td>
</tr>
</tbody>
</table>

All Master students are required to successfully complete all core coursework.

Course Electives

Select three or four of the following: 14

Education Concentration

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>DENH 5003</td>
<td>Current Issues In Dental Hygiene</td>
<td></td>
</tr>
<tr>
<td>DENH 5007</td>
<td>Clinical Administration Practicum</td>
<td></td>
</tr>
<tr>
<td>DENH 5010</td>
<td>Teaching Internship</td>
<td></td>
</tr>
<tr>
<td>DENH 5017</td>
<td>Clinical Teaching Practicum</td>
<td></td>
</tr>
<tr>
<td>DENH 5903</td>
<td>Organizational Leadership</td>
<td></td>
</tr>
<tr>
<td>DENH 5926</td>
<td>Predental Teaching Practicum</td>
<td></td>
</tr>
<tr>
<td>DENH 5091</td>
<td>Special Topics In Dental Hygiene</td>
<td></td>
</tr>
<tr>
<td>DENH 6091</td>
<td>Independent Study</td>
<td></td>
</tr>
</tbody>
</table>

Public Health Concentration

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>DENH 5015</td>
<td>Public Health Practicum</td>
<td></td>
</tr>
<tr>
<td>DENH 5027</td>
<td>The Summer Institute In Aging</td>
<td></td>
</tr>
<tr>
<td>DENH 5028</td>
<td>Public Health Policy</td>
<td></td>
</tr>
<tr>
<td>DENH 5036</td>
<td>Health Promotion</td>
<td></td>
</tr>
<tr>
<td>DENH 5091</td>
<td>Special Topics in Dental Hygiene</td>
<td></td>
</tr>
</tbody>
</table>

Total Credit Hours 36

1 Master students should choose a minimum of 14 credit hours from the course electives. This may be accomplished by choosing courses from the Education Track, the Public Health Track, or a combination of the two tracks.
**Master of Science in Dental Hygiene Objectives/Program Outcomes**

Objectives are to promote a student-centered on-line learning environment that will allow dental hygienists the opportunity to further their education without relocating to San Antonio. The curriculum will allow students to gain knowledge and skills to become competent to health care educators, managers of community oral health care centers, and conduct original research. Self-evaluation and self-direction are encouraged throughout the program. Students have the opportunity to share their experiences, knowledge and skills, work cooperatively with colleagues, and explore a variety of resources to help them reach their maximum potential.

Outcomes:

1. Demonstrate proficiency in core dental hygiene principles—Students in the Graduate Program in Dental Hygiene will be able to define, explain, and apply key concepts and fundamental principles related to dental hygiene.
2. Critically review and interpret research literature—Students in the Graduate Dental Hygiene Program will be able to conduct a comprehensive systematic literature search, critically analyze and synthesize evidence gathered, and apply the research process to an identified problem.
3. Completion of required coursework (DENH 5026, DENH 5024, DENH 5024, DENH 5050 & INTD 5023), manuscript Submission for Publication (DENH 5024), and Thesis project
4. Communicate effectively in writing—Students in the Graduate Dental Hygiene Program will be able to demonstrate effective communication through writing using correct grammar, syntax, and purpose of thought.
5. Conduct independent research in an ethical manner—Students in the Graduate Dental Hygiene Program will be able to demonstrate ethical principles in the course of conducting research and writing a thesis.

**Bachelor of Science in Dental Hygiene**

Dental hygienists are licensed health care professionals that specialize in preventing oral health problems and diseases. To become a licensed, registered dental hygienist requires successful completion of an ADA accredited dental hygiene program, The National Dental Hygiene Board Examination, and a state or regional examination. The primary responsibility of a dental hygienist is to treat and educate patients in the control and prevention of oral diseases. Typical functions of the clinical dental hygienist include assessment of health histories, evaluating and charting oral conditions, removing deposits (plaque, tartar, and stain) from the teeth, exposing and processing dental x-rays, applying preventive agents to the tooth surfaces such as fluoride and sealants, and providing individualized oral hygiene instruction services.

This growing career field is projected to be one of the 30 fastest growing occupations. The population growth combined with the increasing rate of retention of natural teeth will continue to stimulate the need for dental hygienist. For additional information on the profession of dental hygiene, contact the American Dental Hygienists’ Association (http://www.adha.org).

**Entry Level Track**

The Bachelor of Science (BS) Entry level program may be considered by applicants wishing to become a Dental Hygienist.

**Application and Admission Requirements for the Entry-Level Bachelor’s Degree Program**

A maximum of 30 qualified students are admitted to the Bachelor of Science degree program. In addition to the academic admission requirements, non-academic factors may be considered when selecting students for admission to the BS Entry program.

Required prerequisite courses: The Texas Core Curriculum and program prerequisites must be completed by the end of the spring semester of the year you are entering. The program specific prerequisites are listed below. Applicants must complete a minimum of 60 semester credit hours.

For further information see the Texas General Education Core Web Center (http://catalog.uthscsa.edu/dentalschool/dentalhygiene/bachelors/entryleveltrack/www.students.uthscsa.edu). Applicants are encouraged to seek advisement from their college counselors.

**Program Prerequisites**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction to Chemistry with laboratory</td>
<td>4</td>
</tr>
<tr>
<td>Psychology</td>
<td>3</td>
</tr>
<tr>
<td>Nutrition</td>
<td>3</td>
</tr>
<tr>
<td>Statistics</td>
<td>3</td>
</tr>
<tr>
<td>Microcomputer Applications or equivalent</td>
<td>3</td>
</tr>
<tr>
<td>Elective (may be any academic course)</td>
<td>2</td>
</tr>
<tr>
<td><strong>Total Credit Hours</strong></td>
<td><strong>18</strong></td>
</tr>
</tbody>
</table>

**Application**

Applicants must meet all qualifications and submit all required information by December 31. Transcripts containing fall courses must be submitted by Jan 15. Up to 6 credit hours may be in progress during the spring semester prior to admittance but must be completed and transcripts submitted by June 1.

**Bachelor of Science in Dental Hygiene – Entry Level Track Degree Requirements**

Dental Hygiene Bachelor of Science degree is awarded at the successful conclusion of the program. Licensure is granted through the state of Texas following graduation, successful completion of the National Board Dental Hygiene Examination, the Western Regional Examining Board (WREB), and a state Jurisprudence Examination. Other Texas licensure requirements are detailed on the Texas State Board of Dental Examiners website.
Bachelor of Science in Dental Hygiene – Entry Level Track Sample Plan of Study

Entry-Level Bachelor’s Degree Program Curriculum

First Year

Fall

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>DENH 3004</td>
<td>Oral Anatomy</td>
<td>2</td>
</tr>
<tr>
<td>DENH 3006</td>
<td>Preclinical Dental Hygiene</td>
<td>2</td>
</tr>
<tr>
<td>DENH 3018</td>
<td>Dental Radiography</td>
<td>3</td>
</tr>
<tr>
<td>DENH 3019</td>
<td>Preventive Dental Hygiene Theory</td>
<td>3</td>
</tr>
<tr>
<td>DENH 3022</td>
<td>Dental Materials</td>
<td>3</td>
</tr>
<tr>
<td>DENH 3023</td>
<td>Intro To Clinical Theory</td>
<td>3</td>
</tr>
<tr>
<td>DENH 3033</td>
<td>Structures Of The Head And Neck</td>
<td>2</td>
</tr>
</tbody>
</table>

Total Credit Hours: 18.0

First Year

Spring

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>DENH 3020</td>
<td>Clinic 1 Seminar</td>
<td>2</td>
</tr>
<tr>
<td>DENH 3021</td>
<td>Clinic 1 Practicum</td>
<td>3</td>
</tr>
<tr>
<td>DENH 3034</td>
<td>Periodontics</td>
<td>3</td>
</tr>
<tr>
<td>DENH 3035</td>
<td>Pharmacotherapeutics</td>
<td>4</td>
</tr>
<tr>
<td>DENH 3040</td>
<td>Histology/Embryology</td>
<td>2</td>
</tr>
</tbody>
</table>

Total Credit Hours: 14.0

Second Year

Fall

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>DENH 4012</td>
<td>Oral Pathology</td>
<td>3</td>
</tr>
<tr>
<td>DENH 4018</td>
<td>Introduction To Research</td>
<td>3</td>
</tr>
<tr>
<td>DENH 4020</td>
<td>Clinic 2 Seminar</td>
<td>2</td>
</tr>
<tr>
<td>DENH 4021</td>
<td>Community Oral Health Practicum 1</td>
<td>4</td>
</tr>
<tr>
<td>DENH 4022</td>
<td>Clinic 2 Practicum</td>
<td>3</td>
</tr>
<tr>
<td>DENH 4025</td>
<td>Advanced Periodontics</td>
<td>3</td>
</tr>
<tr>
<td>DENH 4026</td>
<td>Healthcare Ethics</td>
<td>1</td>
</tr>
</tbody>
</table>

Total Credit Hours: 19.0

Second Year

Spring

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>DENH 4015</td>
<td>Clinic 3 Practicum</td>
<td>3</td>
</tr>
<tr>
<td>DENH 4016</td>
<td>Clinic 3 Seminar</td>
<td>2</td>
</tr>
<tr>
<td>DENH 4017</td>
<td>Community Oral Health Practicum 2</td>
<td>2</td>
</tr>
<tr>
<td>DENH 4019</td>
<td>Practice Management</td>
<td>2</td>
</tr>
<tr>
<td>DENH 4111</td>
<td>Current Issues In Dental Hygiene</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Credit Hours: 12.0

Bachelor of Science in Dental Hygiene – Entry Level Track Objectives/Program Outcomes

Objectives

The Bachelor of Science in Dental Hygiene program at the UT Health Science Center San Antonio is designed to prepare students to have the knowledge and clinical skills to provide preventive educational and clinical dental hygiene oral health care to infants, children, adolescents, adults, and those with special health care needs.

Program Outcomes

1. Students will be able to provide clinical assessment and preventive oral health care within the scope of dental hygiene practice to infants, children, adolescents and adults.

2. Students will be able to provide clinical assessment and preventive oral health care within the scope of dental hygiene practice to the unique needs of women, the elderly and patients with physical, cognitive, emotional or development challenges.

3. Students will be able to assess oral and systemic risk factors related to individual health status and collaborate with other health care providers.

4. Students are prepared to provide ethically and socially responsible oral health care in compliance with the laws and regulations governing the practice of dental hygiene within the dental clinic workforce, community health clinics, and educational settings.

5. Students will be able to enhance the oral health of individuals and the community through risk assessment, prevention, promotion of healthy lifestyle and education.

Degree Completion Track

Dental hygienists are licensed health care professionals that specialize in preventing oral health problems and diseases. To become a licensed, registered dental hygienist requires successful completion of an ADA accredited dental hygiene program, The National Dental Hygiene Board Examination, and a state or regional examination. The primary responsibility of a dental hygienist is to treat and educate patients in the control and prevention of oral diseases. Typical functions of the clinical dental hygienist include assessment of health histories, evaluating and charting oral conditions, removing deposits (plaque, tartar, and stain) from the teeth, exposing and processing dental x-rays, applying preventive agents to the tooth surfaces such as fluoride and sealants, and providing individualized oral hygiene instruction services.

This growing career field is projected to be one of the 30 fastest growing occupations. The population growth combined with the increasing rate of retention of natural teeth will continue to stimulate the need for dental hygienist. For additional information on the profession of dental hygiene, contact the American Dental Hygienists’ Association (http://www.adha.org).

Degree Completion Track Admissions Requirements

The Bachelor of Science (BS) Degree completion may be considered by applicants who are already Registered Dental Hygienists (RDH).
If you are already a licensed dental hygienist, this program will allow you to complete a Bachelor of Science degree on line. A maximum of 12 qualified students are admitted to the Bachelor of Science Degree Completion (BSDC) program. In addition to the academic admission requirements, non-academic factors may be considered when selecting students for admission to the BSDC.

Required prerequisite program/courses:

1. Completion of a dental hygiene curriculum from a CODA accredited school of dental hygiene.
2. The Texas Core Curriculum and program prerequisites must be completed by the end of the spring semester of the year you are entering. Applicants must complete all core courses, plus program prerequisites of computer science and statistics. Statistics may be included in the core as one of the math requirements. For further information see the Texas General Education Core Web Center. Applicants are encouraged to seek advisement from their college counselors.

Application: Applicants must meet all qualifications and submit all required information by December 31. Transcripts containing fall courses must be submitted by Jan 15. Up to 6 credit hours may be in progress during the spring semester prior to admittance but must be completed and transcripts submitted by June 1.

Degree Completion Track Degree Requirements

Dental Hygiene Bachelor of Science degree is awarded at the successful conclusion of the program. Non-UTHSCSA graduates wishing to earn a BS degree must complete a minimum of 30 semester credit hours of elective courses in the program. UTHSCSA graduates (prior to 2005) who wish to earn a BS degree must complete 6-9 elective credit hours.

Degree Completion Track Sample Plan of Study

Students must complete 30 semester credit hours of elective courses from the list below:

<table>
<thead>
<tr>
<th>Fall Course Offerings</th>
</tr>
</thead>
<tbody>
<tr>
<td>DENH 3007 Preclinical Teaching Practicum 4</td>
</tr>
<tr>
<td>DENH 3015 Public Health Practicum 4</td>
</tr>
<tr>
<td>DENH 4018 Introduction To Research 3</td>
</tr>
<tr>
<td>DENH 4007 Clinical Administration Practicum 4</td>
</tr>
<tr>
<td>DENH 4025 Advanced Periodontics 3</td>
</tr>
<tr>
<td>DENH 4103 Health Promotions 3</td>
</tr>
<tr>
<td>EMSP 4007 Human Resource Development 3</td>
</tr>
<tr>
<td>EMSP 4008 Leadership Development 3</td>
</tr>
<tr>
<td>DENH 4023 Special Topics 1-3</td>
</tr>
<tr>
<td>DENH 4091 Independent Study 1-3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Spring Course Offerings</th>
</tr>
</thead>
<tbody>
<tr>
<td>DENH 3015 Public Health Practicum 4</td>
</tr>
<tr>
<td>DENH 3017 Clinical Teaching Practicum 4</td>
</tr>
<tr>
<td>DENH 4111 Current Issues In Dental Hygiene 3</td>
</tr>
<tr>
<td>DENH 4023 Special Topics 1-3</td>
</tr>
<tr>
<td>DENH 4024 Concepts And Practice In Teaching 3</td>
</tr>
</tbody>
</table>

Degree Completion Track Objectives/Program Outcomes

The Bachelor of Science Degree Completion program at the UT Health Science Center San Antonio is designed to allow dental hygienists who wish to further their knowledge an educational platform to do so, and continue working.

Outcomes

1. Development of professional skills to include: oral and written communication; critical thinking; problem solving; leadership
2. A more in depth understanding of the body of knowledge in the profession of dental hygiene
Graduate School of Biomedical Sciences

Brief History

The Graduate School of Biomedical Sciences (GSBS) was established in 1972 and currently hosts doctoral programs in Biochemistry, Biomedical Engineering, Cellular and Structural Biology, Microbiology and Immunology, Molecular Medicine, Nursing, Pharmacology, Physiology, Radiological Sciences and Translational Science. Masters degrees are offered in each of these disciplines, except Translational Science, as well as in Clinical Investigation and Toxicology and Dental Science. A Certificate in Translational Science (CTS) is also offered. These programmatic vehicles enable the Graduate School of Biomedical Sciences to assert its primary objective of educating students committed to the advancement of knowledge in contemporary areas of the biomedical sciences. A compelling aspect of graduate education in a health science center environment is the opportunity for graduate students to interface with health professionals with diverse technological and conceptual capabilities and perspectives in the biomedical sciences. The proof of accomplishment or enduring value of any educational process must be accounted in the demonstrated productivity and academic achievement of the graduates of the program. Without question, the doctoral and masters programs of the Graduate School of Biomedical Sciences have, during the past four decades, achieved outstanding success in their educational mission of preparing professional scientists who function well in academic, industrial, and government sectors.

Our educational and research faculty are drawn from all five schools of the UT Health Science Center San Antonio (http://www.uthscsa.edu). Those faculty members are training approximately 400 students in our combined graduate programs. There is a diversity of talent, but a unity of purpose in teaching and mentoring students in an exciting array of interdisciplinary and discipline-based fields of study and research. The academic programs offered by the GSBS are designed to provide a fundamental foundation of knowledge and scientific inquiry for our graduate students to ultimately become independent scientists and thinkers.

Mission Statement

The Graduate School of Biomedical Sciences provides an individualized, diverse and multidisciplinary learning environment for students to develop the knowledge, skills and creativity necessary to succeed in evolving biomedical disciplines.

Programs

The University of Texas Graduate School of Biomedical Sciences (http://gsbs.uthscsa.edu) at San Antonio offers graduate programs in the biomedical sciences leading to the Doctor of Philosophy degree in Biochemistry, Cellular and Structural Biology, Microbiology and Immunology, Molecular Medicine, Pharmacology and Physiology as well as in Radiological Sciences and Nursing Science. A Master of Science degree in Cellular & Structural Biology and Radiological Sciences is also offered. The graduate program leading to the Doctor of Philosophy degree in Nursing Science is conducted by the faculty of the Health Science Center’s School of Nursing and administered through the Graduate School of Biomedical Sciences (http://gsbs.uthscsa.edu). A Master of Science and Doctoral Program in Biomedical Engineering is jointly offered by the Graduate School of Biomedical Sciences (http://gsbs.uthscsa.edu) at the Health Science Center and the Graduate School at The University of Texas at San Antonio (UTSA) (http://www.utsa.edu/graduate). The Translational Science PhD (TS PhD) program is a unique interdisciplinary joint doctoral degree program involving four Texas Institutions. The joint degree institutions include the University of Texas Health Science Center at San Antonio, The University of Texas at San Antonio and The University of Texas at Austin. The University Of Texas School Of Public Health, San Antonio Regional Campus, serves as a collaborating institution for the TS PhD program. A Master’s program in Clinical Investigation is designed for interested selected graduate students and health care professionals in the design and conduct of clinical studies. A Certificate in Translational Science (CTS) is administered through the Master’s program in Clinical Investigation. Master’s degree programs in Dental Science is offered under the joint auspices of the university’s Dental School and the Graduate School of Biomedical Sciences. The program leading to the Doctor of Pharmacy degree is jointly administered by the College of Pharmacy of The University of Texas at Austin (http://www.utexas.edu/pharmacy) and the Graduate School of Biomedical Sciences (http://gsbs.uthscsa.edu). A graduate program in Toxicology is conducted by faculty in the School of Health Professions and administered by the Graduate School of Biomedical Sciences.

These programs provide opportunities for graduate students to become competent in a specialized field, to attain excellence in the conduct of research, and to gain an understanding of the interdisciplinary nature of biomedical sciences. One very special advantage of our graduate programs is that we operate in a prominent academic health science university where scientific inquiry can synergize with the healing professions to guide our science in seeking solutions to even the most vexing biomedical issues plaguing mankind. Detailed information about these graduate programs is provided in this Catalog.

Dual Degree Programs

Dual degree programs of study provide a mechanism for students to obtain a Ph.D. degree in addition to an M.D. or D.D.S. degree at the UT Health Science Center at San Antonio (http://www.uthscsa.edu). The purpose of these programs is to offer students the opportunity to pursue a course of study to become clinician-scientists who have not only depth of knowledge in clinical medicine or dentistry and in a basic science discipline, but also experience in research planning and execution. Students who take advantage of these programs have the opportunity to become scientists who are exceptionally qualified to apply specialized research competence to the resolution of clinical problems.

Those wishing to obtain both a professional degree and a graduate degree must satisfy the entrance requirements of both the School of Medicine (http://som.uthscsa.edu) or Dental School (http://dental.uthscsa.edu) and the Graduate School of Biomedical Sciences (http://gsbs.uthscsa.edu). At this time, admission to each school is accomplished separately. MCAT (http://www.aamc.org/students/mcat) or DAT (http://www.ada.org/dat.aspx) scores may be used in lieu of GRE (http://www.ets.org/portal/site/ets/menuitem.fab2360b1645a1de963a0779f1751509/?vgnextoid=b195e3b5164410VgnVCM10000022f95190RCRD) scores in these programs.

Through the interdigitation of the academic curricula in the professional school and the graduate school and of laboratory research for the dissertation, requirements for the dual degrees can be accomplished in a timely manner. In every instance, a specific graduate program or schedule shall be planned between the student, the appropriate Committee on Graduate Studies of the Graduate School, and the director of the
respective dual degree program, who in turn will coordinate curricular issues with the deans’ offices of the participating schools.

A combined MD Residency/PhD program is offered through Radiological Sciences. Physicians may complete their residency in radiology, psychiatry, or radiation oncology concomitant with completing requirements for a Ph.D. degree in Radiological Sciences that includes a training track in Human Imaging. Students in this program study and perform research within dedicated groups of medical physicists, biomedical imaging specialists, and biomedical researchers from specialties using imaging as a research tool. For more information, visit the Web site http://radsci.uthscsa.edu/index.php/Human_Imaging.

MD/PhD Program

The MD/PhD program expects students who are pursuing the dual degrees to maintain standards of academic excellence, to progress in a timely fashion toward both the MD and PhD degrees, and to maintain professionalism. The MD/PhD Program Advisory Committee therefore stipulates the academic requirements listed below. Failure to meet these requirements will result in dismissal from the dual degree program and termination of financial support from the MD/PhD program. The student’s standing with respect to either the School of Medicine (http://som.uthscsa.edu) or the Graduate School of Biomedical Sciences (http://gsbs.uthscsa.edu) is a separate matter to be pursued through the appropriate dean’s office.

1. While enrolled for the MD degree, students are required to maintain a minimum yearly grade point average of 3.00 and successfully complete two research rotations. In addition, dual degree students are required to pass the USMLE step 1 exam on the first attempt.

2. While enrolled as PhD students, dual degree students are required to maintain a GPA of 3.25 for each semester, they are enrolled in graduate school. MD/PhD students must have a cumulative GPA of 3.25 to be eligible to take the advancement to candidacy examination, prior to establishing the formal dissertation supervising committee.

3. Attendance at the monthly Bench-to-Bedside series and the annual retreat is required of all students throughout both the MD and PhD components of the program.

Additional information about dual degree programs is available from the Graduate Dean’s Office.

Committees on Graduate Studies (COGS)

Each program is supervised by a Committee on Graduate Studies (COGS) composed of members of the graduate faculty of that program. The COGS is responsible for establishing admission requirements specific to the program, recommending approval or denial of admission of applicants to the program, overseeing academic curricula, monitoring its students’ academic progress in didactic and research activities, attesting eligibility for admission to candidacy for a degree, and verifying to the Graduate Faculty Council that the student has fulfilled all requirements for the awarding of the degree. The COGS Chair is the administrative head of each program. The COGS Chair is the voting representative of the program on the Graduate Faculty Council and serves as the liaison officer between the COGS and the Graduate School Dean’s Office on all matters pertaining to applicant and student affairs. In several of the programs, one graduate faculty member serves as both Graduate Advisor and COGS Chair. The advisor acts as a counselor on academic matters and monitors the student’s progress in (a) successfully completing contingencies of admission and course requirements of the program, and (b) selecting an area of research specialization.

The Graduate Faculty Council has the responsibility to establish and maintain policies and regulations on matters of graduate education common to all programs administered by the Graduate School of Biomedical Sciences. These include such matters as general academic requirements for admission to graduate study and to candidacy, for continuation of studies, and awarding of a degree; standards of student professional conduct; grading systems; graduate program review; and criteria for thesis and dissertation research, its supervision, and its defense. Each COGS is responsible to the Graduate Faculty Council and submits recommendations on various graduate program matters, including the granting of a degree, to the Council for review and action.

The Dean of the Graduate School of Biomedical Sciences is the administrative head of the graduate programs and serves as the Chair of the Graduate Faculty Council. Ex-officio nonvoting members of the Council include the Dean, the Associate Dean(s) of the Graduate School, the Assistant Dean(s) of the Graduate School, the Director of Doctoral Studies in the School of Nursing, and the Registrar. The voting members of the Council consist of the COGS chairs of the programs in Biochemistry, Biomedical Engineering, Cellular and Structural Biology, Clinical Investigation, Microbiology and Immunology, Molecular Medicine, Nursing, Pharmacology, Physiology, Radiological Sciences and Translational Science in addition to one faculty representative from the graduate programs in Dentistry and Health Professions. A student representative can be elected from each of the following graduate student constituencies to serve as non-voting members of the Council: Graduate Student Association, dentistry, nursing, and health professions. Please see your department for an updated list of chairs and advisors.

Policies and Regulations

Requirements and Regulations

A student enrolled in the Graduate School of Biomedical Sciences is subject to all established requirements and regulations of the Health Science Center, the Graduate School, and the respective graduate programs. Exceptions to these rules and issues not covered by previously determined guidelines will be decided by the Graduate Faculty Council.
Attendance
Attendance requirements for regularly scheduled classes, laboratories, and clinic periods are the option and prerogative of the course instructor for that particular portion of the curriculum. The policy regarding attendance for each course is announced by the instructor at the first meeting.

Unexcused absences in courses in which attendance is required may be considered sufficient cause for failure. Excused absences may be granted by the course director in such cases as illness or personal emergency. Such leaves are considered on an individual basis, and verification of the reason for the absence may be required. It is the responsibility of the student to take the initiative in arranging with the faculty to make up work that is missed.

For student employees, refer to policy 4.3.5 in the Handbook of Operating Procedures.

Residence Required for Graduation
Each doctoral student must spend a minimum of two full 16-week semesters, or the equivalent, as a full-time student in residence at the UT Health Science Center San Antonio Graduate School of Biomedical Sciences. A candidate for the M.S. degree must be registered in the thesis course for at least one term; a candidate for the Ph.D. degree must be registered in the dissertation course for at least two terms. The residence requirement is based on the premise that the scholarship and proficiency necessary for achievement of a graduate degree in the biomedical sciences are best acquired through endeavors devoted wholly to study and research in the university environment.

Time Limits
The median time for completion of the M.S. degree and the Ph.D. degree is 3 years and 6 years, respectively, in the Graduate School of Biomedical Sciences.

Ph.D. Degree: Each program has a written policy on time-to-degree that will guide the student. Coursework or major examinations taken more than six years prior to the end of the candidate’s final semester may not be accepted for credit and, if necessary for the degree, must be repeated or specifically approved by the Committee on Graduate Studies.

M.S. Degree: Each program has a written policy on time-to-degree that will guide the student.

Credit Hour Requirements
The majority of the total semester credit hours taken for an M.S. or Ph.D. degree must be earned at the Health Science Center. Students are admitted to an MS, PhD, MD/PhD, DDS/PhD, or MD residency/PhD degree program. A minimum of 30 semester credit hours is required for an M.S. degree, and a minimum of 72 semester credit hours is required for a Ph.D. degree. A minimum of 72 semester credit hours is required for the Ph.D. component of the dual degree programs. Specific curriculum requirements vary depending on individual programs.

Ph.D. Degree: The student is required to demonstrate intellectual command of the subject area of the graduate program and capability to carry out independent and original investigation in the area. The specific curriculum requirements of each graduate program are defined in the individual programs. The curriculum of each student is supervised by the appropriate Committee on Graduate Studies.

M.S. Degree: A minimum of 30 semester credit hours is required for the M.S. degree. The student must successfully complete at least 12 semester credit hours of coursework in addition to credit hours awarded in Research, Thesis, and Seminar. With the exception of dual degree programs, all work for the M.S. degree is ordinarily done at the Health Science Center’s Graduate School of Biomedical Sciences.

A maximum of six semester hours of graduate course work from another institution may be applied for credit toward the Master’s degree, but only with the approval of the Committee on Graduate Studies in the student’s program. In cases where such credit is approved, the student must still meet the residence requirement for two full semesters. For students participating in a dual degree program, usually six semester hours in the medical or dental curriculum may be credited toward the M.S. degree. As a rule, these semester hours will come from survey courses in the student’s major area. Students in the graduate programs in Nursing should consult the Transfer of Credit policies under the General Policies for Graduate Nursing Program in the School of Nursing section.

Waiver of Courses: With the approval of the Committee on Graduate Studies, graduate credit hours from other universities may be accepted in lieu of required courses. In addition, the Committee may waive certain required courses, based on the student’s previous graduate course work. These hours will be accepted in the form of credit for the course material rather than by application of credit hours directly to the student’s transcript.

Foreign Language Requirement
Demonstration of proficiency in a foreign language is not required for either the M.S. or Ph.D. degree.

Ethics Course Requirement
All doctoral students must take the course INTD 6002 - Ethics in Research or its equivalent, as a requirement for graduation. Master of Science students are strongly encouraged to take the INTD 6002, but it is not a requirement for graduation.

Supervised Teaching
Each graduate program will decide if supervised teaching is required for a doctoral degree in its respective program. If supervised teaching is required, the student must enroll in a program-designated teaching course for a minimum of one semester credit and receive a grade of S (Satisfactory) or H (Honors).

Student Employment# Quantity-of-Work Rule
Full-time students are strongly counseled against accepting any outside employment. Before seeking outside employment, graduate students are urged to discuss their plans with their faculty advisor.

Full-time graduate students may be awarded stipends as teaching or graduate research assistants when funds are available. Student stipends funded from federal sources are governed by federal regulations. Full-time students are discouraged from taking employment; stipends serve as scholarships to meet financial need.

<table>
<thead>
<tr>
<th>Registered for x Graduate Hours</th>
<th>Maximum Hours Per Week Permitted to Work</th>
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<tbody>
<tr>
<td>15</td>
<td>0-0.00%</td>
</tr>
<tr>
<td>14</td>
<td>3-7.50%</td>
</tr>
<tr>
<td>13</td>
<td>6-15.00%</td>
</tr>
<tr>
<td>12</td>
<td>10-25.00%</td>
</tr>
<tr>
<td>11</td>
<td>13-32.50%</td>
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</tbody>
</table>
A student must register each semester and summer session that he or she is enrolled in a course. This includes courses in Research, Thesis, and Dissertation. No student will be of direct benefit in meeting the graduate degree requirements. The committee should then recommend an appropriate part-time rate of pay consistent with the objectives of the graduate program in general with due consideration to the pay rates of other graduate students. Departments requesting employment of a part-time graduate student outside the supervising department (and in an area unrelated to the student’s academic program) should determine the number of hours for which the student is registered prior to contacting the Office of Human Resources regarding appointment of such students. This will enable the Office of Human Resources to provide proper salary rate information.

**Records**

**Registration**

The Office of the Registrar (http://students.uthscsa.edu/registrar) will announce and provide the registration process to all students, Committee on Graduate Studies (COGS) Chairs, and their assistants prior to the start of each semester. For individual registration concerns, confer with your program’s Committee on Graduate Studies (COGS) Chair.

A student must register each semester and summer session that he or she is enrolled in a course. This includes courses in Research, Thesis, and Dissertation. No student can receive credit for a course for which he or she has not registered.

**Consequences for Non-Payment of Tuition and Fees**

In graduate programs in which students are responsible for paying tuition and fees, such payment must be made by the census date. These students are responsible for paying their tuition and fees by the census date (which is always the 12th class day of the spring and fall semesters, or the 7th class day of the summer term) of each semester for which they are registered. For details on consequences of non-payment of tuition and fees, see Student Enrollment Policy and Tuition & Fees. International students must also contact the Office of International Services. Additional actions also may be taken by the Graduate School. They are:

- Discontinued enrolment in the graduate program that results in termination with loss of pay, benefits, and privileges.
- Necessity to re-apply for admission for the following semester.
- A bar against readmission for the student.
- Initiation of loan repayments, if a student has loans.
- Potential loss of visa status and deportation for international students.
- Withholding of the student’s grades and official transcript.
- Withholding of a degree to which the student otherwise would be entitled.

**Full-Time Status**

The minimum half-time course load for a semester is 4.5 semester hours and 3.0 in the summer. The minimum full-time course load for a semester is 9 semester hours and for a summer session is 6 semester hours. The maximum load is individually determined by the student’s faculty advisor and the Committee on Graduate Studies involved. If a student is employed as a teaching assistant or graduate research assistant, research assistant, or tutor, the course load may be reduced correspondingly.

Doctoral students must be enrolled for a minimum of 9 semester credit hours each fall and spring semester and 6 semester credit hours each summer term, in order to be considered full-time doctoral graduate students.

Master’s students must be enrolled for a minimum of 6 semester credit hours each fall and spring semester and 3 semester credit hours each summer term, in order to be considered full-time master’s graduate students.

**Adding Courses**

Students may add courses during official add days as designated by the Office of the Registrar (http://students.uthscsa.edu/registrar) each semester. Students are not permitted to add classes to their schedules after the census date, which is typically the 12th class day of the spring and fall semesters, or the 7th class day of the summer term.

**Dropping Courses**

A student who is not on academic probation may drop a course at any time during the semester provided the student is passing the course at the time and has obtained the signed approval of the course director and COGS chair.

The Registrar will record the symbol W if a course is dropped before the first evaluation period in that course. After that time, the course director will assign a grade of either WP (Withdrew Passing) or WF (Withdraw Failing). A student on academic probation will not be allowed to drop a course.

In case of illness and with the consent of the Dean, a student may drop a course without penalty at any time prior to the beginning of final examinations.

**Transfer of Credit**

Credit for coursework taken at another institution may be transferred if the student submits a Course Waiver/Substitution Request Form available in the Registrar’s Office. The same procedure should also be used to request...
transfer of credit from other schools within the Health Science Center. The transfer of credit is subject to approval by the Committee on Graduate Studies of the program in which the student is enrolled and by the Dean or the Dean’s designee.

Students in M.S. programs may apply no more than 6 semester hours of transferred credit toward satisfaction of the 30 semester credit hours required for the degree. However, the request form should list all courses taken elsewhere, which are approved by the Committee on Graduate Studies to satisfy the course requirements for the M.S. degree set forth by the program in which the student is enrolled.

Students in the Ph.D. programs are required to fulfill a minimum of 72 semester credit hours of coursework. Transfer of credit for Ph.D. students may be requested to provide evidence on the student’s transcript of the completion of courses taken elsewhere which are approved by the Committee on Graduate Studies (1) to satisfy the course requirements for the Ph.D. degree or (2) to be appropriate to the specific course of study of the individual graduate student.

**Registration for Thesis**

Students in M.S. programs may register for the Thesis course XXXX 6098 where XXXX represents one of the following: BIOC, CLS, CSBL, DENH, DIAG, ENDO, MEDI, MICR, MMED, NURS, ORTO, PERI, PHAR, PHYL, PROS, or RADI. Registration for Thesis is only permitted after the following three actions have been taken:

1. Approval of admission to candidacy for the M.S. degree by the Dean;
2. Approval of the thesis research proposal by the Committee on Graduate Studies of the program and the Dean;
3. Appointment of a Supervising Committee for the thesis research by the Committee on Graduate Studies of the program and the Dean.

A candidate for the M.S. degree must register for the thesis course for at least one term.

**Registration for Dissertation**

Students in Ph.D. programs may register for the Dissertation course XXXX 6099 where XXXX represents one of the following: BIOC, CLS, CSBL, MICR, MMED, NURS, ORTO, PHAR, PHYL, or RADI. Registration for Dissertation is only permitted after the following three actions have been taken:

1. Approval of admission to candidacy for the Ph.D. degree by the Dean;
2. Approval of the dissertation research proposal by the Committee on Graduate Studies of the program and the Dean;
3. Approval of the membership of the candidate’s Supervising Committee by the Committee on Graduate Studies of the program and the Dean.

A candidate for the Ph.D. degree must register for the Dissertation course for at least two terms. Only one of the terms may be a summer session.

**Registration for Audit**

Permission to audit one or more courses is sometimes granted. Auditing conveys only the privilege of observing and excludes handing in papers or taking part in a class discussion, laboratory exercises, or fieldwork. No grade is given and no credit is reported. Graduate students must obtain permission to register to audit a course from the course director and the COGS chair of the program in which they are enrolled. Others who wish to register to audit a graduate course must apply to the Associate Dean of the Graduate School for admission as a Non-Degree Student.

**Grading System**

Credit hours are earned in the graduate programs only for the grades A, B, C, and S. All letter grades except H and S are included in the computation of the grade point average. Grade points are assigned as follows:

- A = 4 (above average graduate work)
- B = 3 (average graduate work)
- C = 2 (below average graduate work)
- D = 1 (failing graduate work)
- F = 0 (failing graduate work)

Grades of D and F are not acceptable for graduate credit. If a course is repeated, the last grade earned is used in computing the cumulative grade point average.

A grade of S (satisfactory), U (unsatisfactory), or H (honors) is not included in the computation of the grade point average. These grades are given in the following courses in all programs: Supervised Teaching, Research, Thesis, and Dissertation. Grades for Thesis or Dissertation hours are reported as “In Progress” (IP) until the work is completed. S/U and/or H (Honors) may also be given in specific courses in specific programs.

Other symbols used in reporting the standing of students in their classes are: WP and WF (see “Withdrawal”), W (course dropped while receiving a passing grade with no penalty), and I (incomplete). The course director will record the symbol W if a course is dropped before the first evaluation period in that course. After that time, the course director will assign a grade of either WP (withdrew passing) or WF (withdrew failing).

An I is used only to report cases in which the student has not completed all of the assignments and/or examinations before the conclusion of the course. Unless the student has been granted a leave of absence, all work must be completed within one year, at which time the grade of I (incomplete) will be changed to the appropriate letter grade.

The grading system described above applies to courses in the medical and dental curricula in which graduate students may be enrolled as well as to courses in the graduate programs. Grades for courses taken to satisfy a contingency or condition of admission or those transferred for credit are not included in computation of the grade point average.

**Grade Appeals**

The student requesting a change of grade bears the burden of proof in establishing the appropriateness of any grade change requested. Thus, the responsibility of providing sufficient input to justify the change of grade requested by the student is to be borne by the student.

1. To initiate a change of grade request the student should first try to counsel with the instructor(s) of the course to address the appropriateness of the grade received in the course.

2. If no satisfactory resolution is reached, the student should attempt to resolve the matter by consultation with the appropriate school and the faculty member.

3. If no satisfactory resolution has been reached through this consultation and the student still believes that he/she has a bias for a grievance, the student shall then initiate the formal grade appeal procedure as follows:
Continuation, Probation, and Dismissal

Continuation in the graduate programs is dependent upon three requirements:

1. Satisfactory progress in removing any conditions imposed at the time of admission;
2. Maintenance of a minimum cumulative B (3.0) average for all courses taken while enrolled in the Graduate School of Biomedical Sciences. A student whose cumulative grade point average falls below 3.0 will be placed on probation and warned by the Dean of the Graduate School that continuation in the graduate program is in jeopardy. A student will remain on probation as long as her or his cumulative GPA is below 3.0. While on probation, a student must maintain a B average in those courses for which he or she is registered or be considered for dismissal by the Committee on Graduate Studies. Except in the case of illness, permission to drop courses will not be given while the student is on probation. A student on probation may not be admitted to candidacy or awarded a degree. Grades achieved during enrollment as a non-degree student are not used to determine academic probation.
3. A satisfactory rate of progress toward the degree as determined by the Committee on Graduate Studies is required throughout the student’s enrollment. The Committee, with the Dean’s consent, may terminate a student’s enrollment for lack of satisfactory progress.

Withdrawal

Permission for withdrawal from a graduate program may be granted by the Dean upon concurrence by the Committee on Graduate Studies of the program. The student who wishes to withdraw must complete and sign the Student Clearance Form (available from the Registrar’s Office, Room 319L MED), submit the form for signature to the COGS Chair and the Graduate School dean, and then obtain authorized signature clearance from each area listed on the lower portion of the form.

In the case of withdrawal before the end of the semester or summer session (and thus the dropping of all courses), the grading symbol WP or WF will be recorded for each course not completed, depending on the student’s standing on the last day of enrollment. In the case of withdrawal at the end of a semester or summer session, the appropriate grading symbol will be recorded for each completed course.

An application for readmission by a student who has previously withdrawn is subject to the same requirements, procedures, and acceptance considerations that apply to first-time applicants.

Leave of Absence

Permission for a leave of absence from a graduate program for a maximum period of one year may be granted by the Dean subject to prior approval by the Committee on Graduate Studies of the program. Such permission will be granted only for extenuating circumstances and indicates that the student will be allowed to return to the program within the one-year time limit. There is no guarantee that a stipend will be reinstated upon return.

The student should make a written request for a leave of absence to the Chair of the Committee on Graduate Studies for her/his program, including the reasons for the request and the expected time of return. If the request for leave of absence is approved, the student is so notified by a letter from the Dean and provided by the Graduate School Dean’s Office. The student must then complete a Student Clearance Form available from the Registrar’s Office (319L MED). The student should then complete and sign the upper portion of this Form, obtain the signatures of the COGS Chair and the Graduate School dean, and obtain authorized signature clearance from each area listed on the form. The student should also drop any courses for which they are currently enrolled.

Another type of leave of absence is an Administration-Initiated Student Leave which is described under the General Academic Policies of this Catalog.

In Absentia (INTD 1000)

In lieu of taking a leave of absence, a student may opt to enroll In Absentia for up to two consecutive semesters. Enrolling In Absentia essentially creates a placeholder that will allow the student’s matriculation record to remain active. It will not, however, afford an individual the status of an officially enrolled student. Additionally, a $25 fee is charged for enrolling In Absentia.
Students not prepared to return as an officially enrolled student at the end of their second consecutive term of In Absentia enrollment should follow the above procedures for requesting a leave of absence.

**In Absentia (INTD 1000)**

Students must be registered for the semester in which they graduate and all fees and tuition apply. A special arrangement is made for students who defend the dissertation or thesis after the last Graduate Faculty Council (GFC) meeting of the semester and before the first class day of the following semester.

The student who expects to defend the dissertation or thesis in this interval should register for one credit hour for the next semester. Following the successful defense of the dissertation, the student may drop the one credit hour and register In Absentia for the coming semester. This must be accomplished before the first class day of the new semester. Registration In Absentia should be designated as zero credit hours and the student will be charged a $25 fee.

**Non-registration**

A student who fails to register for two or more consecutive semesters and does not elect to take a leave of absence or to enroll In Absentia will be considered for dismissal from the program. The Registrar will notify the Committee on Graduate Studies and the Dean of the student’s failure to register.

If dismissed, the student may reapply for admission. Such application is subject to the same requirements, procedures, and acceptance considerations that apply to first-time applicants.

**Transfer between Graduate Programs**

Any student who wishes to change the course of study from one graduate program to another must submit an application to that program, and the application is subject to the same requirements, procedures, and acceptance considerations that apply to other applicants to the program. Students who are considering such a transfer must have an interview with the Dean. A Change of Program form must be obtained from the Registrar’s Office and submitted in order to complete the process.

**Graduation**

The degree of Doctor of Philosophy is awarded by the Board of Regents upon the satisfactory completion of a minimum of 72* semester credit hours, the satisfactory completion of a prescribed program of study as documented by the Committee on Graduate Studies, recommendation of the Graduate Faculty Council, and certification of the candidate by the Dean and President to the Board of Regents.

The degree of Master of Science is awarded upon the satisfactory completion of a minimum of 30* semester hours, the requirements particular to each graduate program as documented by the Committee on Graduate Studies, recommendation of the Graduate Faculty Council, and certification of the candidate by the Dean and President to the Board of Regents.

*Some programs may require additional hours

**Commencement**

Graduation exercises are held each year in May.

Candidates for graduation of the Health Professions master’s program will participate in the School of Health Professions Commencement.

The Graduate School Dean will be present to address the students and participate in the presentation of diplomas. Candidates for graduation in the doctoral graduate nursing program and the master’s dental programs also participate in the Graduate School Commencement.

**Sequential Procedures**

**Doctor of Philosophy degree**

**Phase I - From matriculation through admission to candidacy**

1. **Assignment of faculty advisor:** The Committee on Graduate Studies assigns a member of the graduate faculty as advisor to each student entering a program. The advisor serves as counselor on academic matters and monitors the student’s progress in (a) successfully completing contingencies of admission and course requirements of the program and (b) selecting an area of research specialization.

2. **Approval of research advisor:** When the student selects the area of research specialization and the faculty member to serve as research preceptor, the Committee on Graduate Studies reviews the proposed selections. If the selections are approved, the faculty member is designated by the Committee on Graduate Studies as the student’s research advisor in concert with, or in replacement of, the original faculty advisor. The faculty advisor may, of course, be selected as the research advisor. During this period, the student’s potential for productive and independent investigation is assessed by the research advisor.

3. **Qualifying examination:** The Qualifying Examination is comprehensive in nature and may be written, oral, or both. The Committee on Graduate Studies determines the format of the examination and the composition of the Qualifying Examination Committee, with the proviso that one member must not be one of the graduate faculty of the student’s program. The Qualifying Examination Committee administers the examination(s), evaluates the student’s performance, and reports its judgment on whether the student passed or failed to the Committee on Graduate Studies.

4. **Admission to candidacy:** Recommendation by the Committee on Graduate Studies that the student be admitted to candidacy for the Doctor of Philosophy degree requires the following:
   A. Satisfactory completion of all required courses;
   B. Cumulative grade point average of at least 3.0 in all coursework undertaken since matriculation in the program;
   C. Report by the Qualifying Examination Committee that the student has passed the examination;
   D. Report by the student’s research advisor and other graduate faculty members, as appropriate, that the student has clearly evidenced the potential for productive and independent investigation.

If, in its overall evaluation of the eligibility of the student for admission to candidacy, the Committee on Graduate Studies is in favor of admission, it shall submit a Petition of Admission to Candidacy Form (GSBS Form 32) to the Dean for approval with documentation of satisfaction of the requirements listed above. Each research advisor is required to sign the form to certify her/his view of the student’s potential for productive and independent investigation. The Dean may approve or disapprove the recommendation or request further documentation. When the Dean has approved admission of the student to candidacy, the candidate enters Phase II of the program.
Phase II - From Admission to candidacy through granting of the degree

1. **Selection of the supervising professor:** No later than three months after the student’s admission to candidacy, the member of the graduate faculty of the program who will serve as the supervising professor of the dissertation research shall be decided upon by mutual agreement among the candidate, the faculty member, and the Committee on Graduate Studies. Normally, the research advisor who guided the student’s preliminary research activities continues as supervising professor, but this arrangement is not obligatory.

2. **Draft of dissertation research proposal:** The candidate shall identify a research question that will serve as a focus for the dissertation research. The candidate shall prepare a draft of a research proposal that specifies the research to be undertaken, its significance in the scientific field, and the general methods and techniques to be utilized. The proposal shall be submitted to the supervising professor for review and modification. Subsequent drafts of the proposal should then be submitted for review and modification to other faculty members who have knowledge and expertise in the area of the research proposal and who have been selected by mutual agreement among the candidate, the supervising professor, and the Committee on Graduate Studies. The final draft of the dissertation research proposal is subject to review and approval by the Committee on Graduate Studies, which may specifically designate a group of faculty members to review the proposal draft(s).

3. **Composition of the dissertation supervising committee:** After approval of the proposal by the Committee on Graduate Studies, the supervising professor and the candidate shall make recommendations to the Committee on Graduate Studies regarding the composition of the Supervising Committee for the dissertation research. The Supervising Committee must consist of at least five persons, as follows:
   
   A. The supervising professor, also a member of the program’s graduate faculty, designated as Supervising Professor and Chair of the Supervising Committee;
   
   B. One member must be from outside the Health Science Center and must be an expert in the field of the proposed dissertation;
   
   C. Two members must be members of the graduate faculty of the program;
   
   D. One member must be a faculty member of the Health Science Center in a supporting area outside the program but need not necessarily be a member of the graduate faculty.

   i The Committee on Graduate Studies may nominate additional members in categories (b), (c), and (d) if necessary. Nomination is contingent upon the willingness of the designated person to serve on the Supervising Committee. The composition of the Supervising Committee should, in principle, provide a group of research scientists who constitute an important resource to the candidate and her or his dissertation research. Their functions are, with the Supervising Professor, to guide the candidate through the dissertation research and to certify to the Committee on Graduate Studies that the candidate has, in fact, carried out a meritorious research investigation of the caliber appropriate for a Ph.D. dissertation and, in their opinion, defended it satisfactorily. Upon selection of the supervising committee, the chair of the Committee on Graduate Studies (COGS) will submit to the Graduate School Dean’s Office a completed GSBS Form 30.

4. **Approval of the dissertation proposal and supervising committee:** The Graduate Faculty Council and the Dean will review the recommendation of COGS on the proposal and supervising committee. After approval by the Dean of both the proposal and the Supervising Committee, the candidate may register for their respective program’s Dissertation course. Any subsequent change in the Composition of the Supervising Committee must be approved by the COGS and approved by the Dean, who will then report the change at a regularly scheduled GFC meeting.

5. **Supervision of the dissertation research:** Within one month after formal approval of the Supervising Committee, the Supervising Professor shall convene the Supervising Committee to discuss with the candidate the progress of the dissertation research and the projected future work. At appropriate intervals thereafter (at least every six months), the Supervising Committee shall meet with the candidate for presentation of progress reports (written and/or oral), so that current status of the research may be evaluated and direction of future work planned. If the external Committee member is unable to attend these meetings, it is the responsibility of the candidate and the Supervising Professor to provide this member with progress reports for review and recommendations. It is essential that the Supervising Committee be fully informed of the research progress and be able to provide continued supervision throughout and that the Committee on Graduate Studies receive reports of the research progress from the Supervising Committee after each of its meetings with the candidate. The Supervising Committee and/or the Committee on Graduate Studies may approve or direct alterations in the research plans within the general context of the dissertation proposal. Major changes in the candidate’s research status (such as selection of a new Supervising Professor, new Supervising Committee members, or a new research question) must be reported to the Graduate Faculty Council and the Dean for consideration.

6. **Submission of the dissertation:** After agreement by the members of the Supervising Committee that the research has progressed sufficiently for submission of the dissertation, a draft of the dissertation shall be submitted to the Supervising Professor and then to all other members of the Supervising Committee for review and recommendations for modification of content. An electronic copy will also be submitted to the Graduate School Dean’s Office for review of formatting. It is the responsibility of the candidate to follow the guidelines of preparation of the dissertation provided by the Graduate School Dean’s Office in the *Instructions for Preparation and Submission of Electronic Theses, Dissertations and Dissertation Abstracts*. If the alternative chapter format is preferred, the candidate must obtain approval for such format from the Supervising Committee and the Committee on Graduate Studies. The candidate also has the responsibility to ensure adequate time for review and modification of the dissertation in accordance with the schedule of deadlines provided each term by the Graduate School Dean’s Office.

7. **Final oral examination:** When the Supervising Committee judges the dissertation to be suitable for defense, the Supervising Professor shall be responsible for submitting a signed *Request for Final Oral Examination Form* (GSBS Form 40) through the Committee on Graduate Studies to the Dean and request scheduling of the Final Oral Examination. Three copies of the Abstract and Vitae

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*Recommendation for Approval of Dissertation Research Proposal and Supervising Committee.* The student must provide the Graduate School Dean’s Office an electronic copy of their dissertation proposal to accompany GSBS Form 30.
Phase I - From matriculation to admission to candidacy

1. Assignment of faculty advisor: The Committee on Graduate Studies assigns a member of the graduate faculty as advisor to each student entering a program. The advisor serves as counselor on academic matters and monitors the student's progress in
   A. successfully completing contingencies of admission and course requirements of the program and
   B. selecting an area of research specialization.

2. Approval of research advisor: When the student selects the area of research specialization and the faculty member to serve as research preceptor, the Committee on Graduate Studies reviews the proposed selections. If the selections are approved, the faculty member is designated as the Committee on Graduate Studies as the student's research advisor in concert with, or in replacement of, the original faculty advisor. The faculty advisor may, of course, be selected as the research advisor. During this period, the student's potential for productive and independent investigation is assessed by the research advisor.

3. Qualifying examination: The Graduate School of Biomedical Sciences does not require a comprehensive Qualifying Examination prior to admission to candidacy for the M.S. degree. However, the Committee on Graduate Studies may require the student to pass a written and/or oral Qualifying Examination prior to consideration for admission to candidacy, or it may waive such examination.

4. Admission to candidacy: Recommendation by the Committee on Graduate Studies that the student be admitted to candidacy for the Master of Science degree requires the following:
   A. Satisfactory completion of all required courses;
   B. Cumulative grade point average of at least 3.0 in all coursework undertaken since matriculation in the program;
   C. Report by the Qualifying Examination Committee that the students passed the examination or that the examination has been waived;
   D. Report by the student's research advisor and other graduate faculty members, as appropriate, that the student has clearly evidenced the potential for productive and independent investigation. GSBS Form 31 should be submitted to the Graduate School Dean's Office for approval.

Phase II - From Admission to candidacy through granting of the degree

1. Selection of the supervising professor: No later than three months after the student's admission to candidacy, the member of the graduate faculty of the program who will serve as the supervising professor of the thesis research shall be decided upon by mutual agreement among the candidate, the faculty member, and the Committee on Graduate Studies. Normally, the research advisor who guided the student's preliminary research activities continues as supervising professor, but this arrangement is not obligatory.

2. Draft of thesis research proposal: No later than three months after admission to candidacy, the candidate shall submit a draft of a proposal for the thesis research to the supervising professor for review and modification. Subsequent drafts of the proposal may then be submitted for review and modification to other faculty members who have knowledge and expertise in the area of the research proposal. After approval of the final proposal draft by the supervising professor, the proposal is submitted to the Committee on Graduate Studies for consideration of approval.
3. **Appointment of the supervising committee:** After approval of the thesis proposal by the Committee on Graduate Studies, the supervising professor and the candidate shall make recommendations to the Committee on Graduate Studies regarding the composition of the Supervising Committee for the thesis research. The Supervising Committee must consist of at least four persons, as follows:

   A. The supervising professor, also a member of the program’s graduate faculty, designated as Supervising Professor and Chair of the Supervising Committee;
   
   B. Two members must be members of the graduate faculty of the program;
   
   C. One member must be a faculty member of the Health Science Center in a supporting area outside the program or a person outside the Health Science Center who is an expert in the field of the proposed thesis.

   i. Immediately upon selection of the Supervising Committee, the Chair of the Committee on Graduate Studies will submit to the Graduate School Dean’s Office a completed GSBS Form 42, Composition of Supervising Committee-The Master of Science Degree. A copy of the proposed work in electronic form must accompany the form. Each member of the Supervising Committee is required to sign the form to certify her/his approval to serve on the committee. Any subsequent change in the composition of the Supervising Committee must be approved by the COGS and approved by the Dean.

   ii. The composition of the Supervising Committee should, in principle, provide a group of research scientists who constitute an important resource to the candidate and her or his thesis research. Their functions are, with the Supervising Professor, to guide the candidate through the thesis research and to certify to the Committee on Graduate Studies that the candidate has, in fact, carried out a meritorious research investigation of the caliber appropriate for an M.S. thesis and, in their opinion, defended it satisfactorily.

4. **Supervision of the thesis research:** Within one month after appointment of the Supervising Committee, the Supervising Professor shall convene the Supervising Committee to discuss with the candidate the progress of the thesis research and the projected future work. At appropriate intervals thereafter, the Supervising Committee shall meet with the candidate for progress reports (written and/or oral) so that current status of the research may be evaluated and direction of future work planned. It is essential that the Supervising Committee be fully informed of the research progress and be able to provide continued supervision throughout and that the Committee on Graduate Studies receive reports of the research progress from the Supervising Committee after each of its meetings with the candidate.

5. **Submission of the thesis:** After members of the Supervising Committee agree that the research has progressed sufficiently for submission of the thesis, a draft of the thesis shall be submitted to the Supervising Professor and then to the other members of the Supervising Committee for review and recommendations for modification of content. An electronic copy will also be submitted to the Graduate School Dean’s Office for review of formatting and recommendations for modification. It is the responsibility of the candidate to follow the guidelines for preparation of the thesis provided by the Graduate School Dean’s Office in the Instructions for Preparation and Submission of Electronic Theses, Dissertations and Dissertation Abstracts. If an alternative chapter format is preferable, the candidate must obtain approval for such format from the Supervising Committee and the Committee on Graduate Studies. The candidate also has the responsibility to ensure adequate time for review and modification of the thesis.

6. **Final oral examination:** The Graduate School requires that the thesis be defended by the candidate in a Final Oral Examination conducted by the Supervising Committee; the format in which this examination is conducted (see Options 1 and 2 below) shall be decided by the Committee on Graduate Studies and it is recommended that it be uniform for all M.S. candidates in that program.

   A. **Option 1:** If the Committee on Graduate Studies does elect to require that the thesis be defended in formal Final Oral Examination scheduled through the Graduate School Dean’s Office and open to all interested persons, then the procedures in number 11 (see Phase II of Doctor of Philosophy Degree) for Ph.D. candidates should be followed.

   B. **Option 2:** If the Committee on Graduate Studies chooses a less formal format, without public notification through the Graduate School Dean’s Office, the following procedures apply. The Request for Final Oral Examination Form (GSBS Form 40), signed by the Supervising Committee members, should be submitted to the Chair of the Committee on Graduate Studies, who shall indicate approval by signature and transmit the Request to the Graduate School Dean’s Office for approval by the Dean.

   C. Three copies of the Abstract and the Vita should be submitted with the request for the candidate’s file in their respective department, the Registrar’s Office, and the Graduate School Dean’s Office.

   D. The Supervising Committee members vote on the candidate’s success or failure on the Examination; more than one vote for failure signifies failure on the Final Oral Examination. The Supervising Committee submits the Report on Final Oral Examination (GSBS Form 41) to the Committee on Graduate Studies. In the event of a failing performance by the candidate, the Supervising Committee shall also submit to the Committee on Graduate Studies a recommendation regarding remedial action or further examinations; in such cases, the Committee on Graduate Studies shall decide upon the recommendation or other action to be taken. In the event of a successful performance by the candidate, the Committee on Graduate Studies shall vote on whether to approve the recommendation by the Supervising Committee for granting the degree.

7. **Recommendation for granting of the degree:** If the Committee on Graduate Studies approves the favorable recommendation by the Supervising Committee, the Chair of the Committee on Graduate Studies shall so indicate by signature on the Report on Final Oral Examination and submit the Report to the Graduate Faculty Council for consideration. The candidate shall submit to the Graduate School Dean’s Office the final electronic version of the thesis either by e-mail or on a disk or USB drive. The thesis Approval Page signed by the Supervising Professor and Committee members must also be submitted to the Graduate School Dean’s Office. When the Report, the Approval Page and the electronic thesis have all been received in the Graduate School Dean’s Office, the Graduate Faculty Council will consider the recommendation for granting the degree.
Biochemistry Admissions Requirements

Applicants are required to have a minimum of a Bachelor’s degree from an accredited institution and a minimum GPA of 3.0/4.0. Applicants should have received credit for courses taken in:

- Biology \(^1\) 2 yrs. as required for science majors
- Chemistry \(^1\) 1 yr. general chemistry and organic chemistry
- Physics 1 yr.
- Mathematics minimum of 1 semester of calculus

\(^1\) courses should include laboratory experience

All applicants must take the Graduate Record Examination (GRE). The GRE must be taken within the last 5 years and the TOEFL within the last 2 years. There is no minimum score required for the GRE. In addition to the GRE, international applicants are also required to take one of two English proficiency tests: Test of English as a Foreign Language (TOEFL) or the International English Language Testing System (IELTS: Academic module only). The minimum required scores for the TOEFL are 560 for the paper test and 68 for the internet test. The minimum score on the academic IELTS is 6.5.

Three letters of recommendation are required. The applicant must submit 3 essays stating the reasons for your interest in the program, a description of your professional goals and an outline of your undergraduate, industrial or summer research. On campus recruitment interviews are conducted during February and March. Phone interviews for international application occur in January and February.

The admission committee makes its decision based on the candidate’s research experience, grade point average, personal statement, GRE score, interviews, letters of recommendations, and how the candidate matches up against other interested applicants.

Biochemistry Degree Requirements

A minimum of 72 credit hours and a minimum overall GPA of 3.0 is required for the Ph.D. degree. In addition, all doctoral candidates must register for the BIOC 7099 Dissertation for at least two semesters in order to graduate; only one of the terms may be a summer session. The student is required to demonstrate intellectual command of the subject area of the graduate program and capability to carry out independent and original investigation in the area. The student must successfully defend a dissertation and be recommended by their program COGS for approval of their degree to the Dean of the Graduate School of Biomedical Sciences.

Biochemistry Plans of Study

Students Entering 2013 and Alternate Years Thereafter

### First Year

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**Total Credit Hours:** 113.0-116.0

1 Journal club will include Contemporary Biochemistry

**Students Entering in 2014 and Alternate Years Thereafter**

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**Total Credit Hours:** 113.0-116.0
Biochemistry Objectives/Program Outcomes

1. Review/interpret research literature
2. Communicate effectively in writing
3. Communicate effectively in verbal presentations
4. Display potential for conducting independent research

Master of Science (MS)

The master’s degree is offered only under special circumstances upon recommendation by the program COGS and approval by the Graduate Dean.

The graduate program in Biochemistry offers students the training necessary for them to conduct independent biochemical research in an academic, industrial, or clinical environment. The Biochemistry curriculum is designed to provide a synergistic series of formal courses, seminars, teaching opportunities, and individualized biochemical research experiences in the laboratories of participating faculty. Students are encouraged to broaden their scientific experience by taking course in other biomedical sciences tracks. The program offers both a master’s degree and doctoral degree.

Biochemistry Admissions Requirements

Applicants are required to have a minimum of a Bachelor’s degree from an accredited institution and a minimum GPA of 3.0/4.0. Applicants should have received credit for courses taken in:

* Biology^1 2 yrs. as required for science majors
* Chemistry^1 1 yr. general chemistry and organic chemistry
* Physics 1 yr.
* Mathematics minimum of 1 semester of calculus

^1 courses should include laboratory experience

All applicants must take the Graduate Record Examination (GRE). The GRE must be taken within the last 5 years and the TOEFL within the last 2 years. There is no minimum score required for the GRE.

In addition to the GRE, international applicants are also required to take one of two English proficiency tests: Test of English as a Foreign Language (TOEFL) or the International English Language Testing System (IELTS: Academic module only). The minimum required scores for the TOEFL are 560 for the paper test and 68 for the internet test. The minimum score on the academic IELTS is 6.5.

Three letters of recommendation and a personal interview are required. The applicant must submit 3 essays stating the reasons for your interest in the program, a description of your professional goals and an outline of your undergraduate, industrial or summer research.

The admission committee makes its decision based on the candidate’s research experience, grade point average, personal statement, GRE score, interviews, letters of recommendations, and how the candidate matches up against other interested applicants.

Biochemistry Degree Requirements

A minimum of 30 credit hours and a minimum overall GPA of 3.0 is required for the M.S. degree. In addition, all master’s candidates must register for BIOC 6098 Thesis for at least one semester in order to graduate. The student must successfully defend a thesis and be recommended by their program COGS for approval of their degree to the Dean of the Graduate School of Biomedical Sciences.

Biochemistry Master’s Plans of Study

Students entering 2013 and alternate years thereafter

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Spring

| BIOC 6036 | Macromolecular Structure & Mechanism | 2 |
| BIOC 5085 | Biophysical Methods In Biology | 4 |
| INTD 5008 | Lab Rotations | 2 |
| INTD 6002 | Ethics In Research | 0.5 |
| Electives | 2.5 |

Summer

| BIOC 6097 | Research | 1.9 |

Second Year

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<td><strong>Second Year</strong></td>
<td><strong>Fall</strong></td>
<td>BIOC 6029</td>
<td>MBB Journal Club and Student Research Presentations</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>BIOC 6097</td>
<td>Research</td>
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<tr>
<td></td>
<td></td>
<td>Electives</td>
<td></td>
<td>2-3</td>
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<tr>
<td></td>
<td><strong>Spring</strong></td>
<td>BIOC 6036</td>
<td>Macromolecular Structure &amp; Mechanism</td>
<td>2</td>
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<tr>
<td></td>
<td></td>
<td>BIOC 5085</td>
<td>Biophysical Methods In Biology</td>
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<td>BIOC 6029</td>
<td>MBB Journal Club and Student Research Presentations</td>
<td>2</td>
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<td></td>
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<td>BIOC 6097</td>
<td>Research</td>
<td>1-9</td>
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</table>

Total Credit Hours: 54.0-55.0

### Biochemistry Objectives/Program Outcomes

1. Review/interpret research literature
2. Communicate effectively in writing
3. Communicate effectively in verbal presentations
4. Display potential for conducting independent research

### Biomedical Engineering

The Ph.D. in Biomedical Engineering is jointly offered between the University of Texas Health Science Center at San Antonio (HSC) and The University of Texas at San Antonio (UTSA). The primary objective of this program is to broadly train students in the principles of biomedical engineering so they are well prepared to participate in the development of new approaches for the diagnosis and treatment of human diseases. A Master of Science in Biomedical Engineering is also available.

As the program is multidisciplinary, the curriculum is designed to provide a synergistic combination of formal courses, seminars, teaching opportunities, interactions with clinicians, and individualized biomedical engineering research experiences in the laboratories of the biomedical engineering faculty. All students are required to take core courses in the areas of Biomaterials, Biomechanics, Bioelectronics/Imaging and Biology, as well as Ethics in Research, Experimental Design and Data Analysis, and Introduction to Clinical Practices. In addition to the basic core curriculum, students are required to take additional coursework in the area of specialization. Students have access to the bioengineering and biosciences laboratories at both the HSC and UTSA. This provides a unique opportunity to have learning experiences in medical, dental, bioscience, and engineering environments.

### Doctor of Philosophy (PhD)

The Ph.D. in Biomedical Engineering is jointly offered between the University of Texas Health Science Center at San Antonio (HSC) and The University of Texas at San Antonio (UTSA). The primary objective of this program is to broadly train students in the principles of biomedical engineering so they are well prepared to participate in the development of new approaches for the diagnosis and treatment of human diseases. A Master of Science in Biomedical Engineering is also available.

As the program is multidisciplinary, the curriculum is designed to provide a synergistic combination of formal courses, seminars, teaching opportunities, interactions with clinicians, and individualized biomedical engineering research experiences in the laboratories of the biomedical engineering faculty. All students are required to take core courses in the areas of Biomaterials, Biomechanics, Bioelectronics/Imaging and Biology, as well as Ethics in Research, Experimental Design and Data Analysis, and Introduction to Clinical Practices. In addition to the basic core curriculum, students are required to take additional coursework in the area of specialization. Students have access to the bioengineering and biosciences laboratories at both the HSC and UTSA. This provides a unique opportunity to have learning experiences in medical, dental, bioscience, and engineering environments.
engineering research experiences in the laboratories of the biomedical engineering faculty. All students are required to take core courses in the areas of Biomaterials, Biomechanics, Bioelectronics/Imaging and Biology, as well as Ethics in Research, Experimental Design and Data Analysis, and Introduction to Clinical Practices. In addition to the basic core curriculum, students are required to take additional coursework in the area of specialization. Students have access to the bioengineering and biosciences laboratories at both the HSC and UTSA. This provides a unique opportunity to have learning experiences in medical, dental, bioscience, and engineering environments.

Biomedical Engineering Admissions Requirements

Baccalaureate or master’s degree in a natural science or engineering discipline, competitive academic history (minimum GPA # 3.0/4.0), references, Graduate Record Exam (GRE), Test of English as a Foreign Language (TOEFL) [international applicants only], 3 letters of recommendation, a statement of applicant’s research experience(s) and interest in graduate study in BME. A typical successful applicant will have completed one year of calculus-based/engineering Physics, Chemistry, Biology, and Mathematics (up to Differential Equations or Engineering Analysis I). Students deficient in one or more of these will be required to take selected courses as a condition of acceptance. All facets of each applicant are considered in the admission process. Application to this joint degree program is made to UTSA.

Biomedical Engineering Degree Requirements

A minimum of 81 credit hours and a minimum overall GPA of 3.0 is required for the Ph.D. degree in Biomedical Engineering. In addition, all doctoral candidates must register for the Dissertation course (BME 7099) for at least two semesters in order to graduate; only one of the terms may be a summer session. The student is required to demonstrate intellectual command of the subject area of the graduate program and capability to carry out independent and original investigation in the area. The student must successfully defend a dissertation and be recommended by their program COGS for approval of their degree to the Dean of the Graduate School of Biomedical Sciences.

Biomedical Engineering Plan of Study

<table>
<thead>
<tr>
<th>First Year</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Fall</strong></td>
<td></td>
</tr>
<tr>
<td>ORTO 6004</td>
<td>Biology For Bioengineers 3</td>
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<tr>
<td>ORTO 6090</td>
<td>Seminar 1</td>
</tr>
<tr>
<td>or BME 6011</td>
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</tr>
<tr>
<td>RADI 5015</td>
<td>Physics Of Diagnostic Imaging 1 3</td>
</tr>
<tr>
<td>BME 6903</td>
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<tr>
<td><strong>Spring</strong></td>
<td></td>
</tr>
<tr>
<td>ORTO 6090</td>
<td>Seminar 1</td>
</tr>
<tr>
<td>INTD 6002</td>
<td>Ethics In Research 0.5</td>
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<tr>
<td>PHYL 5013</td>
<td>Dental Physiology 1 6.5</td>
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<tr>
<td>BME 6803</td>
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<tr>
<td><strong>Second Year</strong></td>
<td></td>
</tr>
<tr>
<td>ORTO 6090</td>
<td>Seminar 1</td>
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<td>or BME 6011</td>
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<tr>
<td>CSBL 5095</td>
<td>Experimental Design And Data Analysis 2</td>
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<td>Free or Prescribed Elective(s)</td>
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<tr>
<td><strong>Summer</strong></td>
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<tr>
<td>ORTO 6003</td>
<td>Introduction To Clinical Practices 1</td>
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<tr>
<td>CSBL 5019</td>
<td>Gross Human Anatomy For Graduate Students 6</td>
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<td><strong>Third Year</strong></td>
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<tr>
<td>ORTO 6097, BME 7951, BME 7952, BME 7953, or BME 7956</td>
<td>Research</td>
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<tr>
<td>ORTO 6090, or BME 6011</td>
<td>Seminar 1</td>
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<tr>
<td>Free or Prescribed Elective(s)</td>
<td>varies</td>
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<td><strong>Spring</strong></td>
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<tr>
<td>ORTO 7099, BME 7991, BME 7992, BME 7993, or BME 7996</td>
<td>Dissertation 1-9</td>
</tr>
<tr>
<td>ORTO 6097, BME 7951, BME 7952, BME 7953, or BME 7956</td>
<td>Research 1-9</td>
</tr>
<tr>
<td>ORTO 6090, or BME 6011</td>
<td>Seminar 1</td>
</tr>
<tr>
<td>Free or Prescribed Elective(s)</td>
<td>varies</td>
</tr>
<tr>
<td><strong>Spring</strong></td>
<td></td>
</tr>
<tr>
<td>ORTO 7099, BME 7991, BME 7992, BME 7993, or BME 7996</td>
<td>Dissertation 1-9</td>
</tr>
</tbody>
</table>
ORTO 6097, Research
BME 7951, or
BME 7952, or
BME 7953, or
BME 7956
ORTO 6090, Seminar
1

Summer
ORTO 7099, Dissertation
BME 7991, or
BME 7992, or
BME 7993, or
BME 7996
ORTO 6097, Research
BME 7951, or
BME 7952, or
BME 7953, or
BME 7956
ORTO 6090, or BME 6011

Fourth Year
Fall
ORTO 7099, Dissertation
BME 7991, or
BME 7992, or
BME 7993, or
BME 7996
ORTO 6097, Research
BME 7951, or
BME 7952, or
BME 7953, or
BME 7956
ORTO 6071, Supervised Teaching 2
or BME 6021
ORTO 6090, or BME 6011

Spring
ORTO 7099, Dissertation
BME 7991, or
BME 7992, or
BME 7993, or
BME 7996
ORTO 6097, Research
BME 7951, or
BME 7952, or
BME 7953, or
BME 7956
ORTO 6071, Supervised Teaching 2
or BME 6021
ORTO 6090, or BME 6021

Summer
ORTO 7099, Dissertation
BME 7991, or
BME 7992, or
BME 7993, or
BME 7996
ORTO 6097, Research
BME 7951, or
BME 7952, or
BME 7953, or
BME 7956
ORTO 6090, or BME 6011

Total Credit Hours: 61.0-205.0

1 If not taking CSBL 5019 Gross Human Anatomy For Graduate Students in summer
2 semester varies; must be a PhD candidate

Biomedical Engineering Objectives/ Program Outcomes
1. BME students will demonstrate their understanding of biology concepts for biomedical applications.
2. BME students will demonstrate their understanding of biomaterials concepts.
3. BME students will demonstrate their understanding of biomechanics concepts.
4. Students will be able to design and carry out research experiments.
5. Students will be able to communicate research findings to diverse audience
6. Students will be able to teach and disseminate knowledge

Master of Science (MS)

The Ph.D. in Biomedical Engineering is jointly offered between the University of Texas Health Science Center at San Antonio (HSC) and The University of Texas at San Antonio (UTSA). The primary objective of this program is to broadly train students in the principles of biomedical engineering so they are well prepared to participate in the development of new approaches for the diagnosis and treatment of human diseases. A Master of Science in Biomedical Engineering is also available.

As the program is multidisciplinary, the curriculum is designed to provide a synergistic combination of formal courses, seminars, teaching opportunities, interactions with clinicians, and individualized biomedical engineering research experiences in the laboratories of the biomedical engineering faculty. All students are required to take core courses in the areas of Biomat, Biomechanics, Bioelectronics/Imaging and Biology, and business research in Research, Experimental Design and Data Analysis, and Introduction to Clinical Practices. In addition to the basic core curriculum, students are required to take additional coursework in the area of specialization. Students have access to the bioengineering and biosciences laboratories at both the HSC and UTSA. This provides a unique opportunity to have learning experiences in medical, dental, bioscience, and engineering environments.

Biomedical Engineering Admissions Requirements

The minimum requirements for admission to the Master of Science degree in Biomedical Engineering program are described below. Note that admission to the program is competitive and satisfying these requirements does not guarantee admission.

Applicants must have a grade point average of 3.0 or better in the last 60 semester credit hours of coursework with a major in a recognized science or engineering discipline. All students should have had sufficient background in engineering, chemistry, biology, and physics prior to being admitted to the program. It is expected that these students will have B.S. degrees with an emphasis in either engineering, physical sciences, or biological science disciplines. All students are required to have completed at least one year of engineering physics, chemistry, biology, and mathematics (up to Differential Equations I or Applied Engineering Analysis I). Students with deficiencies in the above courses will be required to satisfactorily complete selected courses as a condition of acceptance.

A satisfactory score, as evaluated by the Admissions Committee for Biomedical Engineering, is required on the Graduate Record Examination (GRE). Students whose native language is not English must achieve a minimum score of 550 on the Test of English as a Foreign Language (TOEFL) paper version or 79 on the Internet version. The applicant’s performance on a standardized test will be considered in addition to other criteria for admission or competitive scholarship awards and will not be used as the sole criterion for consideration of an applicant.

Three letters of recommendation attesting to the applicant’s readiness for graduate study.

A complete application includes the application form, official transcripts, letters of recommendation, GRE scores, a résumé, and a statement of the applicant’s research experience, interests, and goals. TOEFL scores are required for those applicants whose native language is not English.

Biomedical Engineering Degree Requirements

A minimum of 30.5 semester credit hours beyond the bachelor’s degree and a minimum overall GPA of 3.0 is required for the M.S. degree in Biomedical Engineering. Regardless of their area of specialization, all students are required to take a total of 15.5 semester credit hours of Required Core Courses. In addition, all students must register for three semesters of Research seminar, a minimum of 6 semester credit hours of approved Elective Courses, and a minimum of 6 semester credit hours of biomedical engineering Master’s Thesis Research. The courses taken by students are intended to focus and support the individual’s mastery of his or her particular area of specialization. The student must successfully present their Thesis and be recommended by their program CGS for approval of their degree to the Dean of the Graduate School of Biomedical Sciences.

Biomedical Engineering Plans of Study

MS

First Year

Fall

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credit Hours</th>
</tr>
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<tbody>
<tr>
<td>ORTO 6004</td>
<td>Biology For Bioengineers</td>
<td>3</td>
</tr>
<tr>
<td>ORTO 6090 or BME 6011</td>
<td>Seminar</td>
<td>1</td>
</tr>
<tr>
<td>BME 6903</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Elective(s)</td>
<td></td>
<td>varies</td>
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Or BME 6011 Seminar

Spring

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ORTO 6090 or BME 6011</td>
<td>Seminar</td>
<td>1</td>
</tr>
<tr>
<td>INTD 6002</td>
<td>Ethics In Research</td>
<td>0.5</td>
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<td>PHYL 5013</td>
<td>Dental Physiology 1</td>
<td>6.5</td>
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<tr>
<td>BME 6803</td>
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<td>3</td>
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<td>Elective(s)</td>
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Or ORTO 6098, ORTO 6097 Research

Summer

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<tbody>
<tr>
<td>ORTO 6097</td>
<td>Research</td>
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<tr>
<td>ORTO 6098, BME 6892, BME 6893, or BME 6896</td>
<td>Thesis</td>
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Second Year

Fall

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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<tr>
<td>ORTO 6090</td>
<td>Seminar</td>
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<tr>
<td>Course</td>
<td>Credits</td>
<td>Year</td>
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<tr>
<td>--------</td>
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<tr>
<td>ORTO 6097</td>
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<td>1-9</td>
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<td>BME 6703</td>
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<td>1-9</td>
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<tr>
<td>BME 6033</td>
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</tr>
<tr>
<td>Elective(s)</td>
<td>- see department</td>
<td>1-9</td>
</tr>
<tr>
<td>ORTO 6098, Thesis</td>
<td>1-9</td>
<td>Spring</td>
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<td>BME 6892, BME 6893, or BME 6896</td>
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<td>Spring</td>
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<tr>
<td>ORTO 6097, Research</td>
<td>1-9</td>
<td>Summer</td>
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<tr>
<td>BME 7951, BME 7952, BME 7953, or BME 7956</td>
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<td>Summer</td>
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Total Credit Hours: 40.0-160.0

1 if not taking CSBL 5019 Gross Human Anatomy For Graduate Students in summer

**MS, Non-thesis Option**

**First Year**

**Fall**

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<tr>
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<td>Biology For Bioengineers</td>
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<td>ORTO 6090</td>
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<td>Seminar or BME 6011</td>
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<td>BME 6903</td>
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<tr>
<td>Elective(s)</td>
<td>varies</td>
<td>- see department</td>
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**Spring**

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<tbody>
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<td>ORTO 6090</td>
<td>1</td>
<td>Seminar or BME 6011</td>
</tr>
<tr>
<td>INTD 6002</td>
<td>0.5</td>
<td>Ethics In Research</td>
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<tr>
<td>BME 6803</td>
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</tr>
<tr>
<td>Elective(s)</td>
<td>varies</td>
<td>- see department</td>
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</table>

**Second Year**

**Fall**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
<th>Title</th>
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</thead>
<tbody>
<tr>
<td>ORTO 6090</td>
<td>1</td>
<td>Seminar or BME 6011</td>
</tr>
<tr>
<td>BME 6703</td>
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<td></td>
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<tr>
<td>BME 6033</td>
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</table>

**Elective(s)**

- see department
Elective(s) - see department
Spring
BME 6961 take during last semester
Elective(s) - see department
Summer
Elective(s) - see department
Third Year
Fall
BME 6961 take during last semester
Elective(s) - see department
Spring
BME 6961 take during last semester
Elective(s) - see department

Total Credit Hours: 21.5

Biomedical Engineering Objectives/
Program Outcomes

1. BME students will demonstrate their understanding of biology concepts for biomedical applications.
2. BME students will demonstrate their understanding of biomaterials concepts.
3. BME students will demonstrate their understanding of biomechanics concepts.
4. Students will be able to design and carry out research experiments.
5. Students will be able to communicate research findings to diverse audience
6. Students will be able to teach and disseminate knowledge

Cancer Prevention

The Certificate in Cancer Prevention (CCP) is intended to provide fundamental curricular activities in the science of cancer prevention to HSC students, postdoctoral trainees, clinical residents and fellows, and faculty from the Schools of Medicine, Nursing, Dentistry, Health Professions, and Graduate School of Biomedical Sciences (GSBS) as well as from local organizations that are partnered with the HSC. It provides specialized training in the prevention of cancers afflicting South Texans who are at risk for prostate, breast, liver/biliary and oral cancers, and childhood cancers. Although other organizations have included cancer prevention training as a part of their Master’s in Public Health program or training grants, there are no other cancer prevention certificate programs in the country.

Certificate in Cancer Prevention
Admissions Requirements

The Certificate in Cancer Prevention Program has an open application policy and will accept applications for admission at any time.

However, GSBS deadlines (for submission of application and required documentation) for matriculation in a specific academic semester are listed below.

- Fall Semester: June 1
- Spring Semester: October 1
- Summer Semester: March 1

A satisfactory score for the combined verbal and quantitative portions of the Graduate Record Examination (GRE). A minimum of 1,000 for the combined scores on the verbal and quantitative portions of the Aptitude Test is desirable.

Applicants who have completed a graduate degree in a health-related discipline (MD, DDS, RN, DVM, MS, or PhD) will be exempted from the requirement to complete the GRE.

A minimum score of 550 on the Test of English as a Foreign Language (TOEFL) for applicants from countries where English is not the native language.

Scores on TOEFL tests taken more than two years prior to the date of matriculation are not acceptable.

All transcripts from foreign institutions (including GPA) must be translated and submitted by an approved foreign credentialing evaluation agency.

Letters of recommendation (three) attesting to the applicant’s readiness for graduate level studies in translational science.

If a matriculated graduate student has a Supervising Professor, one letter must be provided by this individual.

A Personal Statement (1-2 pages) that includes a brief description of the applicant’s background, long term research and/or career goals, and an indication of the basis for application into the CTS Program including how this program fits into the applicant’s career objectives.

Certificate in Cancer Prevention Degree Requirements

Twelve semester credit hours of didactic coursework are required to obtain the CCP. Ten semester credit hours are expected to be earned via required coursework, and another two semester credit hours from elective coursework. Satisfactory completion of required and elective coursework is also needed in order to be recommended for awarding of the certificate.
## Certificate in Cancer Prevention Sample Plan of Study

### First Year

#### Fall

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>MEDI 5070</td>
<td>Responsible Conduct Of Patient-Oriented Clinical Research</td>
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<tr>
<td>MEDI 5071</td>
<td>Patient-Oriented Clinical Research Methods-1</td>
<td>2</td>
</tr>
<tr>
<td>MEDI 5072</td>
<td>Patient-Oriented Clinical Research Biostatistics-1</td>
<td>2</td>
</tr>
<tr>
<td>MEDI 6105</td>
<td>Topics in Cancer Prevention</td>
<td>1</td>
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#### Spring

<table>
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<th>Course Title</th>
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<tr>
<td>MEDI 6106</td>
<td>Practicum in Cancer Prevention Science</td>
<td>0.5-1</td>
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<tr>
<td>MEDI 6001</td>
<td>Introduction To Translational Science</td>
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<tr>
<td>MEDI Elective course (see list below)</td>
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Total Credit Hours: 12.5-13.0

### CCP Elective Courses (may be taken in any semester when offered)

<table>
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<tr>
<td>MEDI 5073</td>
<td>Integrated Molecular Biology With Patient-Oriented Clinical Research</td>
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<tr>
<td>MEDI 5074</td>
<td>Data Management, Quality Control And Regulatory Issues</td>
<td>2</td>
</tr>
<tr>
<td>MEDI 5075</td>
<td>Scientific Communication</td>
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</tr>
<tr>
<td>MEDI 6001</td>
<td>Introduction To Translational Science</td>
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<tr>
<td>MEDI 6060</td>
<td>Patient-Oriented Clinical Research Methods-2</td>
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<tr>
<td>MEDI 6061</td>
<td>Patient-Oriented Clinical Research Biostatistics-2</td>
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<tr>
<td>MEDI 6064</td>
<td>Grantsmanship and Peer Review</td>
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<tr>
<td>MEDI 6065</td>
<td>Health Services Research</td>
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<tr>
<td>MEDI 6066</td>
<td>Instrument Development And Validation</td>
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<td>MEDI 6067</td>
<td>Genetics And Genetic Epidemiology</td>
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<td>MEDI 6068</td>
<td>Cross-Cultural Adaptation Of Research Instruments</td>
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<td>MEDI 6100</td>
<td>Practicum In IACUC Procedures</td>
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<td>MEDI 6102</td>
<td>Practicum In IRB Procedures</td>
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<tr>
<td>MEDI 6103</td>
<td>Selected Topics In Advanced Research Ethics</td>
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## Certificate in Cancer Prevention Objectives and Program Outcomes

The creation of the new Certificate in Cancer Prevention (CCP) is intended to provide fundamental curricular activities in the science of cancer prevention to UT Health Science Center-San Antonio students, postdoctoral trainees, clinical residents and fellows, and faculty from the Schools of Medicine, Nursing, Dentistry, Health Professions, and Graduate School of Biomedical Sciences (GSBS) as well as from local organizations that are partnered with The University of Texas Health Science Center at San Antonio. It will provide specialized training in the prevention of cancers afflicting South Texans who are at risk for prostate, breast, liver/biliary and oral cancers, and childhood cancers. The aims will be achieved via participation and successful completion of required didactic coursework.

## Cancer Prevention Program-Specific Policies

A laptop computer that is operational in a wireless mode, and the corresponding necessary software is required for a mandatory course, MEDI 5072 Patient-Oriented Clinical Research Biostatistics-1. Laptops with an Apple Mac-based operating system must be able to also perform as a PC-based operating system. In addition, all wireless laptops must be authenticated before accessing the UTHSCSA computer network prior to the start of classes.

## Cellular and Structural Biology

The graduate program in Cellular and Structural Biology provides a rewarding opportunity for students wishing to pursue either the M.S. or Ph.D. for preparation for a fulfilling career in biomedicine.

The strength of our program is its diversity; faculty are performing state-of-the-art research in areas of animal models of human disease, cancer biology, development and reproduction, molecular basis of again molecular genetics, neurobiology and endocrinology, stem-cell biology, and the anatomical sciences. The curriculum and research experience is aimed at producing trainees with the technical competence and scholarly background to become independent investigators, capable of designing and executing programs of excellence in research and teaching. All graduate students pursue a program of study designed to develop both their scholarly and laboratory aptitudes through one-on-one mentoring by the graduate faculty. In addition, in-depth instruction is also provided on effective seminar presentation as well as grant and manuscript preparation.

## Doctor of Philosophy (PhD)

The graduate program in Cellular and Structural Biology provides a rewarding opportunity for students wishing to pursue either the M.S. or Ph.D. for preparation for a fulfilling career in biomedicine.

The strength of our program is its diversity; faculty are performing state-of-the-art research in areas of animal models of human disease, cancer biology, development and reproduction, molecular basis of again molecular genetics, neurobiology and endocrinology, stem-cell biology, and the anatomical sciences. The curriculum and research experience is aimed at producing trainees with the technical competence and scholarly background to become independent investigators, capable of designing and executing programs of excellence in research and teaching. All graduate students pursue a program of study designed to develop both their scholarly and laboratory aptitudes through one-on-one mentoring by the graduate faculty. In addition, in-depth instruction is also provided on effective seminar presentation as well as grant and manuscript preparation.
Cellular and Structural Biology Admissions Requirements

Applicants are required to have a minimum of a Bachelor’s degree from an accredited institution and a minimum GPA of 3.0/4.0. Applicants should have received credit for courses taken in:

- Biology 1 2 yrs. as required for science majors
- Chemistry 1 1 yr. general chemistry and organic chemistry
- Physics 1 yr.
- Mathematics minimum of 1 semester of calculus
  
  1 courses should include laboratory experience

All applicants must take the Graduate Record Examination (GRE). The GRE must be taken within the last 5 years and the TOEFL within the last 2 years. There is no minimum score required for the GRE.

In addition to the GRE, international applicants are also required to take one of two English proficiency tests: Test of English as a Foreign Language (TOEFL) or the International English Language Testing System (IELTS: Academic module only). The minimum required scores for the TOEFL are 560 for the paper test and 68 for the internet test. The minimum score on the academic IELTS is 6.5.

Three letters of recommendation are required. The applicant must submit 3 essays stating the reasons for your interest in the program, a description of your professional goals and an outline of your undergraduate, industrial or summer research. On campus recruitment interviews are conducted during February and March. Phone interviews for international application occur in January and February.

The admissions committee makes its decision based on the candidate’s research experience, grade point average, personal statement, GRE score, interviews, letters of recommendations, and how the candidate matches up against other interested applicants.

Cellular and Structural Biology Degree Requirements

A minimum of 72 credit hours and a minimum overall GPA of 3.0 is required for the Ph.D. degree. In addition, all doctoral candidates must register for the CSBL 7099 Dissertation for at least two semesters in order to graduate; only one of the terms may be a summer session. The student is required to demonstrate intellectual command of the subject area of the graduate program and capability to carry out independent and original investigation in the area. The student must successfully defend a dissertation and be recommended by their program COGS for approval of their degree to the Dean of the Graduate School of Biomedical Sciences.

Biology of Aging Track - 2013 Plan of Study

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<th>Fall</th>
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<tbody>
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<td>CSBL 6097</td>
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Total Credit Hours: 112.5-114.0
Cancer Biology Track - 2013 Plan of Study

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Second Year

Fall

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Summer

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<td>CSBL 5007</td>
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Third Year

Fall

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Fifth Year

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Cellular and Molecular Medicine Track - 2013 Plan of Study

First Year

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<tbody>
<tr>
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<tr>
<td>CSBL 5089</td>
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<tr>
<td>INTD 6002</td>
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Summer

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<tr>
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Second Year

Fall

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<td>CSBL 5077</td>
<td>Scientific Writing</td>
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<tr>
<td>INTD 6008</td>
<td>Mitochondria &amp; Apoptosis</td>
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Qualifying Exam

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</table>

Total Credit Hours: 110.5
Students can tailor the required coursework for the CMM track to their specific interests including aging, cancer, immunology, neuroscience, metabolism and genetic disorders. They have two options to fulfill the 4-credit advanced course requirement:

**Option 1:** Take the full course (INTD 5007 Advanced Cellular And Molecular Biology)

**Option 2:** Take only one of the advanced course modules, either
INTD 6009 Advanced Cell And Molecular Biology (2 credits) or INTD 6007 Advanced Cell Biology (2 credits), then add 2 credit hours of required core coursework from any of the other IMGP tracks (list provided below).

These changes provide CMM students with the greatest flexibility, while emphasizing the importance of molecular and cellular approaches to studying health and disease.

### Required Courses for Other IMGP Tracks

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<td>Aging and Longevity Mechanisms</td>
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<td>CSBL 6068</td>
<td>Cancer Biology Core 1</td>
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<td>Cancer Biology Core 2</td>
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<td>Genomics</td>
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<td>CSBL 5023</td>
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<td>Stem Cell Biology</td>
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<td>MICR 5003</td>
<td>Core Concepts In Microbiology &amp; Immunology</td>
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<td>PHYL 5041</td>
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<td>Fundamentals Of Neuroscience1: Molecular, Cellular, &amp; Developmental Neuroscience</td>
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<td>Metabolism/Hormones/GI System</td>
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### Genes, Genetics & Development Track - 2013 Plan of Study

#### First Year

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<td>INTD 5008 Lab Rotations</td>
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**Spring**

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**Third Year**

**Fall**

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**Second Year**

**Fall**

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**Spring**

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<tbody>
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<td>CSBL 6097 Research</td>
<td>1-9</td>
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</table>

**Fourth Year**

**Fall**

<table>
<thead>
<tr>
<th>Course</th>
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<tbody>
<tr>
<td>CSBL 6071 Supervised Teaching</td>
<td>1-9</td>
</tr>
<tr>
<td>CSBL 6097 Research</td>
<td>1-9</td>
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</table>
INTD 6090 Seminar 1

Spring
Elective(s) see department
CSBL 6097 Research 1-9
INTD 6090 Seminar 1

Summer
CSBL 6097 Research 1-9

Fifth Year
Fall
CSBL 6097 Research 1-9
INTD 6090 Seminar 1

Spring
Research/Dissertation
INTD 6090 Seminar 1

Total Credit Hours: 107.5

Cellular and Structural Biology Objectives/Program Outcomes

Students in the CSB graduate program will have the ability to review, interpret and critically evaluate scientific literature related to areas of biomedical science relevant to cellular and molecular biology in general and specifically to their project. Students will be trained to review and interpret original scientific literature through coursework and in their research.

Students in the CSB graduate program will have the ability to conduct original biomedical research. Students in the program will be able to analyze, plan, organize, and conduct high-quality biomedical research under the direction of supervising professors and guidance of research advisory (dissertation/thesis) committees as appropriate.

Students in the CSB graduate program will have the ability to communicate effectively in written and verbal presentations. Students will learn to effectively communicate ideas in written format via coursework, examinations and their research and to communicate ideas/concepts in verbal presentations during progress report seminars, research advisory committee meetings, oral examinations/defenses, and participation in scientific meetings.

Students in the CSB graduate program will demonstrate foundational knowledge and expertise in a select area appropriate to the research project. Students will be able to define, explain, and apply key concepts and fundamental principles related to the areas of biomedical science relevant to their track and to their specific research projects.

Students in the CSB graduate program will demonstrate fundamental knowledge of ethics in biomedical research. Students will be able to recognize ethical dilemmas and behave in accordance with ethical standards of conduct in the design, implementation, analysis, and dissemination of scientific research.

Master of Science (MS)

The graduate program in Cellular and Structural Biology provides a rewarding opportunity for students wishing to pursue either the M.S. or Ph.D. for preparation for a fulfilling career in biomedicine.

The strength of our program is its diversity; faculty are performing state-of-the-art research in areas of animal models of human disease, cancer biology, development and reproduction, molecular basis of organismal genetics, neurobiology and endocrinology, stem-cell biology, and the anatomical sciences. The curriculum and research experience is aimed at producing trainees with the technical competence and scholarly background to become independent investigators, capable of designing and executing programs of excellence in research and teaching. All graduate students pursue a program of study designed to develop both their scholarly and laboratory aptitudes through one-on-one mentoring by the graduate faculty. In addition, in-depth instruction is also provided on effective seminar presentation as well as grant and manuscript preparation.

Cellular and Structural Biology Admission Requirements

Applicants are required to have a minimum of a Bachelor’s degree from an accredited institution and a minimum GPA of 3.0/4.0. Applicants should have received credit for courses taken in:

- Biology\(^1\) 2 yrs. as required for science majors
- Chemistry\(^1\) 1 yr. general chemistry and organic chemistry
- Physics 1 yr.
- Mathematics minimum of 1 semester of calculus

\(^1\) courses should include laboratory experience

All applicants must take the Graduate Record Examination (GRE). The GRE must be taken within the last 5 years and the TOEFL within the last 2 years. There is no minimum score required for the GRE. A personal statement is required.

In addition to the GRE, international applicants are also required to take one of two English proficiency tests: Test of English as a Foreign Language (TOEFL) or the International English Language Testing System (IELTS: Academic module only). The minimum required scores for the TOEFL are 560 for the paper test and 68 for the internet test. The minimum score on the academic IELTS is 6.5.

Three letters of recommendation are required.

The admission committee uses a holistic approach in making its decision. Consideration is given to a candidate’s research experience, grade point average, personal statement, GRE score, interviews, letters of recommendations, and to how they match up against other interested applicants.

Cellular and Structural Biology Degree Requirements

A minimum of 30 credit hours and a minimum overall GPA of 3.0 is required for the M.S. degree. In addition, all master’s candidates must register for the CSBL 6098 Thesis for at least one semester in order...
to graduate. The student must successfully defend a thesis and be recommended by their program COGS for approval of their degree to the Dean of the Graduate School of Biomedical Sciences.

**Cellular and Structural Biology Samples Plan of Study**

**Anatomical Sciences Track**

<table>
<thead>
<tr>
<th>Plans of Study</th>
<th>First Year</th>
<th></th>
<th>Second Year</th>
<th>Third Year</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Fall</strong></td>
<td>CSBL 5032</td>
<td>Dental Histology</td>
<td>CSBL 5013</td>
<td>CSBL 6098</td>
</tr>
<tr>
<td></td>
<td>MEDI 5070</td>
<td>Responsible Conduct Of Patient-Oriented Clinical Research</td>
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<td>Thesis</td>
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<tr>
<td></td>
<td>MEDI 5075</td>
<td>Scientific Communication</td>
<td></td>
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<td></td>
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<td><strong>Spring</strong></td>
<td></td>
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<tr>
<td></td>
<td>CSBL 5032</td>
<td>Dental Histology</td>
<td></td>
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<tr>
<td></td>
<td>CSBL 5015</td>
<td>History Of Anatomy</td>
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<td></td>
<td></td>
<td><strong>Summer</strong></td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>CSBL 5013</td>
<td>Gross Anatomy</td>
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<td><strong>First Year</strong></td>
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<td><strong>Fall</strong></td>
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<tr>
<td></td>
<td>CSBL 6165</td>
<td>Medical Genetics</td>
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<td><strong>Spring</strong></td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>CSBL 5097</td>
<td>Research</td>
<td></td>
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</tr>
<tr>
<td><em>Special Studies in Anatomy/Cell Biology</em></td>
<td>CSBL 6097</td>
<td>Research</td>
<td></td>
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<tr>
<td><em>Special Contributions in Anatomy/Cell Biology</em></td>
<td>CSBL 6090</td>
<td>Seminar</td>
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</table>

Total Credit Hours: 35.5

**Biology Biotechnology Track**

<table>
<thead>
<tr>
<th>Plans of Study</th>
<th>First Year</th>
<th></th>
<th>Second Year</th>
<th>Third Year</th>
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</thead>
<tbody>
<tr>
<td><strong>Fall</strong></td>
<td>INTD 5000</td>
<td>Fundamentals Of Biomedical Sciences</td>
<td>CSBL 6098</td>
<td>CSBL 6098</td>
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<tr>
<td></td>
<td>CSBL 6097</td>
<td>Research</td>
<td></td>
<td>Thesis</td>
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<td><strong>Spring</strong></td>
<td>CSBL 6097</td>
<td>Thesis</td>
</tr>
<tr>
<td></td>
<td>Advanced</td>
<td>Core Courses and/or Elective(s)</td>
<td>CSBL 6097</td>
<td>Thesis</td>
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<td></td>
<td>- see</td>
<td>department</td>
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<tr>
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<td>CSBL 6097</td>
<td>Research</td>
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<td></td>
<td>INTD 6002</td>
<td>Ethics In Research</td>
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<tr>
<td><strong>Summer</strong></td>
<td>CSBL 6097</td>
<td>Research</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Total Credit Hours: 36.5

1 Available only to students who have completed the D.D.S. or equivalent and have been accepted into the Post-Doctoral Residency Program
Cellular and Structural Biology Objectives/
Program Outcomes

Anatomy Track

- Students in the CSB graduate program will have the ability to review, interpret and critically evaluate scientific literature related to areas of biomedical science relevant to cellular and molecular biology in general and specifically to their project. Students will be trained to review and interpret original scientific literature through coursework and in their research.

- Students in the CSB graduate program will have the ability to conduct original biomedical research. Students in the program will be able to analyze, plan, organize, and conduct high-quality biomedical research under the direction of supervising professors and guidance of research advisory (dissertation/thesis) committees as appropriate.

- Students in the CSB graduate program will have the ability to communicate effectively in written and verbal presentations. Students will learn to effectively communicate ideas in written format via coursework, examinations and their research and to communicate ideas/concepts in verbal presentations during progress report seminars, research advisory committee meetings, oral examinations/defenses, and participation in scientific meetings.

- Students in the CSB graduate program will demonstrate foundational knowledge and expertise in a select area appropriate to the research project. Students will be able to define, explain, and apply key concepts and fundamental principles related to the areas of biomedical science relevant to their track and to their specific research projects.

- Students in the CSB graduate program will demonstrate fundamental knowledge of ethics in biomedical research. Students will be able to recognize ethical dilemmas and behave in accordance with ethical standards of conduct in the design, implementation, analysis, and dissemination of scientific research.

Biotechnology Track

- Students in the CSB graduate program will have the ability to review, interpret and critically evaluate scientific literature related to areas of biomedical science relevant to cellular and molecular biology in general and specifically to their project. Students will be trained to review and interpret original scientific literature through coursework and in their research.

- Students in the CSB graduate program will have the ability to conduct original biomedical research. Students in the program will be able to analyze, plan, organize, and conduct high-quality biomedical research under the direction of supervising professors and guidance of research advisory (dissertation/thesis) committees as appropriate.

- Students in the CSB graduate program will have the ability to communicate effectively in written and verbal presentations. Students will learn to effectively communicate ideas in written format via coursework, examinations and their research and to communicate ideas/concepts in verbal presentations during progress report seminars, research advisory committee meetings, oral examinations/defenses, and participation in scientific meetings.

- Students in the CSB graduate program will demonstrate foundational knowledge and expertise in a select area appropriate to the research project. Students will be able to define, explain, and apply key concepts and fundamental principles related to the areas of biomedical science relevant to their track and to their specific research projects.

- Students in the CSB graduate program will demonstrate fundamental knowledge of ethics in biomedical research. Students will be able to recognize ethical dilemmas and behave in accordance with ethical standards of conduct in the design, implementation, analysis, and dissemination of scientific research.

Clinical Investigation

The Master of Science Degree Program in Clinical Investigation (MSCI) trains clinicians and health care professionals in the conduct of clinical investigations. Applicants to the Clinical program must provide proof a degree in medicine, dentistry, graduate nursing, health professions, or evidence of concurrent enrollment in the Graduate School of Biomedical Sciences. Enrollees in the MSCI Program must complete a mentored research project over two years while participating in a highly integrated set of didactic courses leading to the MSCI degree.

Students will have the opportunity to become expert in the design and conduct of outstanding multidisciplinary patient-oriented research studies involving direct interaction with human subjects in culturally diverse settings.

Clinical Investigation Admissions Requirements

The MSCI Program has an open application policy and will accept applications for admission at any time.

However, GSBS deadlines (for submission of application and required documentation) for matriculation in a specific academic semester are listed below.

- Applicants Requiring an F-1 Visa:
  - Fall Semester April 1
- Applicants Not Requiring F-1 Visa:
  - Fall Semester June 1
  - Spring Semester October 1
  - Summer Semester March 1

Applications for applicants intending to apply for or transfer an F-1 visa will only be accepted for consideration for matriculation in the Fall semester.

All transcripts from foreign institutions must include the GPA and be translated and submitted by an approved foreign credentialing evaluation agency.

A satisfactory score for the combined verbal and quantitative portions of the Graduate Record Examination (GRE). A minimum of 1,000 for the combined scores on the verbal and quantitative portions of the Aptitude Test is desirable.

Applicants who have completed a graduate degree in a health-related discipline (MD, DDS, RN, DVM, MS, or PhD) will be exempted from the requirement to complete the GRE.
A minimum score of 550 on the Test of English as a Foreign Language (TOEFL) or 6.5 on International English Language Testing System (IELTS) for applicants from countries where English is not the native language.

Scores on TOEFL or IELS tests taken more than two years prior to the date of matriculation are not acceptable.

Letters of recommendation (three) attesting to the applicant's readiness for graduate level studies in clinical investigation.

• Residents or fellows in an approved UT Health Science Center at San Antonio residency or fellowship program are required to submit a letter from the departmental Chairman with a statement indicating the availability and approval of release time for the completion of MSCI educational and research activities.

• Similarly, for UT Health Science Center at San Antonio staff, an authorized supervisor must provide a statement indicating the availability of release time for MSCI educational and research activities.

A personal statement (1-2 pages) that includes a brief description of the applicant's background, long term research and career goals, and an indication of the basis for application into the MSCI Program including how this program fits into the applicant's career objectives.

A current curriculum vitae is required.

Applicants requiring a student visa (requires full-time enrollment) are required to obtain a Supervising Professor, Supervising Committee, and submit a Research Proposal Packet on or before the application deadline for the semester they are applying for.

Clinical Investigation Degree
Requirements

Program Specific Policies for Student Manuscripts Required for Graduation

Students are required to submit a manuscript to the MSCI COGS for consideration of their eligibility for candidacy for the MSCI degree.

The manuscript must have already been submitted to a peer reviewed scientific journal – it may have been submitted, in press, or published during the interval that the student was enrolled in the MSCI Program.

Manuscripts unrelated to the approved research project, such as case reports or book chapters, are not acceptable for completion of the manuscript requirement of the MSCI degree.

Students are required to be a primary author (1st author) or share the position of primary author (2nd author).

In keeping with the responsible conduct of research, all manuscripts must comply with the specific requirements of the journal (e.g., responsibilities of the corresponding author). There will be no exception to this requirement.

Clinical Investigation Plan of Study

First Year

<table>
<thead>
<tr>
<th>Semester</th>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
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<tr>
<td>Fall</td>
<td>MEDI 5070</td>
<td>Responsible Conduct Of Patient-Oriented Clinical Research</td>
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<td>MEDI 5071</td>
<td>Patient-Oriented Clinical Research Methods-1</td>
<td>2</td>
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<td>MEDI 5072</td>
<td>Patient-Oriented Clinical Research</td>
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<td>MEDI 6097</td>
<td>Research</td>
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<td>Spring</td>
<td>MEDI 5074</td>
<td>Data Management, Quality Control And Regulatory Issues</td>
<td>2</td>
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<td>MEDI 6060</td>
<td>Patient-Oriented Clinical Research Methods-2</td>
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<td>MEDI 6061</td>
<td>Patient-Oriented Clinical Research</td>
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<td>Research</td>
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<tr>
<td>Summer</td>
<td>MEDI 5073</td>
<td>Integrated Molecular Biology With Patient-Oriented Clinical Research</td>
<td>2</td>
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<td>MEDI 6097</td>
<td>Research</td>
<td>1-9</td>
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<tr>
<td>Second Year</td>
<td>MEDI 5075</td>
<td>Scientific Communication</td>
<td>2</td>
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<tr>
<td>Fall</td>
<td>MEDI 6065</td>
<td>Health Services Research</td>
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<td>Research</td>
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<tr>
<td>Spring</td>
<td>MEDI 6097</td>
<td>Research</td>
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<td>MEDI 6098</td>
<td>Thesis</td>
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<td>Total Credit Hours:</td>
<td>33.0</td>
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</table>

1 No formal classes should be required during this semester. The research project should be completed and a manuscript prepared and submitted.

Clinical Investigation Objectives/Program Outcomes

• Fundamental knowledge of and practice of ethics in research.
• Competence in principles of research design/methods and data management/analysis.
• Communicate research effectively in written and verbal communication.
• Competence in research literature review and interpretation.
• Conduct mentored research and submit results for publication.

Program Specific Policies for Student Research Projects

A Supervising Professor, Supervising Committee, and written research proposal must be approved by the MSCI COGS before a student can enroll in MEDI 6097 Research (Mentored Research in Clinical Investigation).

Any changes to a student’s Supervising Professor, Supervising Committee, and written research proposal must be approved by the MSCI COGS.

MSCI students with an approved research project are required to prepare a semi-annual written report of progress for consideration by their
Both master’s and doctoral degrees are offered under Microbiology. Regulation, Vaccinology, Tumor Immunology, Autoimmunity, and Allergy. Genetics, Physiology and Pathogenesis, Infectious Diseases, Immune many different areas of basic and clinical life sciences, including Microbial cellular, and systemic levels. Students will have the opportunity to gain allergens, tumor, and self-antigens are also investigated at the molecular, to mechanisms of host interactions with microorganisms, responses to pathogenesis of viral, bacterial, fungal, and parasitic infections. In addition and functional assays to study the regulation, host interactions and and bioinformatics, as well as other genetic, biochemical, cellular and systematic levels. Students will have the opportunity to gain the broad knowledge and skills necessary for future research careers in many different areas of basic and clinical life sciences, including Microbial Genetics, Physiology and Pathogenesis, Infectious Diseases, Immune Regulation, Vaccinology, Tumor Immunology, Autoimmunity, and Allergy. Both master’s and doctoral degrees are offered under Microbiology.

Microbiology and Immunology

The graduate program in Microbiology focuses on microbial infection, host responses to infection, and other aspects of the immune system in health and disease. The track faculty members apply state-of-the-art experimental approaches, including genomics, proteomics and bioinformatics, as well as other genetic, biochemical, cellular and functional assays to study the regulation, host interactions and pathogenesis of viral, bacterial, fungal, and parasitic infections. In addition to mechanisms of host interactions with microorganisms, responses to allergens, tumor, and self-antigens are also investigated at the molecular, cellular, and systemic levels. Students will have the opportunity to gain the broad knowledge and skills necessary for future research careers in many different areas of basic and clinical life sciences, including Microbial Genetics, Physiology and Pathogenesis, Infectious Diseases, Immune Regulation, Vaccinology, Tumor Immunology, Autoimmunity, and Allergy. Both master’s and doctoral degrees are offered under Microbiology.

Doctor of Philosophy (PhD)

The graduate program in Microbiology focuses on microbial infection, host responses to infection, and other aspects of the immune system in health and disease. The track faculty members apply state-of-the-art experimental approaches, including genomics, proteomics and bioinformatics, as well as other genetic, biochemical, cellular and functional assays to study the regulation, host interactions and pathogenesis of viral, bacterial, fungal, and parasitic infections. In addition to mechanisms of host interactions with microorganisms, responses to allergens, tumor, and self-antigens are also investigated at the molecular, cellular, and systemic levels. Students will have the opportunity to gain the broad knowledge and skills necessary for future research careers in many different areas of basic and clinical life sciences, including Microbial Genetics, Physiology and Pathogenesis, Infectious Diseases, Immune Regulation, Vaccinology, Tumor Immunology, Autoimmunity, and Allergy. Both master’s and doctoral degrees are offered under Microbiology.

Microbiology and Immunology Admissions Requirements

Applicants are required to have a minimum of a Bachelor’s degree from an accredited institution and a minimum GPA of 3.0/4.0. Applicants should have received credit for courses taken in:

- Biology 1 yr.
- Chemistry 1 yr.
- Physics 1 yr.
- Mathematics minimum of 1 semester of calculus

1 courses should include laboratory experience

All applicants must take the Graduate Record Examination (GRE). The GRE must be taken within the last 5 years and the TOEFL within the last 2 years. There is no minimum score required for the GRE.

In addition to the GRE, international applicants are also required to take one of two English proficiency tests: Test of English as a Foreign Language (TOEFL) or the International English Language Testing System (IELTS: Academic module only). The minimum required scores for the TOEFL are 560 for the paper test and 68 for the internet test. The minimum score on the academic IELTS is 6.5.

Three letters of recommendation are required. The applicant must submit 3 essays stating the reasons for your interest in the program, a description of your professional goals and an outline of your undergraduate, industrial or summer research. On campus recruitment interviews are conducted during February and March. Phone interviews for international application occur in January and February.

The admission committee makes its decision based on the candidate’s research experience, grade point average, personal statement, GRE score, interviews, letters of recommendations, and how the candidate matches up against other interested applicants.

Microbiology and Immunology Degree Requirements

A minimum of 72 credit hours and a minimum overall GPA of 3.0 is required for the Ph.D. degree. In addition, all doctoral candidates must register for the MICR 7099 Dissertation for at least two semesters in order to graduate; only one of the terms may be a summer session. The student is required to demonstrate intellectual command of the subject area of the graduate program and capability to carry out independent and original investigation in the area. The student must successfully defend a dissertation and be recommended by their program COGS for approval of their degree to the Dean of the Graduate School of Biomedical Sciences.

M&I - Plan of Study (Course Curriculum Timeline)

First Year

<table>
<thead>
<tr>
<th>Fall</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>INTD 5000</td>
<td>Fundamentals Of Biomedical Sciences</td>
</tr>
<tr>
<td>INTD 5008</td>
<td>Lab Rotations</td>
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<tr>
<td>Journal Club (any track)</td>
<td></td>
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</table>
Attend weekly research seminars (any track once/week)

**Spring**
- **MICR 5003** Core Concepts In Microbiology & Immunology 4
- **MICR 5029** Building Scientific Thinking Skills 2
- **INTD 6002** Ethics In Research 0.5
- **INTD 5008** Lab Rotations 2
- **MICR 6091** Seminars In Microbiology & Immunology Journal Club (any track)

**Summer**
Advanced Elective if available - see department
- **MICR 6097** Research 1-9

**Second Year**

**Fall**
- **MICR 5090** Acquiring Presentation Skills 1
- **MICR 5030** Microbiology And Immunology Track Journal Clubs 0.5
- **MICR 6091** Seminars In Microbiology & Immunology 1
- **MICR 6097** Research 1-9

Advanced Elective if needed - see department

**Spring**
- **MICR 5090** Acquiring Presentation Skills 1
- **MICR 5030** Microbiology And Immunology Track Journal Clubs 0.5
- **MICR 6091** Seminars In Microbiology & Immunology 1
- **MICR 6097** Research 1-9

**Summer**
Advanced Elective if available - see department
- **MICR 6097** Research 1-9

**Third Year**

**Fall**
- **MICR 5090** Acquiring Presentation Skills 1
- **MICR 5030** Microbiology And Immunology Track Journal Clubs 0.5
- **MICR 6091** Seminars In Microbiology & Immunology 1
- **MICR 6097** Research 1-9

**Spring**
- **MICR 5090** Acquiring Presentation Skills 1
- **MICR 5030** Microbiology And Immunology Track Journal Clubs 0.5
- **MICR 6091** Seminars In Microbiology & Immunology 1
- **MICR 6097** Research 1-9

**Summer**
- **MICR 6097** Research 1-9

**Fourth Year**

**Fall**
- **MICR 5090** Acquiring Presentation Skills 1
- **MICR 5030** Microbiology And Immunology Track Journal Clubs 0.5
- **MICR 6091** Seminars In Microbiology & Immunology 1
- **MICR 6097** Research 1-9

**Spring**
- **MICR 5090** Acquiring Presentation Skills 1

**Total Credit Hours:** 100.5-126.5

**Microbiology and Immunology Objectives/ Program Outcomes**

1. Students will be able to demonstrate proficiency in core (general) principles of the biomedical sciences and in principles specific to the discipline of microbiology/immunology.
2. The student will be able to conduct biomedical research.
3. Students will be able to demonstrate competence in written and verbal communication.
4. Students will be able to critically read and evaluate the biomedical literature.
5. Students will have a fundamental knowledge of ethics in research.
6. Students will complete dissertation research, and write and successfully defend their dissertation.

**Master of Science (MS)**

*The master’s degree is offered only under special circumstances upon recommendation by the program COGS and approval by the Graduate Dean.*

The graduate program in Microbiology focuses on microbial infection, host responses to infection, and other aspects of the immune system in health and disease. The track faculty members apply state-of-the-art experimental approaches, including genomics, proteomics and bioinformatics, as well as other genetic, biochemical, cellular and functional assays to study the regulation, host interactions and pathogenesis of viral, bacterial, fungal, and parasitic infections. In addition to mechanisms of host interactions with microorganisms, responses to allergens, tumor, and self-antigens are also investigated at the molecular,
cellular, and systemic levels. Students will have the opportunity to gain the broad knowledge and skills necessary for future research careers in many different areas of basic and clinical life sciences, including Microbial Genetics, Physiology and Pathogenesis, Infectious Diseases, Immune Regulation, Vaccinology, Tumor Immunology, Autoimmunity, and Allergy. Both master’s and doctoral degrees are offered under Microbiology.

Microbiology and Immunology Admissions Requirements

Applicants are required to have a minimum of a Bachelor’s degree from an accredited institution and a minimum GPA of 3.0/4.0. Applicants should have received credit for courses taken in:

- Biology 1 yr. as required for science majors
- Chemistry 1 yr. general chemistry and organic chemistry
- Physics 1 yr.
- Mathematics minimum of 1 semester of calculus

1 courses should include laboratory experience

All applicants must take the Graduate Record Examination (GRE). The GRE must be taken within the last 5 years and the TOEFL within the last 2 years. There is no minimum score required for the GRE.

In addition to the GRE, international applicants are also required to take one of two English proficiency tests: Test of English as a Foreign Language (TOEFL) or the International English Language Testing System (IELTS: Academic module only). The minimum required scores for the TOEFL are 560 for the paper test and 68 for the internet test. The minimum score on the academic IELTS is 6.5.

At least three letters of recommendation and a personal interview are required. The applicant must submit 3 essays stating the reasons for your interest in the program, a description of your professional goals and an outline of your undergraduate, industrial or summer research.

The admission committee makes its decision based on the candidate’s research experience, grade point average, personal statement, GRE score, interviews, letters of recommendations, and how the candidate matches up against other interested applicants.

Microbiology and Immunology Degree Requirements

A minimum of 30 credit hours and a minimum overall GPA of 3.0 is required for the M.S. degree. In addition, all master’s candidates must register for MICR 6098 Thesis for at least one semester in order to graduate. The student must successfully defend a thesis and be recommended by their program COGS for approval of their degree to the Dean of the Graduate School of Biomedical Sciences.

The following M.S. Plan of Study is basically the same as for the Ph.D. program. The main differences are the length of the program, and the Thesis requirement rather than Dissertation. Another difference, not shown, is that there is no Qualifying Examination requirement for the M.S. degree.

Microbiology and Immunology Plan of Study

M&I Track - Plan of Study (Course Curriculum Timeline)

First Year

<table>
<thead>
<tr>
<th>Fall</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>INTD 5000 Fundamentals Of Biomedical Sciences</td>
<td>8</td>
</tr>
<tr>
<td>INTD 5008 Lab Rotations</td>
<td>2</td>
</tr>
<tr>
<td>Journal Club (any track)</td>
<td></td>
</tr>
<tr>
<td>Attend weekly research seminars (any track once/week)</td>
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Spring

| MICR 5003 Core Concepts In Microbiology & Immunology | 4 |
| MICR 5029 Building Scientific Thinking Skills | 2 |
| INTD 6002 Ethics In Research | 0.5 |
| INTD 5008 Lab Rotations | 2 |
| MICR 5091 Current Topics In Microbiology And Immunology | 1-3 |
| Journal Club (any track) | |

Summer

| MICR 6097 Research | 1-9 |
| Advanced Elective if available - see department | |

Second Year

<table>
<thead>
<tr>
<th>Fall</th>
<th>Credit Hours</th>
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</thead>
<tbody>
<tr>
<td>MICR 5090 Acquiring Presentation Skills</td>
<td>1</td>
</tr>
<tr>
<td>MICR 5030 Microbiology And Immunology Track Journal Clubs</td>
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<tr>
<td>MICR 6091 Seminars In Microbiology &amp; Immunology</td>
<td>1</td>
</tr>
<tr>
<td>MICR 6097 Research</td>
<td>1-9</td>
</tr>
<tr>
<td>Advanced Elective if available - see department</td>
<td></td>
</tr>
</tbody>
</table>

Spring

| MICR 5090 Acquiring Presentation Skills | 1 |
| MICR 5030 Microbiology And Immunology Track Journal Clubs | 0.5 |
| MICR 6091 Seminars In Microbiology & Immunology | 1 |
| MICR 6097 Research | 1-9 |
| Advanced Elective if available - see department | |

Summer

| MICR 6097 Research | 1-9 |
| Advanced Elective if available - see department | |

Third Year

<table>
<thead>
<tr>
<th>Fall</th>
<th>Credit Hours</th>
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<tbody>
<tr>
<td>MICR 5090 Acquiring Presentation Skills</td>
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<td>MICR 5030 Microbiology And Immunology Track Journal Clubs</td>
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<td>MICR 6091 Seminars In Microbiology &amp; Immunology</td>
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<tr>
<td>MICR 6097 Research</td>
<td>1-9</td>
</tr>
<tr>
<td>MICR 6098 Thesis</td>
<td>1-9</td>
</tr>
</tbody>
</table>
the generation of transgenic and chimeric mice; biomolecular interaction required for electron, fluorescence, confocal, and atomic force microscopy, biochemistry are also available, as well as specialized instrumentation.

State-of-the-art facilities for cellular and molecular biological research and the Institute for Drug and Development in the Health Science Center.

The laboratories of the molecular medicine program faculty members are located in The University of Texas Institute of Biotechnology and The Institute for Drug and Development in the Health Science Center. The faculty is composed of both basic and clinical scientists drawn from the Departments of Biochemistry, Cellular and Structural Biology, Medicine, Molecular Medicine, Surgery, Pathology, and Physiology. The objective of the program is to train future scholars in the use of molecular biological approaches for the investigation of fundamental biomedical questions associate with the diagnosis and treatment of human diseases. Through completion of the program, students will have the opportunity to prepare for careers as independent investigators and teachers in cellular and molecular medicine.

The research interests of the faculty cover many areas of molecular and cell biology, including the molecular genetic basis of cancer and tumorigenesis, mechanisms of cancer metastasis, animal models of disease, transcriptional regulation, developmental, bone cell biology in health and disease, mouse genetics, molecular biological basis of aging, DNA repair, genetic recombination, eukaryotic cell-cycle regulation, protein structure, protein degradation, and signal transduction.

The laboratories of the molecular medicine program faculty members are located in The University of Texas Institute of Biotechnology and the Institute for Drug and Development in the Health Science Center. State-of-the-art facilities for cellular and molecular biological research and biochemistry are also available, as well as specialized instrumentation required for electron, fluorescence, confocal, and atomic force microscopy, the generation of transgenic and chimeric mice; biomolecular interaction studies; biopolymer synthesis; peptide and nucleic acid sequencing; and protein purification.

**Microbiology and Immunology Objectives/Program Outcomes**

1. Students will be able to demonstrate proficiency in core (general) principles of the biomedical sciences and in principles specific to the discipline of microbiology/immunology.
2. The student will be able to conduct biomedical research.
3. Students will be able to demonstrate competence in written and verbal communication.
4. Students will be able to critically read and evaluate the biomedical literature.
5. Students will have a fundamental knowledge of ethics in research.
6. Students will complete thesis research, and write and successfully defend their thesis.

**Molecular Medicine**

The program in Molecular Medicine offers a research oriented, interdisciplinary course of study leading to the M.S. and Ph.D. degrees. The faculty is composed of both basic and clinical scientists drawn from the Departments of Biochemistry, Cellular and Structural Biology, Medicine, Molecular Medicine, Surgery, Pathology, and Physiology. The objective of the program is to train future scholars in the use of molecular biological approaches for the investigation of fundamental biomedical questions associate with the diagnosis and treatment of human diseases. Through completion of the program, students will have the opportunity to prepare for careers as independent investigators and teachers in cellular and molecular medicine.

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**Doctor of Philosophy (PhD)**

The program in Molecular Medicine offers a research oriented, interdisciplinary course of study leading to the M.S. and Ph.D. degrees. The faculty is composed of both basic and clinical scientists drawn from the Departments of Biochemistry, Cellular and Structural Biology, Medicine, Molecular Medicine, Surgery, Pathology, and Physiology. The objective of the program is to train future scholars in the use of molecular biological approaches for the investigation of fundamental biomedical questions associate with the diagnosis and treatment of human diseases. Through completion of the program, students will have the opportunity to prepare for careers as independent investigators and teachers in cellular and molecular medicine.

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**Molecular Medicine Admissions Requirements**

Applicants are required to have a minimum of a Bachelor’s degree from an accredited institution and a minimum GPA of 3.0/4.0. Applicants should have received credit for courses taken in:

- Biology 2 yrs. as required for science majors
- Chemistry 1 yr. general chemistry and organic chemistry
- Physics 1 yr.
- Mathematics minimum of 1 semester of calculus

1 courses should include laboratory experience

All applicants must take the Graduate Record Examination (GRE). The GRE must be taken within the last 5 years and the TOEFL within the last 2 years. There is no minimum score required for the GRE.

In addition to the GRE, international applicants are also required to take one of two English proficiency tests: Test of English as a Foreign Language (TOEFL) or the International English Language Testing System (IELTS: Academic module only). The minimum required scores for the TOEFL are 560 for the paper test and 68 for the internet test. The minimum score on the academic IELTS is 6.5.
Three letters of recommendation are required. The applicant must submit 3 essays stating the reasons for your interest in the program, a description of your professional goals and an outline of your undergraduate, industrial or summer research. On campus recruitment interviews are conducted during February and March. Phone interviews for international application occur in January and February.

The admission committee makes its decision based on the candidate's research experience, grade point average, personal statement, GRE score, interviews, letters of recommendations, and how the candidate matches up against other interested applicants.

Molecular Medicine Degree Requirements

A minimum of 72 credit hours and a minimum overall GPA of 3.0 is required for the Ph.D. degree. In addition, all doctoral candidates must register for the MMED 7099 Dissertation for at least two semesters in order to graduate; only one of the terms may be a summer session. The student is required to demonstrate intellectual command of the subject area of the graduate program and capability to carry out independent and original investigation in the area. The student must successfully defend a dissertation and be recommended by their program COGS for approval of their degree to the Dean of the Graduate School of Biomedical Sciences.

Molecular Medicine Plan of Study

First Year

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<tr>
<th>Semester</th>
<th>Course</th>
<th>Credit Hours</th>
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<tr>
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<td>MMED 5019 Graduate Colloquium In Molecular Medicine</td>
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<tr>
<td></td>
<td>MMED 6016 Advanced Molecular Cell Bio</td>
<td>5</td>
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<td></td>
<td>MMED 5015 Modern Methods in Cell and Molecular Biology</td>
<td>1</td>
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<tr>
<td></td>
<td>MMED 6097 Research</td>
<td>1-9</td>
</tr>
<tr>
<td>Spring</td>
<td>MMED 5001 Molecular Medicine</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>MMED 6097 Research</td>
<td>1-9</td>
</tr>
<tr>
<td>Summer</td>
<td>MMED 6097 Research</td>
<td>1-9</td>
</tr>
</tbody>
</table>

Second Year

<table>
<thead>
<tr>
<th>Semester</th>
<th>Course</th>
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<tbody>
<tr>
<td>Fall</td>
<td>MMED 6091 Seminars On Molecular Medicine</td>
<td>1</td>
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<tr>
<td></td>
<td>MMED 6071 Supervised Teaching</td>
<td>1-9</td>
</tr>
<tr>
<td></td>
<td>MMED 6097 Research</td>
<td>1-9</td>
</tr>
<tr>
<td>Spring</td>
<td>MMED 6091 Seminars On Molecular Medicine</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>MMED 6071 Supervised Teaching</td>
<td>1-9</td>
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<tr>
<td></td>
<td>MMED 6097 Research</td>
<td>1-9</td>
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<tr>
<td>Summer</td>
<td>MMED 6097 Research</td>
<td>1-9</td>
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Third Year

<table>
<thead>
<tr>
<th>Semester</th>
<th>Course</th>
<th>Credit Hours</th>
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<tbody>
<tr>
<td>Fall</td>
<td>MMED 6091 Seminars On Molecular Medicine</td>
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<td></td>
<td>MMED 6097 Research</td>
<td>1-9</td>
</tr>
<tr>
<td>Spring</td>
<td>MMED 6091 Seminars On Molecular Medicine</td>
<td>1</td>
</tr>
</tbody>
</table>

Molecular Medicine Objectives/Program Outcomes

1. Proficiency in fundamental biological principles
2. Critically review and interpret research literature
3. Communicate effectively in writing
4. Communicate effectively in verbal presentation
5. Conduct independent research in an ethical manner

Master of Science (MS)

The master's degree is offered only under special circumstances and upon recommendation by the program COGS and approval by the Graduate Dean.

The program in Molecular Medicine offers a research oriented, interdisciplinary course of study leading to the M.S. and Ph.D. degrees. The faculty is composed of both basic and clinical scientists drawn from the Departments of Biochemistry, Cellular and Structural Biology, Medicine, Molecular Medicine, Surgery, Pathology, and Physiology. The objective of the program is to train future scholars in the use of molecular biological approaches for the investigation of fundamental biomedical questions associated with the diagnosis and treatment of human diseases. Through completion of the program, students will have the opportunity to prepare for careers as independent investigators and teachers in cellular and molecular medicine.

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The laboratories of the molecular medicine program faculty members are located in The University of Texas Institute of Biotechnology and the Institute for Drug and Development in the Health Science Center. State-of-the-art facilities for cellular and molecular biological research and biochemistry are also available, as well as specialized instrumentation required for electron, fluorescence, confocal, and atomic force microscopy, the generation of transgenic and chimeric mice; biomolecular interaction studies; biopolymer synthesis; peptide and nucleic acid sequencing; and protein purification.

Molecular Medicine Admissions Requirements

Applicants are required to have a minimum of a Bachelor’s degree from an accredited institution and a minimum GPA of 3.0/4.0. Applicants should have received credit for courses taken in:

- Biology 1 2 yrs. as required for science majors
- Chemistry 1 1 yr. general chemistry and organic chemistry
- Physics 1 yr.
- Mathematics minimum of 1 semester of calculus

1 courses should include laboratory experience

All applicants must take the Graduate Record Examination (GRE). The GRE must be taken within the last 5 years and the TOEFL within the last 2 years. There is no minimum score required for the GRE.

In addition to the GRE, international applicants are also required to take one of two English proficiency tests: Test of English as a Foreign Language (TOEFL) or the International English Language Testing System (IELTS: Academic module only). The minimum required scores for the TOEFL are 560 for the paper test and 68 for the internet test. The minimum score on the academic IELTS is 6.5.

Three letters of recommendation are required as is a statement from the applicant, indicating his or her objectives in graduate study. Also required are certified transcripts of all college and/or postgraduate work. A personal interview is required.

The admission committee makes its decision based on the candidate’s research experience, grade point average, personal statement, GRE score, interviews, letters of recommendations, and how the candidate matches up against other interested applicants.

Molecular Medicine Degree Requirements

A minimum of 30 credit hours and a minimum overall GPA of 3.0 is required for the M.S. degree. In addition, all master’s candidates must register for MMED 6098 Thesis for at least one semester in order to graduate. The student must successfully defend a thesis and be recommended by their program COGS for approval of their degree to the Dean of the Graduate School of Biomedical Sciences.

Molecular Medicine Plan of Study

First Year

<table>
<thead>
<tr>
<th>Fall</th>
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</tr>
</thead>
<tbody>
<tr>
<td>MMED 5019 Graduate Colloquium In Molecular Medicine</td>
<td>1</td>
</tr>
<tr>
<td>MMED 6016 Advanced Molecular Cell Bio</td>
<td>5</td>
</tr>
<tr>
<td>MMED 5015 Modern Methods in Cell and Molecular Biology</td>
<td>1</td>
</tr>
<tr>
<td>MMED 6097 Research</td>
<td>1-9</td>
</tr>
</tbody>
</table>

Spring

| MMED 5001 Molecular Medicine | 3 |
| MMED 6097 Research | 1-9 |
| Comprehensive exam | |

Summer

| MMED 6097 Research | 1-9 |

Second Year

| Fall | |
| MMED 6091 Seminars On Molecular Medicine | 1 |
| MMED 6071 Supervised Teaching | 1-9 |
| MMED 6097 Research | 1-9 |

Spring

| MMED 6091 Seminars On Molecular Medicine | 1 |
| MMED 6071 Supervised Teaching | 1-9 |
| MMED 6097 Research | 1-9 |

Summer

| MMED 6097 Research | 1-9 |

Total Credit Hours: 55.1-66.0

Molecular Medicine Objectives/Program Outcomes

1. Proficiency in fundamental biological principles
2. Critically review and interpret research literature
3. Communicate effectively in writing
4. Communicate effectively in verbal presentation
5. Conduct independent research in an ethical manner

Pharmacology

The discipline of pharmacology explores the mechanisms by which drugs cause biological effects. In the broadest sense, pharmacology is the study of how chemical agents, both natural and synthetic (i.e., drugs) affect biological systems. Research of the member of the Pharmacology track (currently 40 investigators) focuses in the areas of Neuropharmacology, Aging and Neurodegeneration, Autonomic and Endocrine Homeostasis, Pain Disorders, and Cancer Biology. All these areas are explored with an orientation towards drug development. A wide array of state-of-the-art methodologies including molecular, electrophysiological, neurochemical, genetics, imaging and behavioral techniques are employed. Pharmacology is often described as a bridge science because it incorporates knowledge and skills from a number of basic science disciplines, including physiology, biochemistry and cell and molecular biology. The interdisciplinary nature
of the field offers pharmacologists a variety of research opportunities not found in other fields of scientific inquiry. It is this flexibility as well as the potential for the practical application of research ("translational research") that attracts people into becoming pharmacologists.

**Doctor of Philosophy (PhD)**

The discipline of pharmacology explores the mechanisms by which drugs cause biological effects. In the broadest sense, pharmacology is the study of how chemical agents, both natural and synthetic (i.e., drugs) affect biological systems. Research of the member of the Pharmacology track (currently 40 investigators) focuses in the areas of Neuropharmacology, Aging and Neurodegeneration, Autonomic and Endocrine Homeostasis, Pain Disorders, and Cancer Biology. All these areas are explored with an orientation towards drug development. A wide array of state-of-the-art methodologies including molecular, electrophysiological, neurochemical, genetics, imaging and behavioral techniques are employed. Pharmacology is often described as a bridge science because it incorporates knowledge and skills from a number of basic science disciplines, including physiology, biochemistry and cell and molecular biology. The interdisciplinary nature of the field offers pharmacologists a variety of research opportunities not found in other fields of scientific inquiry. It is this flexibility as well as the potential for the practical application of research ("translational research") that attracts people into becoming pharmacologists.

**Pharmacology Admissions Requirements**

Applicants are required to have a minimum of a Bachelor’s degree from an accredited institution and a minimum GPA of 3.0/4.0. Applicants should have received credit for courses taken in:

- Biology \(^1\) 2 yrs. as required for science majors
- Chemistry \(^1\) 1 yr. general chemistry and organic chemistry
- Physics 1 yr.
- Mathematics minimum of 1 semester of calculus

\(^1\) courses should include laboratory experience

All applicants must take the Graduate Record Examination (GRE). The GRE must be taken within the last 5 years and the TOEFL within the last 2 years. There is no minimum score required for the GRE.

In addition to the GRE, international applicants are also required to take one of two English proficiency tests: Test of English as a Foreign Language (TOEFL) or the International English Language Testing System (IELTS: Academic module only). The minimum required scores for the TOEFL are 560 for the paper test and 68 for the internet test. The minimum score on the academic IELTS is 6.5.

Three letters of recommendation are required. The applicant must submit 3 essays stating the reasons for your interest in the program, a description of your professional goals and an outline of your undergraduate, industrial or summer research. On campus recruitment interviews are conducted during February and March. Phone interviews for international application occur in January and February.

The admission committee makes its decision based on the candidate’s research experience, grade point average, personal statement, GRE score, interviews, letters of recommendation, and how the candidate matches up against other interested applicants.

**Pharmacology Degree Requirements**

A minimum of 72 credit hours and a minimum overall GPA of 3.0 is required for the Ph.D. degree. In addition, all doctoral candidates must register for the PHAR 7099 Dissertation for at least two semesters in order to graduate; only one of the terms may be a summer session. The student is required to demonstrate intellectual command of the subject area of the graduate program and capability to carry out independent and original investigation in the area. The student must successfully defend a dissertation and be recommended by their program COGS for approval of their degree to the Dean of the Graduate School of Biomedical Sciences.

**Sample 5-year plan of study for PhD (Neuroscience Track) \(^1\)**

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<thead>
<tr>
<th>First Year</th>
<th>Credit Hours</th>
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</thead>
<tbody>
<tr>
<td><strong>Fall</strong></td>
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<tr>
<td>INTD 5000</td>
<td>Fundamentals Of Biomedical Sciences</td>
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<td>INTD 5008</td>
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<tr>
<td>INTO 5040</td>
<td>Fundamentals Of Neuroscience1: Molecular, &amp; PHYL 5041</td>
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<tr>
<td>INTO 6090</td>
<td>Seminar</td>
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<tr>
<td><strong>Summer</strong></td>
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<tr>
<td>PHAR 5020</td>
<td>Basics Of Research Design (Elective)</td>
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<tr>
<td>PHAR 5092</td>
<td>Special Problems In Pharmacology: Research Practicum</td>
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<tr>
<td>INTO 6097</td>
<td>Research</td>
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<table>
<thead>
<tr>
<th>Second Year</th>
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<tbody>
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<td><strong>Fall</strong></td>
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### Sample 5-year plan of study for PhD (Pharmacology Track)  

#### First Year

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#### Second Year

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#### Third Year

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#### Fourth Year

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<td>PHAR 5090</td>
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#### Fifth Year

<table>
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<tr>
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<table>
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<tr>
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<table>
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<tbody>
<tr>
<td>PHAR 5090</td>
<td>1-9</td>
</tr>
</tbody>
</table>

---

1. The student’s last two semesters they should register for PHAR 7099 Dissertation in place of PHAR 6097 Research

2. A total of 4 credit hours of Electives/Micro-electives are required. These credits should be obtained by the end of the second year. Please see department.

---

**Pharmacology Objectives/Program Outcomes**

- The student will demonstrate proficiency in core coursework.
- The student will be able to conduct independent research
- The student will be able to critically evaluate current scientific literature
• The student will be able to communicate effectively in writing
• The student will be able to communicate effectively in an oral format

Master of Science (MS)

The master’s degree is offered only under special circumstances and upon recommendation by the program COGS and approval by the Graduate Dean.

The discipline of pharmacology explores the mechanisms by which drugs cause biological effects. In the broadest sense, pharmacology is the study of how chemical agents, both natural and synthetic (i.e., drugs) affect biological systems. Research of the member of the Pharmacology track (currently 40 investigators) focuses in the areas of Neuropharmacology, Aging and Neurodegeneration, Autonomic and Endocrine Homeostasis, Pain Disorders, and Cancer Biology. All these areas are explored with an orientation towards drug development. A wide array of state-of-the-art methodologies including molecular, electrophysiological, neurochemical, genetics, imaging and behavioral techniques are employed. Pharmacology is often described as a bridge science because it incorporates knowledge and skills from a number of basic science disciplines, including physiology, biochemistry and cell and molecular biology. The interdisciplinary nature of the field offers pharmacologists a variety of research opportunities not found in other fields of scientific inquiry. It is this flexibility as well as the potential for the practical application of research (“translational research”) that attracts people into becoming pharmacologists.

Pharmacology Admissions Requirements

Applicants are required to have a minimum of a Bachelor’s degree from an accredited institution and a minimum GPA of 3.0/4.0. Applicants should have received credit for courses taken in:

* Biology\(^1\) 2 yrs. as required for science majors
* Chemistry\(^1\) 1 yr. general chemistry and organic chemistry
* Physics 1 yr.
* Mathematics minimum of 1 semester of calculus

\(^1\) courses should include laboratory experience

All applicants must take the Graduate Record Examination (GRE). The GRE must be taken within the last 5 years and the TOEFL within the last 2 years. There is no minimum score required for the GRE.

In addition to the GRE, international applicants are also required to take one of two English proficiency tests: Test of English as a Foreign Language (TOEFL) or the International English Language Testing System (IELTS: Academic module only). The minimum required scores for the TOEFL are 560 for the paper test and 68 for the internet test. The minimum score on the academic IELTS is 6.5.

Three letters of recommendation and a personal interview are required. The applicant must submit 3 essays stating the reasons for your interest in the program, a description of your professional goals and an outline of your undergraduate, industrial or summer research.

The admission committee makes its decision based on the candidate’s research experience, grade point average, personal statement, GRE score, interviews, letters of recommendations, and how the candidate matches up against other interested applicants.

Pharmacology Degree Requirements

A minimum of 30 credit hours and a minimum overall GPA of 3.0 is required for the M.S. degree. In addition, all master’s candidates must register for PHAR 6098 Thesis for at least one semester in order to graduate. The student must successfully defend a thesis and be recommended by their program COGS for approval of their degree to the Dean of the Graduate School of Biomedical Sciences.

Pharmacology Sample Plans of Study

MS in Neuroscience \(^1\)

**First Year**

**Spring**

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>INTD 5040</td>
<td>Fundamentals Of Neuroscience1: Molecular, &amp; PHYL 5041 Cellular, &amp; Developmental Neuroscience</td>
<td>3</td>
</tr>
<tr>
<td>INTD 5008</td>
<td>Lab Rotations</td>
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**Second Year**

**Spring**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>INTD 5000</td>
<td>Fundamentals Of Biomedical Sciences</td>
<td>8</td>
</tr>
<tr>
<td>INTD 5008</td>
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<td>2</td>
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**Second Year**

**Summer**

<table>
<thead>
<tr>
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<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHAR 5092</td>
<td>Special Problems In Pharmacology: Research Practicum</td>
<td>1-9</td>
</tr>
<tr>
<td>INTD 6097</td>
<td>Research</td>
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**Fall**

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<tbody>
<tr>
<td>INTD 6000</td>
<td>Ethics In Research</td>
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</tr>
<tr>
<td>INTD 6090</td>
<td>Seminar</td>
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**Second Year**

**Spring**

<table>
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<tr>
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<td>PHAR 6097</td>
<td>Research</td>
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<td>Qualifying Exam</td>
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**Fall**

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<tbody>
<tr>
<td>INTD 5043</td>
<td>Fundamentals Of Neuroscience 2: Systems Neuroscience</td>
<td>3</td>
</tr>
<tr>
<td>INTD 5047</td>
<td>Neuroanatomy</td>
<td>2</td>
</tr>
<tr>
<td>CSBL 5095</td>
<td>Experimental Design And Data Analysis</td>
<td>2</td>
</tr>
<tr>
<td>INTD 6090</td>
<td>Seminar</td>
<td>1</td>
</tr>
<tr>
<td>PHAR 6097</td>
<td>Research</td>
<td>0.5-9</td>
</tr>
</tbody>
</table>
Third Year
Spring
INTD 6090 Seminar 1
PHAR 6098 Thesis 1-9
Summer
PHAR 6098 Thesis 1-9
Fall
INTD 6090 Seminar 1
PHAR 6098 Thesis 1-9
Fourth Year
Spring
INTD 6090 Seminar 1
PHAR 6098 Thesis 1-9
Summer
PHAR 6098 Thesis 1-9
Fall
INTD 6090 Seminar 1
PHAR 6098 Thesis 1-9
Fifth Year
Spring
INTD 6090 Seminar 1
PHAR 6098 Thesis 1-9
Summer
PHAR 6098 Thesis 1-9
Fall
INTD 6090 Seminar 1
PHAR 6098 Thesis 1-9

Total Credit Hours: 121.5-129.5

1 A minimum of 30 semester hours is required to grant a MS degree, and further requirements are outlined in the Neuroscience handbook.

MS in Pharmacology
First Year
Fall
INTD 5000 Fundamentals Of Biomedical Sciences 8
INTD 5008 Lab Rotations 2
Spring
PHAR 5014 Therapeutics 3
PHAR 5013 Principles Of Pharmacology 1 3
INTD 6090 Seminar 1
INTD 5008 Lab Rotations 2
Summer
PHAR 5020 Basics Of Research Design 1.5
PHAR 5092 Special Problems In Pharmacology: Research Practicum 1-9
INTD 6097 Research 0.5-9
Second Year
Fall
CSBL 5095 Experimental Design And Data Analysis 2
PHAR 5090 Seminar 1-9
PHAR 6097 Research 0.5-9

PHAR Electives 1
Spring
INTD 6002 Ethics In Research 0.5
PHAR 5090 Seminar 1-9
PHAR 6097 Research 0.5-9
Summer
PHAR 6097 Research 0.5-9
Fall
PHAR 5090 Seminar 1-9
PHAR 5090 Seminar 1-9
Spring
PHAR 6098 Thesis 1-9
PHAR 5090 Seminar 1-9
Summer
PHAR 6098 Thesis 1-9
Fourth Year
Fall
PHAR 6098 Thesis 1-9
PHAR 5090 Seminar 1-9
Spring
PHAR 6098 Thesis 1-9
PHAR 5090 Seminar 1-9
Summer
PHAR 6098 Thesis 1-9
Fifth Year
Fall
PHAR 6098 Thesis 1-9
PHAR 5090 Seminar 1-9
Spring
PHAR 6098 Thesis 1-9
PHAR 5090 Seminar 1-9
Summer
PHAR 6098 Thesis 1-9

Total Credit Hours: 108.5-133.5

1 A minimum of 30 semester hours is required to grant an MS degree, and further requirements are outlined in the Pharmacology handbook.

Pharmacology Objectives/Program Outcomes
• The student will be able to conduct independent research
• The student will demonstrate proficiency in core coursework.
• The student will be able to critically evaluate current scientific literature
• The student will be able to communicate effectively in writing
• The student will be able to communicate effectively in an oral format
Physiology

Physiology is the study of the structure, and function, and integration of the human body. In the pioneering days, research efforts were primarily directed at tissues and organs. This research continues to this day and has resulted in a comprehensive picture of the function of the human body. As molecular and genetic methods have come of age, physiologists have implemented these techniques to elucidate the molecular mechanisms that underlie physiological function. It is now clear that in order to develop a complete understanding of the normal and dysfunctional human body, we must ask questions at all levels, from the molecular to the cellular, to the organ, to the whole organism.

Graduate studies leading to a Doctor of Philosophy degree in the basic biomedical sciences are offered in the Integrated Multidisciplinary Graduate Program (IMGP). In this program, all incoming students have a common entry point. Within the first year, students select one of nine research tracks based on their specific interests. The Department of Physiology administers the Molecular, Cellular, and Integrative Physiology (MCIP) track.

Doctor of Philosophy (PhD)

Physiology is the study of the structure, and function, and integration of the human body. In the pioneering days, research efforts were primarily directed at tissues and organs. This research continues to this day and has resulted in a comprehensive picture of the function of the human body. As molecular and genetic methods have come of age, physiologists have implemented these techniques to elucidate the molecular mechanisms that underlie physiological function. It is now clear that in order to develop a complete understanding of the normal and dysfunctional human body, we must ask questions at all levels, from the molecular to the cellular, to the organ, to the whole organism.

Graduate studies leading to a Doctor of Philosophy degree in the basic biomedical sciences are offered in the Integrated Multidisciplinary Graduate Program (IMGP). In this program, all incoming students have a common entry point. Within the first year, students select one of nine research tracks based on their specific interests. The Department of Physiology administers the Molecular, Cellular, and Integrative Physiology (MCIP) track.

Physiology Admissions Requirements

Applicants are required to have a minimum of a Bachelor’s degree from an accredited institution and a minimum GPA of 3.0/4.0. Applicants should have received credit for courses taken in:

- Biology 1 2 yrs. as required for science majors
- Chemistry 1 1 yr. general chemistry and organic chemistry
- Physics 1 yr.
- Mathematics minimum of 1 semester of calculus

1 courses should include laboratory experience

All applicants must take the Graduate Record Examination (GRE). The GRE must be taken within the last 5 years and the TOEFL within the last 2 years. There is no minimum score required for the GRE.

In addition to the GRE, international applicants are also required to take one of two English proficiency tests: Test of English as a Foreign Language (TOEFL) or the International English Language Testing System (IELTS: Academic module only). The minimum required scores for the TOEFL are 560 for the paper test and 68 for the internet test. The minimum score on the academic IELTS is 6.5.

Three letters of recommendation are required. The applicant must submit 3 essays stating the reasons for your interest in the program, a description of your professional goals and an outline of your undergraduate, industrial or summer research. On campus recruitment interviews are conducted during February and March. Phone interviews for international application occur in January and February.

The admission committee makes its decision based on the candidate’s research experience, grade point average, personal statement, GRE score, interviews, letters of recommendations, and how the candidate matches up against other interested applicants.

Physiology Degree Requirements

A minimum of 72 credit hours and a minimum overall GPA of 3.0 is required for the Ph.D. degree. In addition, all doctoral candidates must register for PHYL 7099 Dissertation for at least two semesters in order to graduate; only one of the terms may be a summer session. The student is required to demonstrate intellectual command of the subject area of the graduate program and capability to carry out independent and original investigation in the area. The student must successfully defend a dissertation and be recommended by their program COGS for approval of their degree to the Dean of the Graduate School of Biomedical Sciences.

Physiology Track

**First Year**

<table>
<thead>
<tr>
<th>Semester</th>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
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<tbody>
<tr>
<td>Fall</td>
<td>INTD 5008</td>
<td>Lab Rotations</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>INTD 5000</td>
<td>Fundamentals Of Biomedical Sciences</td>
<td>8</td>
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<tr>
<td>Spring</td>
<td>INTD 5008</td>
<td>Lab Rotations</td>
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<tr>
<td></td>
<td>PHYL 5045</td>
<td>Mammalian Physiology</td>
<td>4</td>
</tr>
<tr>
<td>Summer</td>
<td>PHYL 6097</td>
<td>Research 1</td>
<td>1-9</td>
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**Second Year**

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<th>Semester</th>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
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<tr>
<td>Fall</td>
<td>PATH 5021 or Biostatistics</td>
<td>3</td>
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<td>CSBL 5095</td>
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<td></td>
<td>PHYL 6091</td>
<td>Selected Topics Of Physiology (see table below)</td>
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</tr>
<tr>
<td></td>
<td>PHYL 6090</td>
<td>Seminar</td>
<td>1</td>
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<tr>
<td></td>
<td>PHYL 6097</td>
<td>Research</td>
<td>1-9</td>
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<tr>
<td>Spring</td>
<td>INTD 6002</td>
<td>Ethics In Research</td>
<td>0.5</td>
</tr>
<tr>
<td></td>
<td>PHYL 6091</td>
<td>Selected Topics Of Physiology (see table below)</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>PHYL 6090</td>
<td>Seminar</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>PHYL 6097</td>
<td>Research</td>
<td>1-9</td>
</tr>
</tbody>
</table>

Qualifying Exam (QE) proposal due prior to May 1st.

Summer
PHYL 6097 Research 1-9

Third Year

Fall
PHYL 6090 Seminar 1
PHYL 7099 Dissertation 1-9

Spring
PHYL 6090 Seminar 1
PHYL 7099 Dissertation 1-9

Summer
PHYL 6097 Research 1-9

Fourth Year

Fall
PHYL 6090 Seminar 1
PHYL 7099 Dissertation 1-9

Spring
PHYL 6090 Seminar 1
PHYL 7099 Dissertation 1-9

Summer
PHYL 6097 Research 1-9

Fifth Year

Fall
PHYL 6090 Seminar 1
PHYL 7099 Dissertation 1-9

Spring
PHYL 6090 Seminar 1
PHYL 7099 Dissertation 1-9

Summer
PHYL 6097 Research 1-9

Total Credit Hours: 104.5-128.5

1 Students may take the full course but are only required to take three out of the four modules (PHYL 5041 Excitable Membranes, PHYL 5042 Cardiovascular Physiology, PHYL 5043 Respiratory & Renal Physiology, PHYL 5044 Metabolism/Hormones/GI System).

Other courses -- Selected Topics in Physiology or coursework as desired by mentor.

All students are required to submit a dissertation research proposal the Spring semester following passing the Qualifying Exam. Dissertation research proposal is to be presented during the PHYL 6090 Seminar Spring Student Seminar course.

Students are required to attend Monday Physiology Department Seminars/Special Seminars followed by student roundtable luncheon.

Note: MD/PhD students must meet the same requirements as all other students in the Physiology Track, with the exception of Fall I courses.

PHYL 6091 Selected Topics in Physiology

At least two courses selected from among the offerings in: ¹

PHYL 6091-01: Cardiovascular
PHYL 6091-03: Cell Biology in Neural Science
PHYL 6091-04: Endocrine and Metabolism
PHYL 6091-05: Molecular Physiology

PHYL 6091-07: Ion Channels in Disease

Courses that may be substituted for one of these selections:

   INTD 5040  Fundamentals Of Neuroscience1:
             Molecular, Cellular, & Developmental Neuroscience
   INTD 5043  Fundamentals Of Neuroscience 2:
             Systems Neuroscience
   INTD 5081  Topics In Cardiovascular Research
   INTD 7002  Neurobiology Of Learning And Memory
   CSBL 6058  Neurobiology Of Aging
   CSBL 5023  Development
   CSBL 5024  Genomics
   CSBL 5026  Stem Cell Biology

¹ Not all selected topics are offered each semester, please discuss with Track Leader/Academic Coordinator for more details. Substituted courses will require approval from Track Leader/COGS.

Physiology Objectives/Program Outcomes

1. The student will be able to critically review and interpret research literature.
2. The student will be able to demonstrate proficient understanding of core physiological principles.
3. The student will be able to communicate effectively in verbal presentations.
4. The student will be able to demonstrate the ability to conduct independent research.
5. The student will be able to effectively communicate in writing.

Master of Science (MS)

The master’s degree is offered only under special circumstances and upon recommendation by the program COGS and approval by the Graduate Dean.

Physiology is the study of the structure, and function, and integration of the human body. In the pioneering days, research efforts were primarily directed at tissues and organs. This research continues to this day and has resulted in a comprehensive picture of the function of the human body. As molecular and genetic methods have come of age, physiologists have implemented these techniques to elucidate the molecular mechanisms that underlie physiological function. It is now clear that in order to develop a complete understanding of the normal and dysfunctional human body, we must ask questions at all levels, from the molecular to the cellular, to the organ, to the whole organism.

Graduate studies leading to a Doctor of Philosophy degree in the basic biomedical sciences are offered in the Integrated Multidisciplinary Graduate Program (IMGP). In this program, all incoming students have a common entry point. Within the first year, students select one of nine research tracks based on their specific interests. The Department of Physiology administers the Molecular, Cellular, and Integrative Physiology (MCIP) track.
Physiology Admissions Requirements
Applicants are required to have a minimum of a Bachelor’s degree from an accredited institution and a minimum GPA of 3.0/4.0. Applicants should have received credit for courses taken in:

- Biology \(^1\) 2 yrs. as required for science majors
- Chemistry \(^1\) 1 yr. general chemistry and organic chemistry
- Physics 1 yr.
- Mathematics minimum of 1 semester of calculus

\(^1\) courses should include laboratory experience

All applicants must take the Graduate Record Examination (GRE). The GRE must be taken within the last 5 years and the TOEFL within the last 2 years. There is no minimum score required for the GRE.

In addition to the GRE, international applicants are also required to take one of two English proficiency tests: Test of English as a Foreign Language (TOEFL) or the International English Language Testing System (IELTS: Academic module only). The minimum required scores for the TOEFL are 560 for the paper test and 68 for the internet test. The minimum score on the academic IELTS is 6.5.

Three letters of recommendation and a personal interview are required. The applicant must submit 3 essays stating the reasons for your interest in the program, a description of your professional goals and an outline of your undergraduate, industrial or summer research.

The admission committee makes its decision based on the candidate’s research experience, grade point average, personal statement, GRE score, interviews, letters of recommendations, and how the candidate matches up against other interested applicants.

Physiology Degree Requirements
A minimum of 30 credit hours and a minimum overall GPA of 3.0 is required for the M.S. degree. In addition, all master’s candidates must register for PHYL 6098 Thesis for at least one semester in order to graduate. The student must successfully defend a thesis and be recommended by their program COGS for approval of their degree to the Dean of the Graduate School of Biomedical Sciences.

Physiology Plan of Study

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<thead>
<tr>
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<th>Fall</th>
<th>Credit Hours</th>
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<tbody>
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<td>INTD 5008</td>
<td>Lab Rotations</td>
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<tr>
<td>INTD 5000</td>
<td>Fundamentals Of Biomedical Sciences</td>
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</table>

| Spring | PHYL 5045 | Mammalian Physiology \(^1\) | 2 |
|        | PHYL 6097 | Research | 4 |

| Summer | PHYL 6097 | Research | 1-9 |

<table>
<thead>
<tr>
<th>Second Year</th>
<th>Fall</th>
<th>Credit Hours</th>
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<tr>
<td>PATH 5021 or Biostatistics</td>
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<td>CSBL 5095</td>
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<tr>
<th>Third Year</th>
<th>Fall</th>
<th>Credit Hours</th>
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<tbody>
<tr>
<td>PHYL 6097</td>
<td>Research</td>
<td>1-9</td>
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</table>

| Spring | PHYL 6097 | Research | 1-9 |

| Summer | PHYL 6097 | Research | 1-9 |

<table>
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<th>Fourth Year</th>
<th>Fall</th>
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<td>Research</td>
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</tr>
<tr>
<td>PHYL 6090</td>
<td>Seminar</td>
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</table>

| Spring | PHYL 6097 | Research | 1-9 |

| Summer | PHYL 6097 | Research | 1-9 |

<table>
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<th>Fall</th>
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<tr>
<td>PHYL 6090</td>
<td>Seminar</td>
<td>1</td>
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</tbody>
</table>

| Spring | PHYL 6097 | Research | 1-9 |

| Summer | PHYL 6097 | Research | 1-9 |

Total Credit Hours: 111.5-127.5

\(^1\) Students may take the full course but are only required to take three out of the four modules (PHYL 5041 Excitable Membranes, PHYL 5042 Cardiovascular Physiology, PHYL 5043 Respiratory & Renal Physiology, and PHYL 5044 Metabolism/Hormones/GI System).

Other courses – Selected Topics in Physiology or coursework as desired by mentor.

All students are required to submit a thesis research proposal the Spring semester following passing the Qualifying Exam. The thesis research proposal is presented during the spring PHYL 6090 Seminar.

Students are required to attend Monday Physiology Department Seminars/ Special Seminars followed by student roundtable luncheon.
Physiology Objectives/Program Outcomes
1. The student will be able to critically review and interpret research literature.
2. The student will be able to demonstrate proficient understanding of core physiological principles.
3. The student will be able to communicate effectively in verbal presentations.
4. The student will be able to demonstrate the ability to conduct independent research.
5. The student will be able to effectively communicate in writing.

Radiological Sciences
The graduate program in Radiological Sciences trains students in: (1) the sciences and technologies that are used to produce radiant energy forms, (2) the scientific knowledge gained by using radiant energy forms to understand and modify biological processes, and (3) the application of radiant energy forms for the diagnosis and treatment of human diseases. The degrees offered are: (1) Ph.D. degree specializing in Radiation Biology, or (3) Master of Science degree specializing in Medical Health Physics.

The curriculum provides an opportunity for students to acquire a core of fundamental knowledge through a synergistic program of formal courses, seminars, teaching opportunities, and hands-on research experience. Each student is encouraged to design with the assistance of a research advisor, an individual course of study consistent with her/his career goals.

Doctor of Philosophy (PhD)
The graduate program in Radiological Sciences trains students in: (1) the sciences and technologies that are used to produce radiant energy forms, (2) the scientific knowledge gained by using radiant energy forms to understand and modify biological processes, and (3) the application of radiant energy forms for the diagnosis and treatment of human diseases. The degrees offered are: (1) Ph.D. degree specializing in Radiation Biology, or (3) Master of Science degree specializing in Medical Health Physics.

The curriculum provides an opportunity for students to acquire a core of fundamental knowledge through a synergistic program of formal courses, seminars, teaching opportunities, and hands-on research experience. Each student is encouraged to design with the assistance of a research advisor, an individual course of study consistent with her/his career goals.

Radiological Sciences Admissions Requirements
Graduate Record Exam (GRE) general test and a minimum GPA of 3.0/4.0 are required. Three letters of recommendation are required. During the application process, essays stating the reasons for your interest in Radiological Sciences, description of professional goals and an outline of your undergraduate, industrial or summer research, teaching experience and clinical experience are required.

A Baccalaureate degree in a natural science or engineering discipline is required. A degree in any other field must have provided sufficient science and mathematics courses to give the applicant the equivalent of a degree in natural science or engineering. Applicants must have undergraduate credit for the following courses: 1) Biology: Two semesters of general biology; 2) Chemistry: Two semesters of general chemistry; 3) Physics: Two semesters of general physics; 4) Mathematics: Through calculus and ordinary differential equations; 5) Computer Science: Introduction to Computer Science (one semester). Admission process includes review of academic history as well as experience and goals of applicant. Telephone and on-campus interviews are conducted for qualified applicants selected by the Admissions Committee.

Radiological Sciences Degree Requirements
A minimum of 72 credit hours and a minimum overall GPA of 3.0 is required for the Ph.D. degree. In addition, all doctoral candidates must register for RADI 7099 Dissertation for at least two semesters in order to graduate; only one of the terms may be a summer session. The student is required to demonstrate intellectual command of the subject area of the graduate program and capability to carry out independent and original investigation in the area. The student must successfully defend a dissertation and be recommended by their program COGS for approval of their degree to the Dean of the Graduate School of Biomedical Sciences.

Radiological Sciences - Human Imaging Track

<table>
<thead>
<tr>
<th>First Year</th>
<th>Credit Hours</th>
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<tbody>
<tr>
<td>Fall</td>
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</tr>
<tr>
<td>Elective Course</td>
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</tr>
<tr>
<td>RADI 6097 Research</td>
<td>1-9</td>
</tr>
<tr>
<td>RADI 5090 Sem Radiological Science</td>
<td>1-9</td>
</tr>
<tr>
<td>Spring</td>
<td></td>
</tr>
<tr>
<td>Elective Course</td>
<td></td>
</tr>
<tr>
<td>RADI 6097 Research</td>
<td>1-9</td>
</tr>
<tr>
<td>Summer</td>
<td></td>
</tr>
<tr>
<td>RADI 6097 Research</td>
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</table>

<table>
<thead>
<tr>
<th>Second Year</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fall</td>
<td></td>
</tr>
<tr>
<td>RADI 5015 Physics Of Diagnostic Imaging 1</td>
<td>3</td>
</tr>
<tr>
<td>RADI 5025 Molecular Oncology &amp; Radiobiology</td>
<td>1.5-3</td>
</tr>
<tr>
<td>RADI 6049 Intro To Magnetic Resonance</td>
<td>2</td>
</tr>
<tr>
<td>RADI 5090 Sem Radiological Science</td>
<td>1-9</td>
</tr>
<tr>
<td>MEDI 5070 Responsible Conduct Of Patient-Oriented Clinical Research</td>
<td>2</td>
</tr>
<tr>
<td>Clinical Investigation Elective - see department</td>
<td>2</td>
</tr>
<tr>
<td>Spring</td>
<td></td>
</tr>
<tr>
<td>RADI 6012 Phys Nuclear Medi Imaging</td>
<td>3</td>
</tr>
<tr>
<td>RADI 5018 Physics Measurements In Imaging Lab</td>
<td>2</td>
</tr>
<tr>
<td>RADI 6071 Supervised Teaching</td>
<td>1-9</td>
</tr>
<tr>
<td>INTD 6002 Ethics In Research</td>
<td>0.5</td>
</tr>
<tr>
<td>Clinical Investigation Elective - see department</td>
<td>2</td>
</tr>
</tbody>
</table>
### Medical Physics

#### First Year

**Fall**
- RADI 5011 Radiation And Nuclear Physics 3
- RADI 5005 Fundamentals Of Radiation Dosimetry 3
- RADI 5015 Physics Of Diagnostic Imaging 3
- RADI 5090 Sem Radiological Science 1

**Spring**
- RADI 5020 Principles of Health Physics 1 3
- RADI 6024 Radiological Anatomy & Physiology 3
- RADI 6030 Physics Of Radiotherapy 3

---

**Second Year**

**Fall**
- RADI 5025 Molecular Oncology & Radiobiology 1.5
- RADI 5090 Sem Radiological Science 1
- RADI 6049 Intro To Magnetic Resonance 2
- RADI 6051 Statistical Parametric Mapping 3

**Spring**
- Elective Course - see department 3

**Third Year**

**Fall**
- RADI 5090 Sem Radiological Science 1
- Elective Course - see department 3
- RADI 6097 Research 1

**Spring**
- RADI 6097 Research 1

**Fourth Year**

**Fall**
- RADI 7099 Dissertation 1

**Spring**
- RADI 7099 Dissertation 1

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Total Credit Hours: 119.5
Radiological Sciences - Radiation Biology
Track

First Year
Fall
RADI 5025 Molecular Oncology & Radiobiology 1.5-3
INTD 5000 Fundamentals Of Biomedical Sciences 8

Spring
RADI 5010 Medical Biophysics 3
RADI 6060 Biophotonics and Optical Imaging 3
INTD 5007 Advanced Cellular And Molecular Biology 4

Summer
RADI 5007 Statistics in the Radiological Sciences 2
RADI 6097 Research 1-9

Second Year
Fall
RADI 5015 Physics Of Diagnostic Imaging 1 3
Elective Course - see department 3
RADI 6097 Research 1-9

Spring
RADI 5020 Principles of Health Physics 1 3
RADI 6024 Radiological Anatomy & Physiology 3
RADI 5090 Sem Radiological Science 1-9
INTD 6002 Ethics In Research 0.5
RADI 6097 Research 1-9

Summer
RADI 6097 Research 1-9

Third Year
Fall
RADI 5090 Sem Radiological Science 1-9
Elective Course - see department 3
RADI 6097 Research 1-9

Spring
RADI 5090 Sem Radiological Science 1-9
Elective Course - see department 3
RADI 6097 Research 1-9

Fourth Year
Fall
RADI 6071 Supervised Teaching 1-9
RADI 6097 Research 1-9
Elective Course - see department

Spring
RADI 6097 Research 1-9

Fifth Year
Fall
RADI 6097 Research 1-9

Spring
RADI 7099 Dissertation 1-9

Summer
RADI 6097 Research 1-9

Total Credit Hours: 114.0-122.0

Radiological Sciences Objectives/Program Outcomes
1. Proficiency in Core Biomedical and Radiological Science Principles
2. Capacity to Conduct Biomedical Research
3. Critically Review and Interpret Research Literature
4. Demonstrate Competence in Written Communication
5. Demonstrate Competence in Verbal Communication
6. Conduct Research in an Ethical Manner

Master of Science (MS)
The graduate program in Radiological Sciences trains students in: (1) the sciences and technologies that are used to produce radiant energy forms, (2) the scientific knowledge gained by using radiant energy forms to understand and modify biological processes, and (3) the application of radiant energy forms for the diagnosis and treatment of human diseases. The degrees offered are: (1) Ph.D. degree specializing in Radiation Biology, or (3) Master of Science degree specializing in Medical Health Physics.

The curriculum provides an opportunity for students to acquire a core of fundamental knowledge through a synergistic program of formal courses, seminars, teaching opportunities, and hands-on research experience. Each student is encouraged to design with the assistance of a research advisor, an individual course of study consistent with her/his career goals.

Radiological Sciences Admissions Requirements
Graduate Record Exam (GRE) general test and a minimum GPA of 3.0/4.0 are required. Three letters of recommendation are required. During the application process, essays stating the reasons for your interest in Radiological Sciences - Medical Health Physics, description of professional goals and an outline of your undergraduate, industrial or summer research, teaching experience and clinical experience are required.

A Baccalaureate degree in a natural science or engineering discipline is required. A degree in any other field must have provided sufficient science and mathematics courses to give the applicant the equivalent of a degree in natural science or engineering. Applicants must have undergraduate credit for the following courses: 1) Biology: Two semesters of general
Radiological Sciences Degree Requirements

A minimum of 30 credit hours and a minimum overall GPA of 3.0 is required for the M.S. degree. In addition, all master’s candidates must register for RADI 6098 Thesis for at least one semester in order to graduate. The student must successfully defend a thesis and be recommended by their program COGS for approval of their degree to the Dean of the Graduate School of Biomedical Sciences.

Radiological Sciences Sample Plan of Study

Medical Health Physics Plan of Study

First Year

Fall

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>RADI 5011</td>
<td>Radiation And Nuclear Physics</td>
<td>3</td>
</tr>
<tr>
<td>RADI 5005</td>
<td>Fundamentals Of Radiation Dosimetry</td>
<td>3</td>
</tr>
<tr>
<td>RADI 5015</td>
<td>Physics Of Diagnostic Imaging</td>
<td>3</td>
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</table>

Spring

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>RADI 5020</td>
<td>Principles of Health Physics 1</td>
<td>3</td>
</tr>
<tr>
<td>RADI 6012</td>
<td>Phys Nuclear Medi Imaging</td>
<td>3</td>
</tr>
<tr>
<td>RADI 6030</td>
<td>Physics Of Radiotherapy</td>
<td>3</td>
</tr>
<tr>
<td>INTD 6002</td>
<td>Ethics In Research</td>
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Summer

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credit Hours</th>
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</thead>
<tbody>
<tr>
<td>RADI 5007</td>
<td>Statistics in the Radiological Sciences</td>
<td>2</td>
</tr>
<tr>
<td>RADI 6097</td>
<td>Research</td>
<td>1-9</td>
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Second Year

Fall

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>RADI 5025</td>
<td>Molecular Oncology &amp; Radiobiology</td>
<td>1.5-3</td>
</tr>
<tr>
<td>RADI 5090</td>
<td>Sem Radiological Science</td>
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<tr>
<td>RADI 6021</td>
<td>Prin/Health Physics 2</td>
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<tr>
<td>RADI 6071</td>
<td>Supervised Teaching</td>
<td>1-9</td>
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</table>

Spring

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>RADI 6024</td>
<td>Radiological Anatomy &amp; Physiology</td>
<td>3</td>
</tr>
<tr>
<td>RADI 6035</td>
<td>Physics Measurements In Radiotherapy</td>
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</table>

Elective Course - see department

RADI 6097 | Research | 1-9 |

Summer

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credit Hours</th>
</tr>
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<tbody>
<tr>
<td>RADI 6098</td>
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Third Year

Fall

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<tr>
<th>Course</th>
<th>Title</th>
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</thead>
<tbody>
<tr>
<td>RADI 6098</td>
<td>Thesis</td>
<td>1-9</td>
</tr>
</tbody>
</table>

Radiological Sciences Objectives/Program Outcomes

1. Proficiency in Core Biomedical and Medical Health Physics
2. Capacity to Conduct Biomedical Research
3. Critically Review and Interpret Research Literature
4. Demonstrate Competence in Written Communication
5. Demonstrate Competence in Verbal Communication
6. Conduct Research in an Ethical Manner

Translational Science

In line with a field of science that emphasizes multi-disciplinary, collaborative research, the doctoral program in Translational Science is offered as a multi-institutional joint degree program. The four UT System universities partnering in this effort are:

Joint Degree Institutions:

- The University of Texas Health Science Center at San Antonio (UTHSCSA)
- The University of Texas at San Antonio (UTSA)
- The University of Texas at Austin (UT Austin)

Collaborating Institution:

- The University of Texas School of Public Health (UTSPH) Regional Campus in San Antonio

This collaboration of four universities to offer a single joint doctoral degree is unique in the UT System. The program is designed to use the existing resources and expertise in specific key areas of each university to offer a strong, diverse, and competitive Translational Science PhD. The TS PhD will prepare the next generation of scientists to lead the multi-disciplinary biomedical research teams of the future in increasingly complex research environments. These scientists will advance knowledge in the areas of Type 1 (T1) and Type 2 (T2) translational research toward the goal of translating basic biomedical scientific discoveries into strategies that will improve healthcare delivery, patient outcomes, and community health.

Doctor of Philosophy (PhD)

In line with a field of science that emphasizes multi-disciplinary, collaborative research, the doctoral program in Translational Science is offered as a multi-institutional joint degree program. The four UT System universities partnering in this effort are:

Joint Degree Institutions:

- The University of Texas Health Science Center at San Antonio (UTHSCSA)
- The University of Texas at San Antonio (UTSA)
- The University of Texas at Austin (UT Austin)

Collaborating Institution:
The University of Texas School of Public Health (UTSPH) Regional Campus in San Antonio

This collaboration of four universities to offer a single joint doctoral degree is unique in the UT System. The program is designed to use the existing resources and expertise in specific key areas of each university to offer a strong, diverse, and competitive Translational Science PhD. The TS PhD program will prepare the next generation of scientists to lead the multi-disciplinary biomedical research teams of the future in increasingly complex research environments. These scientists will advance knowledge in the areas of Type 1 (T1) and Type 2 (T2) translational research toward the goal of translating basic biomedical scientific discoveries into strategies that will improve healthcare delivery, patient outcomes, and community health.

Translational Science Admission

Requirements

Application Due Date

The TS PhD program accepts applications once a year for fall enrollment only. Applications are due December 1 for program entry in the subsequent fall semester.

Advanced Degree

The TS PhD is a post-Master’s program. Applicants must demonstrate completion of an advanced Professional Degree (e.g., MD, DO, DDS, MSN, PharmD) or a Master’s or Doctoral Degree in a health-related, science, public health or social science discipline from an accredited college or university in the United States or proof of equivalent training at a foreign institution. Faculty on tenure-track are not eligible for acceptance into the TS PhD program.

Documentation of Academic Record

For the purpose of evaluating the application, copies of all transcripts are acceptable for inclusion with the application. If selected for admission, official transcripts will be required from all colleges and universities attended. Transcripts must be sent from the college/university in a sealed envelope directly to the Registrar’s Office at the Home institution. Transcripts from foreign colleges/universities must be officially translated, including GPA, by a credentialing agency approved by the Registrar’s Office of the Home institution. The translated transcript should be sent from the credentialing agency in a sealed envelope directly to the Registrar’s Office at the Home institution.

Demonstration of Ability to Participate in an Advanced Academic Program

Official documentation of a satisfactory score for the combined verbal and quantitative portions of the Graduate Record Examination (GRE), or an equivalent, is required. The GRE score will be considered along with the other admission criteria. Scores on GRE tests taken more than five years prior to the date of application are not acceptable. Applicants may request a waiver for the GRE requirement if they provide evidence that they have earned a doctoral degree (i.e., MD, DO, JD, DVM, PharmD, DDS, PhD, etc.) from a regionally accredited U.S. institution, are currently certified by the Educational Commission for Foreign Medical Graduates (ECFMG), have passed all three steps of the United States Medical Licensing Examination (USMLE), or were previously enrolled in the Graduate School of one of the joint degree institutions.

Demonstration of Proficiency in English – Foreign Nationals Only

Official documentation of a satisfactory score on either the Test of English as a Foreign Language (TOEFL) or the International English Language Testing System (IELTS) is required for applicants from a country where English is not the native language. A minimum TOEFL score of 600 (paper test), or equivalent, or a score of 7.0 on the IELTS, is required. Scores on tests taken more than two years prior to the date of matriculation are not acceptable. TOEFL or IELTS may be waived for those applicants whose post-secondary education was conducted in a country where English is the native language. ECFMG certified physicians will also be granted a waiver. Consistent with Texas Education Code, Section 51.842(b), an applicant’s standardized test scores, when used to make admission or scholarship decisions, will be compared with scores of other applicants from similar socioeconomic backgrounds, to the extent such information is available.

Personal Statement

Applicants must submit a personal statement (1-3 pages) that describes the applicant’s past training and experience, future career goals and objectives, scientific research interest, and how the TS PhD program will prepare them to achieve the stated research interest and career goals. The Personal Statement should include but is not limited to:

• A statement of the applicant’s background and purpose for applying to the TS PhD program,
• Applicant’s interest in and commitment to a translational science career
• Applicant’s potential to develop into a successful scientist, as evidenced by research training/experience, prior publications, etc.
• Research interest and its applicability to the TS PhD program
• Identification of a potential Supervising Professor, if applicable
• Career goals and how the TS PhD program will contribute to their attainment
• The personal statement should be submitted/uploaded with the online application.

Letters of Recommendation

Applicants must provide three (3) letters of recommendation from faculty or other individuals who are familiar with and can provide information about the applicant’s academic, research, and/or professional abilities and performance. In addition, letters of recommendation should provide an assessment of the applicant’s potential to succeed in a doctoral program and develop into an independent research investigator. These letters should be on letterhead and submitted/uploaded with the recommendation form in the online application.

Curriculum Vitae

A current CV should be submitted with the online application.

Copy of U.S. Health Professional License/Certificate

If applicable, a copy should be submitted with the online application.
Translational Science Degree Requirements

A minimum of 72 hours of graduate coursework is required for the translational science doctoral degree candidate. An overall grade point average of 3.0 must be maintained for program continuation and completion. The TS PhD program and track structure is summarized in the following figure:

The plans of study and specific courses to be taken by students will vary, depending on the choice of the TS1 or TS2 translational science track, individual student interest, student background/discipline, and program goals.

All translational science doctoral students will be required to take a minimum of:

1. **24 hours of Core Curriculum:** Core courses will provide essential knowledge, skills, and training in the competencies necessary to conduct translational science research. Where courses are offered with similar content within multiple UT components, students may choose the one course that meets their individualized needs and/or is more convenient for them.

2. **Electives:**
   A. **12 hours of Prescribed Track Electives:** Prescribed track electives will provide additional depth and breadth specific to each student’s track. If more than one course meets the requirements, as with the core courses, students will select the course that most effectively meets their educational needs from a list of recommended courses.
   B. **6 hours of free electives:** Additional elective courses are offered to meet the unique educational needs of individual students to successfully conduct their dissertation research and progress in their career development.

A **Directed Elective**, Topics in Translational Science, is required for at least two of the total elective hours.

3. **30 hours of research/dissertation:** Enrollment in dissertation and thesis courses will begin after the student is admitted to candidacy, selected a Supervising Professor, developed a research proposal, and established a Dissertation Committee.

Translational Science Plan of Study

**First Year**

<table>
<thead>
<tr>
<th>Fall</th>
<th>Credit Hours</th>
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</thead>
<tbody>
<tr>
<td>Translational Science</td>
<td>1</td>
</tr>
<tr>
<td>(Core)</td>
<td></td>
</tr>
<tr>
<td>Responsible Conduct</td>
<td>2</td>
</tr>
<tr>
<td>(Core)</td>
<td></td>
</tr>
<tr>
<td>Research Design-Methods</td>
<td>2</td>
</tr>
<tr>
<td>1</td>
<td></td>
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**Second Year**

<table>
<thead>
<tr>
<th>Fall</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cultural Proficiency</td>
<td>3</td>
</tr>
<tr>
<td>(Core)</td>
<td></td>
</tr>
<tr>
<td>Track and/or Free Electives</td>
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**Third Year**

<table>
<thead>
<tr>
<th>Fall</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Research/ Dissertation</td>
<td>9</td>
</tr>
<tr>
<td>Summer</td>
<td>3</td>
</tr>
<tr>
<td>Track and/or Free Electives</td>
<td>3</td>
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</table>

<table>
<thead>
<tr>
<th>Spring</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Research/ Dissertation</td>
<td>9</td>
</tr>
<tr>
<td>Summer</td>
<td>3</td>
</tr>
</tbody>
</table>
Curriculum Sequence

Prospective students applying to the TS PhD program must have a Master’s or Professional (e.g., MD, DDS, PharmD) degree prior to enrollment in the program. While there is no prescribed sequence of courses for the TS PhD program, some courses are offered only one time per year and some courses require prerequisites, so full-time students and their academic/graduate advisors must develop the individualized education plan accordingly to maintain a three-year schedule to graduation. Although a full-time student could complete the TS PhD program in 3 years, we anticipate that many students require more time (4-5 years) given the real-world challenges of conducting translational research. Because the program design provides for course choices, only the educational domains are identified in this example.

Translational Science Objectives/Program Outcomes

- **A Clear Understanding of Translational Science:** Students will articulate what constitutes T1 and T2 translational science and the inter-relationships between the two broad tracks.

- **Responsible Research Conduct:** Students will be knowledgeable about and be able to apply research ethics and work effectively with regulatory groups within their organization(s).

- **Expertise in Research Design and Analysis in their Scientific Discipline:** Students will formulate research questions and appropriately design experiments and studies to test hypotheses. They will develop specific analytic strategies based on the study design and assure that their studies are adequately powered to test the hypotheses.

- **Ability to Lead, Motivate, and Manage Collaborative Team Science:** Students will work effectively in and be able to lead interdisciplinary research teams to (a) identify health-related problems and (b) design and conduct research to address the problems.

- **Utilization of Multi-level Cultural Proficiency:** Students will be able to identify the different cultures that exist within and among (a) organizations and (b) communities (locally and globally). In recognizing these differences, students will learn to use cultural competence and work effectively to conduct research investigations in different settings.

- **Communicate Effectively:** Since communication is a key domain of translational science, students will demonstrate oral and written competency in their ability to communicate research clearly to other translational scientists via journal articles and scientific presentations. They will be able to effectively write abstracts and manuscripts, give oral presentations, and communicate the relevance of their scientific expertise. Beyond the core requirements, students will receive training in grant writing and be expected to develop grant applications for career development (e.g., NIH F-32 or K-grant series) or independent funding.

- **Display Competence in the Business of Translational Science:** Students will become functionally informed about intellectual property licensing and the processes of developing products, drugs, or devices for human use. They will be able to design and implement research protocols to study improvement in health care processes and outcomes. Students will be able to function within different legal, regulatory, and economic environments.

- **Evidence Based Implementation and Policy:** Students will be able to independently read and interpret the scientific literature in their content area. They will be able to systematically review a body of scientific literature to apply to policy implementation. They will be able to make data-based decisions and inform policy and guideline development.

Registration

Concurrent Registration

Students may register and take courses concurrently at more than one of the universities participating in the joint TS PhD degree program. Registration for courses offered by the UT School of Public Health will require the student to apply and be accepted as a non-degree-seeking (NDS) student.

_**International students**_ are limited to enrollment in no more than two partner universities, including the Home institution, at the same time, and the concurrent enrollment must be equivalent to full-time enrollment (9 semester credit hours). International students are also limited to one distance or online class (up to 3 semester-credit-hours) per semester. Concurrent enrollment for international students must be pre-approved by the Designated School Official (DSO) of both institutions before student registration and the census date of both institutions. The student is responsible for informing and providing documentation of the concurrent enrollment to both institutions. Any subsequent changes to the approved concurrent enrollment status must be approved, in advance, by the DSO of both institutions who gave the initial approval. Maintenance of full-time enrollment status will directly impact a student’s eligibility for employment, scholarship, or other financial awards.

Registration When No Class Is Being Taken

To maintain student status, a student will register each semester at each joint-degree institution. Provisions are available for zero-credit-hour (placeholder) registration if no classes are being taken at an institution during a semester. Placeholder registration will not activate any coursework-specific tuition and fees but the institution may have the option to assess certain extraneous fees, such as parking, ID badge, recreation, etc. attributable to that institution’s management or maintenance of certain services provided for all enrolled students. Every effort will be made to keep fees that duplicate services available through the Home institution to a minimum.

Academic Calendars

Students will comply with the calendar(s) of the institutions in which they are enrolled for the purposes of registration and course schedules. Please refer to the TS PhD website and/or the Graduate School website of the individual universities for specific information about current academic calendars.

Tuition Rates

Rates for in-state and out-of-state student tuition and fees are established by each institution. Please refer to the TS PhD website for links to current rates for Graduate School tuition and fees at the TS PhD universities.

Residency

Each TS PhD student must establish domicile residency status for the purpose of assessing tuition and fees. This status will be determined by the Home institution. Once residency has been established, the residency
designations will be the same for the enrollment in any of the universities that are part of the TS PhD program.

Payment of Tuition and Fees
TS PhD students will enroll each semester at each university offering the course(s) selected by the student, in accordance with the student’s individualized degree plan. Payment of tuition and fees will be made to each university based on the number of semester credit hours selected. Some non-coursework specific fees paid to the Home institution may be waived by the other universities, but other non-coursework-specific fees (ID badge, for example) may be charged each semester to maintain the student’s status and access to university facilities. Assessment of such fees is dependent on individual university policies and may be handled on a case-by-case basis. Tuition and fees are subject to adjustment. Students receiving any form of financial aid that is not automatically or fully distributed by the Home institution to cover the payment of all tuition and fees at the other universities are responsible for the payment of those additional tuition and fees.

Individualized Degree Plan
Prior to the start of the first semester, each student admitted into the TS PhD program will meet with a TS PhD Academic/Graduate Advisor at the Home institution to discuss research and career goals and establish an individual curriculum to meet those goals. The individualized curriculum may be modified as the student’s goals mature, subject to review and approval by the Academic/Graduate Advisor and/or Supervising Professor, as long as all course requirements are met or exceeded.

Comprehensive Qualifying Examination
The qualifying exam is composed of three parts:

1. **Research Proposal:**
   - **Administration of the Research Proposal:** The student will prepare a written research grant proposal that will be the basis for the dissertation research. The Research Proposal will be submitted to the QEC at a time mutually agreed upon by the student and the QEC, but at least two weeks prior to the scheduling of the Oral Exam.
   - **Research Proposal Format:** The Research Proposal will be prepared using the following format:
     - Face Page
     - Abstract
     - Literature Review (up to five pages)
     - Research Plan (up to six pages, including Specific Aims page)
   - Specific Aims (one page)
   - Research Strategy
   - Significance
   - Innovation
   - Approach (including Hypotheses, Rationale, Preliminary Studies, Approach, Methods, and Analyses)
   - Cited Literature (not included in page limitation)
   - **Grading the Research Proposal:** The Research Proposal will be graded by all members of the QEC using the Research Proposal form. If the assessment of the graders is the same, that grade will be reported to the TS COGS Chair. If the graders’ assessments are dissimilar, the graders will request the TS COGS Chair to appoint an additional reviewer, who will
independently grade the Research Proposal. The graders will arrive at a consensus grade and report that grade to the TS COGS Chair.

2. Written Exam on Course Content

- Administering the Written Exam on Course Content: The Written Exam on Course Content will test the student’s background in translational science based on core didactic coursework. Because the TS PhD student may select from multiple courses for most domains, every effort will be made to include questions specific to the course(s) taken by the student. All efforts will be taken to ensure that all students cover similar content in this portion of the qualifying exam. Specific criteria related to the Written Exam on Course Content include:
  - The exam will be a take-home exam, and a two-week time period will be allowed for completion.
  - The exam will include one question per domain in the TS PhD curriculum (eight questions total). The course instructor for the course taken by the student to fulfill the course requirement for each domain will write the question. The QEC will review all questions and clarify prior to administering this portion of the qualifying exam.
  - The response to each question will be limited to 1,000 words. Literature citations are not part of the word count.
  - The responses will be typed and submitted electronically as a PDF file.
  - Students will not be released from lab or class responsibilities while they are completing this portion of the qualifying exam. Students will be responsible for scheduling their workloads appropriately.
  - The Written Exam on Course Content will be scheduled at a time mutually agreed upon by the student and the QEC. Sufficient time will be required to solicit and review the questions, so scheduling should begin as early as possible. Unless agreed upon by the student and the QEC, responses will not be accepted during scheduled holidays or time periods between semesters.

- Grading the Written Exam on Course Content:
  - Graders: Each exam question will be graded by two people – the course instructor who wrote the question and a second person from the TS COGS or graduate faculty who is knowledgeable about the question/domain/topic. The QEC will select the second grader.
  - Grading Scale: The Course Content questions will be graded using the following criteria:
    - Exceptional: Indicates that the answers fully and completely address the questions with no major and very few minor flaws or shortcomings.
    - Satisfactory: Indicates that the answers fully and completely address the questions but contain no more than one substantive flaw or shortcomings or several minor flaws.
    - Marginal: The answers contain numerous flaws and shortcomings; however, on balance the answers address the questions and are more correct than incorrect and more complete than incomplete.
    - Unsatisfactory: The answers are nominally complete, but do not suitably address the questions. For example:
      - Answers to questions are substantively different from the questions asked
      - The answers address the questions, but contain numerous flaws and shortcomings
    - Fail: The answers are substantively incomplete (e.g., unanswered, or only one out of three parts are answered) or are nonsensical.

- Grade Assignment: After each grader has assigned a tentative grade to the question, the graders will meet and discuss their assessments. If the assessment of the two graders is similar, the graders will arrive at a consensus grade for the exam and report that consensus grade to the Chair of the QEC/Supervising Professor. If the graders’ assessments are dissimilar, the graders will request the Chair of the QEC/Supervising Professor to appoint a third reviewer, who will independently grade the question. Following that, the graders will arrive at a consensus grade for the question and report that consensus grade to the Chair of the QEC/Supervising Professor.

- Overall Grade: The graded questions will be reviewed by the Chair of the QEC/Supervising Professor, who will discuss any questions or comments with the graders prior to tabulating the overall grade for the Written Exam on Course Content. The overall grade will be based on performance as follows (see “follow-up” below for additional criteria):

<table>
<thead>
<tr>
<th>Grades on the Course Content Questions</th>
<th>Overall Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grade of Satisfactory (or better) received on each question</td>
<td>Pass</td>
</tr>
<tr>
<td>Grade of Unsatisfactory (or lower) on two of the questions, or a grade of Fail on one question and a grade of Marginal on another question</td>
<td>Fail</td>
</tr>
</tbody>
</table>

3. Oral Exam:

- Administration of the Oral Exam: The oral exam will consist of a presentation of the dissertation proposal (a preliminary explanation of the proposed research project which will be defended at the completion of the dissertation) and should include background, methods, and proposed analyses. The QEC, through questioning, will engage the candidate in a discussion of the proposed research to delineate the strengths and weaknesses of the approach. The oral exam will follow the submission of the written research proposal and will be scheduled at a time mutually agreed upon by the student and the QEC.

- Grading the Oral Exam: The Oral Exam will be graded by all members of the QEC using the Oral Exam form. A consensus grade will be reported to the TS COGS Chair.

4. Follow-up for Students Who Do Not Pass: Any student not meeting the criteria for a passing grade on any component of the QE, or for any question of the Written Exam on Course Content that is rated as Marginal or below, will be subject to additional testing or other remediation on that component/question. The QEC will review the student’s performance and make recommendation(s) as appropriate:

- The student may be required to pursue specific remediation in the areas requiring further study, including taking further coursework, followed by a re-take of exam question(s).
- The student may be allowed to retake the qualifying exam or portions(s) of the exam. Such testing may include, but is not limited to, additional readings, a written paper, an oral exam, or a retaking of the exam component or question. The nature and content of the additional testing will be determined by the faculty member who authored the exam question. A re-take of any exam
component/question will be graded according to the procedure outlined above. The final grade on the comprehensive exam will be assigned after the additional testing.

• The student may be dismissed from the graduate program.

Students who fail the comprehensive qualifying exam on the second attempt will be dismissed from the TS PhD program. Any student wishing to transfer to a Master's program will be responsible for identifying an appropriate program and making application.

Composition of the Dissertation Committee

Within 90 days following the student’s admission to candidacy, the student, with the help of his/her Supervising Professor, will establish a Dissertation Committee. The Dissertation Committee will have at least four members, but may have additional members if required by the Graduate School of the student’s Home institution. All Dissertation Committee members must be approved as Graduate Faculty by the TS COGS for the TS PhD program and must also meet the requirements of the student’s home Graduate School. Dissertation committee membership will include (at a minimum):

1. Supervising Professor (may be from any of the four UT institutions included in this joint program)
2. Graduate Faculty from the TS PhD program from the student’s home department and/or institution
3. Graduate Faculty from the TS PhD program from a second UT component institution participating in the joint degree program
4. A member from an outside institution (is not part of the TS PhD program) who is an expert in the student’s dissertation field

The proposed composition of the Dissertation Committee must be evaluated and approved by the TS COGS, and it is the responsibility of the student and Supervising Professor to present the proposed composition of the Dissertation Committee to the TS COGS for approval. Additional site-specific criteria may be set by the Graduate School of an individual institution, such as approval by a Graduate committee at the Home institution, in addition to approval by the TS COGS.

Requirement for Semi-Annual Student Evaluation

Students who have successfully completed the Qualifying Examination and are proceeding with approved dissertation research will be evaluated by the Supervising Professor and Dissertation Committee at least once every six months throughout the remainder of their enrollment in the TS PhD program. The Semi-Annual Progress Report will be submitted in a prescribed format and include a written report of progress on the student’s research work, including statements of objectives of the research, methods used, major results obtained, conclusions drawn, pre- or reprints of papers submitted for publication, and proposed direction of future work.

Due Dates

The Semi-Annual Student Evaluation must be submitted to the TS COGS by August 31 and February 28 of each year regardless of the date the student was admitted to candidacy.

Procedure

Format

The semi-annual evaluation will include:

• Completion of the TS PhD Semi-Annual Student Evaluation Form, which will be a written report of progress on the student’s research work, including statements of objectives of the research, methods used, major results obtained, conclusions drawn, pre- or reprints of papers submitted for publication, and proposed direction of future work, as well as plans for the future towards completion of the requirements in fulfillment of the TS PhD Program.
• A formal meeting of the student’s Dissertation Committee

Scheduling the Meeting

The Supervising Professor will serve as the meeting Chair and, with the student, is expected to establish the time and place of the meeting.

Student Presentation

The student shall be present during this formal meeting and is expected to provide a brief overview of his/her research and training activities, any problems encountered since the previous meeting, as well as plans for completion of the TS PhD. The semi-annual evaluation will also include consideration of student participation in and satisfactory completion of course work, research, seminars and other program activities.

Evaluation

The Dissertation Committee will evaluate the research progress made by the student and, if satisfactory, endorse both the progress and the direction of future work to be undertaken. The semi-annual evaluation will then be submitted to the Student Advisory Sub-committee of the TS COGS. If progress is unsatisfactory, the Dissertation Committee will discuss the reasons for this decision with the student, and the Supervising Professor and student will develop a plan for remediation. In the case of unsatisfactory progress, the student will present an updated progress report to the Dissertation Committee within three months.

Release of Information

Because this is a joint degree program, it will be essential that the participating universities are able to share and access relevant and academically pertinent data; therefore, each Home institution designates all other institutions participating in the TS PhD program as having a legitimate educational interest in the relevant educational records of the students who participate in the TS PhD program. All participating institutions will maintain confidentiality of the educational records in accordance with the provisions of the Family Educational Rights and Privacy Act (FERPA). Accordingly, the sharing of relevant educational records will not require a student release nor violate a student’s FERPA rights.

Student IDs

Students will obtain a Student ID from each institution at the time of enrollment in the first semester of the program. Thereafter, each institution will activate Student IDs according to individual institutional policy. The student ID card/badge must be carried by all registered students and must be presented to campus police upon request. The card/badge also allows access to certain campus facilities. A fee may be assessed for the processing and creation of the student ID/badge on each campus. Due to the importance of this card/badge and the fact that students in this TS PhD program may have to carry several cards/badges, all students should be
encouraged to personally check the authenticity of all cards/badges with the appropriate institution authority on a regular basis.

Technology and Technology Support

Laptop Computer

The TS PhD program requires that students have an Intel-based laptop computer with the capacity to connect to the Internet via a wireless connection. Some coursework will involve the use of laptop computers that are operational in a wireless mode. Recommended software is Microsoft Office Suite (can be purchased at the UT Health Science Center Bookstore with a student ID). Some courses may also require software specific to completion of the learning objectives of the course.

Laptops with an Apple Mac-based operating system must be able to also perform as a PC-based operating system.

Some universities require that wireless laptops be authenticated before accessing the campus’ wireless computer networks. Please refer to websites or contact the telecommunications/networking departments for each university to determine their requirements prior to the start of classes. Typically, the authentication process can be completed by taking the laptop and your student ID to the correct department, and this authentication process should take about five minutes.

Student Email

TS PhD students will have an email account on each campus. Some institutions designate the email address, and others allow the student to make a choice. Each semester, students are required to provide the TS PhD administrative office with a list of their official email addresses on each campus. Each student will be responsible for checking all student-related email addresses on a regular basis.

Conduct and Discipline

Each Partner institution maintains policies regarding conduct and discipline for students which may implicate faculty and staff as well. The agreed policy for handling these concerns is to follow the policies and practices of the Partner institution where the infraction was committed. If two or more sites are implicated, the most stringent policy, practice or procedure, as determined by the TS COGS, shall apply. In addition, such policies may or may not distinguish between an academic or administrative infraction, and the applicable disciplinary sanctions for either. If no distinction has been determined, or this area is vague or ambiguous, the most stringent policy, practice or procedure among the impacted Partner institutions shall apply. This information will be provided to all TS PhD program students and TS PhD program faculty/staff.

Certificate in Translational Science

In line with a field of science that emphasizes multi-disciplinary, collaborative research, the doctoral program in Translational Science is offered as a multi-institutional joint degree program. The four UT System universities partnering in this effort are:

Joint Degree Institutions:

• The University of Texas Health Science Center at San Antonio (UTHSCSA)

• The University of Texas at San Antonio (UTSA)

• The University of Texas at Austin (UT Austin)

Collaborating Institution:

• The University of Texas School of Public Health (UTSPH) Regional Campus in San Antonio

This collaboration of four universities to offer a single joint doctoral degree is unique in the UT System. The program is designed to use the existing resources and expertise in specific key areas of each university to offer a strong, diverse, and competitive Translational Science PhD. The TS PhD will prepare the next generation of scientists to lead the multi-disciplinary biomedical research teams of the future in increasingly complex research environments. These scientists will advance knowledge in the areas of Type 1 (T1) and Type 2 (T2) translational research toward the goal of translating basic biomedical scientific discoveries into strategies that will improve healthcare delivery, patient outcomes, and community health.

Translational Science Admissions Requirements

The CTS Program has an open application policy and will accept applications for admission at any time.

However, GSBS deadlines (for submission of application and required documentation) for matriculation in a specific academic semester are listed below.

• Fall Semester June 1

• Spring Semester October 1

• Summer Semester March 1

A satisfactory score for the combined verbal and quantitative portions of the Graduate Record Examination (GRE). A minimum of 1,000 for the combined scores on the verbal and quantitative portions of the Aptitude Test is desirable.

Applicants who have completed a graduate degree in a health-related discipline (MD, DDS, RN, DVM, MS, or PhD) will be exempted from the requirement to complete the GRE.

A minimum score of 550 on the Test of English as a Foreign Language (TOEFL) for applicants from countries where English is not the native language.

• Scores on TOEFL tests taken more than two years prior to the date of matriculation are not acceptable.

All transcripts from foreign institutions (including GPA) must be translated and submitted by an approved foreign credentialing evaluation agency.

Letters of recommendation (three) attesting to the applicant’s readiness for graduate level studies in translational science.

If a matriculated graduate student has a Supervising Professor, one letter must be provided by this individual.

A Personal Statement (1-2 pages) that includes a brief description of the applicant’s background, long term research and/or career goals, and an indication of the basis for application into the CTS Program including how this program fits into the applicant’s career objectives.
A current curriculum vitae is required.

Translational Science Degree Requirements

Twelve semester credit hours of didactic coursework are required to obtain the CTS. Satisfactory completion of required and elective coursework is also needed in order to be recommended for awarding of the certificate.

Translational Science Plan of Study

First Year

<table>
<thead>
<tr>
<th>Fall</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>MEDI 5070</td>
<td></td>
</tr>
<tr>
<td>Responsible Conduct Of Patient-Oriented Clinical Research</td>
<td>2</td>
</tr>
<tr>
<td>MEDI 5071</td>
<td></td>
</tr>
<tr>
<td>Patient-Oriented Clinical Research Methods-1</td>
<td>2</td>
</tr>
<tr>
<td>MEDI 5072</td>
<td></td>
</tr>
<tr>
<td>Patient-Oriented Clinical Research Biostatistics-1</td>
<td>2</td>
</tr>
<tr>
<td>MEDI 6001</td>
<td></td>
</tr>
<tr>
<td>Introduction To Translational Science</td>
<td>1</td>
</tr>
</tbody>
</table>

Spring

| MEDI 6101          |              |
| Topics In Translational Science | 1 |
| MEDI Elective coursework | 4 |

Total Credit Hours: 12.0

CTS Elective Courses (may be taken in any semester when offered)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>MEDI 5073</td>
<td>Integrated Molecular Biology With Patient-Oriented Clinical Research</td>
<td>2</td>
</tr>
<tr>
<td>MEDI 5074</td>
<td>Data Management, Quality Control And Regulatory Issues</td>
<td>2</td>
</tr>
<tr>
<td>MEDI 5075</td>
<td>Scientific Communication</td>
<td>2</td>
</tr>
<tr>
<td>MEDI 5077</td>
<td>Translational Science Training (TST) Practicum</td>
<td>1</td>
</tr>
<tr>
<td>MEDI 6060</td>
<td>Patient-Oriented Clinical Research Methods-2</td>
<td>2</td>
</tr>
<tr>
<td>MEDI 6061</td>
<td>Patient-Oriented Clinical Research Biostatistics-2</td>
<td>2</td>
</tr>
<tr>
<td>MEDI 6064</td>
<td>Grantsmanship and Peer Review</td>
<td>1</td>
</tr>
<tr>
<td>MEDI 6065</td>
<td>Health Services Research</td>
<td>2</td>
</tr>
<tr>
<td>MEDI 6066</td>
<td>Instrument Development And Validation</td>
<td>1</td>
</tr>
<tr>
<td>MEDI 6067</td>
<td>Genetics And Genetic Epidemiology</td>
<td>1</td>
</tr>
<tr>
<td>MEDI 6068</td>
<td>Cross-Cultural Adaptation Of Research Instruments</td>
<td>1</td>
</tr>
<tr>
<td>MEDI 6100</td>
<td>Practicum In IACUC Procedures</td>
<td>1</td>
</tr>
<tr>
<td>MEDI 6102</td>
<td>Practicum In IRB Procedures</td>
<td>1</td>
</tr>
<tr>
<td>MEDI 6103</td>
<td>Selected Topics In Advanced Research Ethics</td>
<td>1</td>
</tr>
</tbody>
</table>

Twelve (12) semester credit hours (SCH) are required to obtain the Certificate in Translational Science (CTS). Students must be admitted to the CTS program to be eligible for certification.
School of Health Professions

The School of Health Professions is a dynamic center of learning, service, and research for future allied health professionals who will serve the people of Texas and the nation. The words “allied health” represents the largest group of health care providers in the United States. According to the American Medical Association, there are 80 verifiable allied health disciplines. This diversity creates a large, powerful group of allied health professionals of more than 3 million people who constitute more than 60% of the entire health care workforce. In Texas, there are more than 270,000 allied health professionals.

All educational programs in the School of Health Professions are accredited by their respective accrediting bodies. Information about accreditation status and the accrediting body are presented in each department’s section of this Catalog.

History

When the Board of Regents reorganized all existing biomedical units within The University of Texas System in 1972, The University of Texas Health Science Center at San Antonio (HSC) became one of four such institutions of The University of Texas System, each having a common medical school, a graduate school of biomedical sciences and a school of allied health sciences, in addition to at least one of the following health professional schools: a school of nursing, a school of public health or a dental school.

Before the reorganization, San Antonio had been the site of the Medical School, the Dental School, and the School of Nursing. When the Health Science Center was established by the Board of Regents, the Medical and Dental schools and the newly established Graduate School of Biomedical Sciences and School of Allied Health Sciences (SAHS) became the original components. With the integration of the School of Nursing in 1976, the institution consisted of five schools.

Initially, the Dental School planned to offer the Dental Assisting, Dental Hygiene and Dental Laboratory Technology programs; however, due to administrative and fiscal reasons, the university president transferred those three programs to the School of Allied Health Sciences.

In 1975, The University of Texas at San Antonio (UTSA) independently developed three medical allied health programs: medical technology (now clinical laboratory sciences), occupational therapy and physical therapy. As these programs began to develop at UTSA, it became apparent that a linkage with the Health Science Center was imperative to satisfy accreditation standards for their three new programs. The Health Science Center and UTSA subsequently developed a jointly awarded baccalaureate degree. Administrative responsibility for these three programs was transferred to the School of Allied Health in 1980. In 1985, the Emergency Medical Technology program (Paramedic Training) was added.

In 1991, the SAHS programs earned departmental status and program directors officially became “Department Chairs” in the spring of 1992. That same year, the School of Allied Health Sciences began awarding its own Bachelor of Science degrees in Clinical Laboratory Sciences, Occupational Therapy and Physical Therapy, independent of the UTSA joint degree. The Department of Respiratory Care was established in 1993 to offer a Bachelor’s degree in Respiratory Care. The Master of Physical Therapy degree was offered for the first time in fall 1995, with a master degree in Dental Hygiene offered for the first time in fall 1996, and a master’s program in Clinical Laboratory Sciences offered in fall 1997.

The School of Allied Health Sciences began offering a Bachelor of Science in Physician Assistant Studies in 1992 through a cooperative agreement with the Department of Defense. In 1996, an educational program leading to a Post-Baccalaureate Certificate in Cytogenetics was transferred from The University of Texas Health Science Center at Houston to the School of Allied Health Sciences at UTHSCSA. The Department of Emergency Medical Technology began offering a bachelor of science in emergency health sciences in 2000.

In 2004, the Department of Emergency Medical Technology changed its name to Emergency Health Sciences. In 2008, the School of Allied Health Sciences became known as the School of Health Professions; that same year, the Department of Physical Therapy revised the Master of Science degree program and began offering a Doctor of Physical Therapy degree.

Today the School of Health Professions includes six departments: Clinical Laboratory Sciences, Emergency Health Sciences, Occupational Therapy, Physician Assistant Studies, Physical Therapy and Respiratory Care. Together, these departments offer one doctorate degree, three master’s degrees, four bachelor’s degrees, and seven certificates (including post-baccalaureate certificates).

Mission Statement

In support of the University mission, the School of Health Professions will make lives better by promoting health and wellness through excellence in education, research, patient care and service.

Strategies for achieving this mission are:

Education

The School of Health Professions continues to educate a diverse student body to become excellent health care providers and scientists to fulfill our vision of training outstanding individuals to prepare them to be compassionate leaders, ethical advocates, critical thinkers, and lifelong learners. To continue to attract the best students and trainees and remain competitive with peer institutions, the School of Health Professions promotes an environment of continuous quality improvement to offer innovative, integrated curricula.

Research

The School of Health Professions values high quality scholarship and research that advances the knowledge base for health care and provides students with scholarly tools for life-long learning. We enhance our research and scholarship profile by strengthening the infrastructure and incentives to advance faculty productivity and continue to develop interdisciplinary research priorities that contribute to improved health outcomes.

Health Care

The School of Health Professions is committed to providing its clinical expertise as a service to San Antonio and south Texas as well as to the professional communities in order to support access to high quality health care and health education. We continue to enhance our visibility and reputation within the community as a leader in health professions practice and education through delivery of outstanding health care services through our clinical affiliations.
Community Engagement

The School of Health Professions maintains community engagement in targeted local and south Texas venues and will continue to build networks for interprofessional collaboration and education. Faculty, staff and students continually expand their roles as active participants in their professional organizations in order to enhance the visibility and reputation of the school at the professional level.

Organizational Effectiveness

The School of Health Professions is committed to recruiting and retaining a highly competent, diverse group of employees dedicated to making all lives better through enhanced infrastructure, resources and systems.

Vision

The School of Health Professions will be recognized nationally and internationally for excellence as leaders and scholars in health professions education, our ability to integrate research holistically, and our engagement with the community to improve health and make lives better.

School of Health Professions Policies and Regulations

Academic Advising

Students in Health Professions programs may be assigned a faculty advisor to assist the student’s progress through the program. Advisors assist students in solving problems and/or finding alternatives or options. The advisor provides advice and opinions, facts or information, and clarifies policies for the student. Topics that may be addressed through faculty advising include academic issues, program policies, study problems, time management, and clinical progress, as well as the advisor's referral to other support systems in the university or community. It is the student’s responsibility to meet with the advisor when encountering difficulties. Further information about the department’s policies and practices regarding faculty advisors are provided in each department’s student manual/handbook.

Academic Integrity

Students in the School of Health Professions are expected to be above reproach in all professional and academic activities. Policies on academic dishonesty and integrity will be strictly enforced; students who fail to conform to standards of academic integrity and scholastic honesty are subject to disciplinary actions. Academic dishonesty includes, but is not limited to, cheating on examinations or assignments, plagiarism, falsifying data or results, presenting another person’s work as one’s own without giving proper credit or citation, etc. These forms of academic dishonesty are classified as “disciplinary” issues and are investigated by the Associate Dean for Students. Violations of academic integrity standards may result in severe penalties including suspension or dismissal from the university. To avoid charges of academic dishonesty, consult with the department chair or faculty member about expectations.

Advancement, Probation, and Dismissal

Decisions about advancement, probation, and dismissal may be made on the basis of academic performance and/or professional behaviors. Academic standards for advancement in the certificate or degree program are determined by the faculty of each department. Failure to meet the standards may result in the student’s being placed on probation or dismissed from the program. Continuation in a School of Health Professions program is dependent on maintenance of a minimum cumulative grade point average as set by the department. A student whose cumulative GPA falls below the minimum may be subject to academic probation. All decisions concerning probation or dismissal will be based on recommendations from the faculty or a Student Progress Committee within the department. The faculty or the committee may recommend dismissal, academic probation, repetition of the course when next offered, repetition of the year/semester, or other actions as deemed appropriate. Under no circumstances will a student on probation be awarded a degree.

Students who do not adhere to professional conduct standards may be dismissed from the certificate or degree program. General standards for professional behavior are provided under Professional Conduct. Other standards and policies may be set by the faculty. Professional behavior and ethics standards from professional organizations may also be applied.

Students may be dismissed, suspended, or refused readmission at any time if circumstances of a legal, moral, health, social, or academic nature are considered to justify such action. Additional policies and procedures regarding probation, dismissal, and student appeals may be found in the General Section of the Catalog.

Grades

The standing of students in their work is expressed by the following grades:

A = Excellent  
B = Above Average  
C = Average  
D = Below Average (Note: some departments do not recognize a D grade; see individual departments for information regarding grading structure.)  
F = Failure

Grades for courses in which performance is graded an S (Satisfactory) or U (Unsatisfactory) are not used in computing the grade point average.

The grade point average is calculated using the following grade points:

A = 4 points  
B = 3 points  
C = 2 points  
D = 1 point  
F = 0 points

The grade of I (incomplete) may be recorded for a student who has not completed course assignments at the conclusion of the course. In some programs, students have the option of seeking exemption from certain courses in the curriculum if they have successfully completed an equivalent course in the curriculum at another college or university or content in an examination. The grade of CR (Credit) is recorded for a course(s) for which the student has been exempted.

Grades in Clinical Rotations, Practicums, and Fieldwork Courses

Clinical Rotations, Practicums, and Fieldwork Courses may be graded S (Satisfactory) or U (Unsatisfactory), or may be assigned a letter grade, depending on the Departmental policy. A grade of S or other designation of an acceptable grade is assigned if the student successfully satisfies the criteria for clinical courses. Failure to satisfy the course criteria successfully may result in an I (Incomplete) or a U (Unsatisfactory) or a letter grade considered unsatisfactory based on departmental policy.
Criteria and time frame for removal of an I or U or other unsatisfactory grade in clinical courses are determined based on clinical documentation and consultation with the clinical supervisor/clinical instructor. An unsatisfactory grade may require that the student complete an additional clinical affiliation or other remediation that could extend the professional curriculum beyond the expected graduation date. More than one unsatisfactory grade is not allowed within the total clinical course sequence.

Incompletes

A grade of I (Incomplete) may be assigned when a student has not satisfactorily completed all course requirements by the conclusion of the course. Unless the student has been granted a Leave of Absence, all incomplete work must be completed within one year, at which time the grade will be changed to the appropriate letter grade. When an I is issued pending a grade in a course that is a prerequisite for another course, the I must be removed before the student is allowed to enroll in the next sequential course.

Withdrawal from a Course

From the beginning of the third week to the end of the eleventh week of classes (or first week to the seventh week for summer term), a student may withdraw from a course and receive a grade of W (Withdraw) on her or his transcript. Students who wish to withdraw must meet with their faculty advisor and the course instructor, fill out the course withdrawal form, and obtain necessary signatures.

Between the end of the eleventh week (or the end of the seventh week for summer term) and the last day of class before finals, students who wish to withdraw from a course must petition the course instructor through a written request. The petition must state why the student is unable to continue in the course. Acceptable reasons for withdrawal do not include dissatisfaction with the course instructor or course or with the expected grade or performance. The course instructor will approve or deny the request. If approved, the student will receive a W on her or his transcript. If the request is denied, the course instructor will assign a final grade in accordance with the criteria that is applied to other students in the course.

The course instructor may recommend to the Department Chair that a student be administratively dropped from a course when the course instructor can show that circumstances warrant such action. The Dean must approve this request. If approved, a grade of W will be assigned.

See also the Catalog General Section.

Dean’s Honor List

Students in certificate or bachelor’s degree programs in the School of Health Professions with a grade point average (GPA) of 3.5 or greater for an academic semester or session may qualify for inclusion on the Dean’s Honor List. In addition to the minimum GPA, Dean’s Honor students must complete at least 9 semester credit hours during a regular semester or 5 semester credit hours during a summer session.

Graduation with Honors

Honors designations are awarded to students graduating from the baccalaureate programs based upon the following scale:

- Cumulative GPA 3.5 – 3.69: Cum Laude
- Cumulative GPA 3.7 – 3.89: Magna Cum Laude
- Cumulative GPA 3.9 – 4.00: Summa Cum Laude

Appeal Procedures

The purpose of academic appeals is to provide students with an objective hearing of wide-range issues related to the students’ professional education. The appeal procedures below provide opportunities for students to request a review of recommendations and decisions made by the department faculty, submit information not previously available to the faculty, or suggest alternative remedies. Students in Master of Science degree programs follow appeal processes for the Graduate School of Biomedical Sciences.

These procedures apply to circumstances and events related to the students’ education programs, including academic issues, professional conduct or judgment, or ethical behavior. Policies and procedures for scholastic dishonesty or other non-academic disciplinary matters differ from these procedures and are addressed in procedures and regulations in the General Section of this Catalog. Established school or program policies themselves cannot be appealed.

Appeal of Grades or Evaluations

The procedures below are followed in the School of Health Professions for appeal of academic matters including grades or other evaluations awarded for a course, assignment, project, examination, clinical procedure, clinical rotations, or other program-related performance.

Meeting with the Course Instructor - Before initiating an appeal, the student must contact the course instructor to discuss the academic matter or grade within five business days of the occurrence. “Occurrence” is the notification of a student’s grade or performance evaluation.

Step 1: Appeal to the Department Chair - If the matter is not resolved with the course instructor, the student may appeal in writing to the Department Chair within five business days following the meeting with the course instructor. The written appeal should include:

1. Name of the student
2. Nature of the occurrence
3. Date of the occurrence
4. Name of the course instructor(s) involved
5. Summary of the student’s meeting with the course instructor, including date, time, and outcomes
6. Student’s rationale for the appeal

Step 2: Meet with the Department Chair - Within five business days after submitting the written appeal to the Department Chair, the student is responsible for setting an appointment with the Department Chair to discuss the appeal. This meeting should occur as soon as feasible. The Department Chair’s responsibilities include:

1. Investigating the facts and examining the evidence
2. Meeting with the course instructor(s) and student to clarify areas of dispute
3. Mediating a mutually-acceptable resolution, if possible
4. Documenting in writing actions taken to seek resolution

The Department Chair will notify the student and course instructor in writing of her/his decision within five business days following the final meeting with concerned parties.

Step 3: Appeal to the Dean² - If a mutually acceptable resolution is not achieved, or if the student wishes to appeal the Department Chair’s decision, the student may submit a written request to the Dean to review
the merits of the student’s appeal. The request must be submitted within five business days of the Department Chair’s notice. The Dean will review the student’s appeal and the information and may solicit other information deemed appropriate for resolving the matter. The Dean will inform the student and the Department Chair in writing of the Dean’s decision within five business days following the final meeting with concerned parties. The decision of the Dean will be final and may not be appealed. The President may review the appeal process.

Note: Timeframes in the appeal procedures are recommended intervals and may be modified as a result of weekends, holidays, vacation periods, and other circumstances.

1 “Dean” may refer to the Dean or another person designated by the Dean, e.g., the Associate Dean.

Appeal of Program-Related Penalties

At times, the faculty may judge that it is in the best interest of the student, patients, education program, or public to recommend that penalties be assessed against a student. Such penalties may include probation, suspension, dismissal, repeat of course(s), or other penalties deemed appropriate under the circumstances. Reasons for penalties may include a variety of factors, e.g., poor academic performance, violations of professional standards of conduct, poor professional judgment, failure to demonstrate ethical behavior, etc. The following procedures are followed for appeal of program-related penalties:

Step 1: Initial Decision and Notification - The student will have been identified as performing below expectations in the education program, and the course instructor and/or the departmental Student Progress Committee (SPC) may assess one or more penalties. It is recommended that the student be allowed to provide information related to the matter before the decision is made about penalties. If the proposed penalty is dismissal, the faculty is required to provide the student an opportunity for a personal hearing before the decision is reached. Minutes of the meeting in which the decision was made will summarize the allegations, facts, and rationale for the faculty’s decision.

The Department Chair will notify the student in writing of the faculty and/or the SPC’s decision and the rationale, and inform the student about appeal procedures. Copies of the faculty/SPC meeting minutes and the notification to the student will be sent to the Associate Dean for Student Success. If the student does not appeal the decision, the penalty becomes effective five business days after receipt of the Department Chair’s notification. If the decision is dismissal, the student should complete the clearance process for the university unless he or she decides to appeal the decision. Completion of the clearance process is an indication that the student is waiving his or her right to appeal.

Step 2: Appeal to the Dean

The student may appeal the faculty/SPC’s decision by submitting a written request to the Dean within five business days of receipt of the Department Chair’s notification. The written appeal should include:

1. Date
2. Student’s name
3. Specific reasons that the penalty assessed is deemed inappropriate, e.g., Extenuating circumstances affecting the student’s performance or behavior that the faculty/SPC was unaware of at the time of the decision, misapplication of department policy or procedure, etc.
4. Any documentation relative to the points of the appeal

Note: Any documentation provided by the student after submission of the initial appeal is subject to review by the hearing officer. The hearing officer may disallow such documentation at the appeal hearing if he or she deems the documentation to be unrelated to the initial points of the appeal letter.

Step 3: Hearing Before the Student Appeal/Grievance Committee - Students in the School of Health Professions are afforded the opportunity to appeal program-related penalties to the Student Appeal/Grievance Committee (SAGC). The SAGC is appointed annually by the Dean and consists of at least one faculty representative from each department.

The Dean will convene the Student Appeal/Grievance Committee (SAGC) to hear the student’s appeal. The SAGC may seek further information; conduct additional investigation; and may approve, reject, or modify the faculty/SPC’s decision. (See “Review by the Student Appeal/Grievance Committee”, below.) The Dean will notify the student and Department Chair in writing of the decision of the Student Appeal/Grievance Committee within five business days of the decision. The decision by the SAGC will be final and may not be appealed. The Dean and/or the President may review the appeal process.

Hearing Officer and Hearing Panel — When the Dean receives an appeal from a student, the Dean convenes the SAGC and appoints a Hearing Officer from the committee. The Hearing Officer is the spokesperson for the SAGC and is responsible for:

- Selecting a hearing panel of at least three SAGC members to hear the appeal on behalf of the SAGC.
- Informing the student, hearing panel, Dean, and other interested parties of the date and location of the appeal hearing at least ten business days before the hearing. The student can request that the appeal hearing be scheduled with less than 10 business days’ notice.
- Reviewing, in advance of the appeal hearing, any documentation submitted by the student relative to the appeal. The hearing officer may request written documentation from other parties as deemed appropriate.
- Conducting the hearing in a fair, unbiased manner.
- Recording the testimony at the hearing in audio or video format. The hearing panel’s deliberation following testimony is not recorded.
- Providing the Dean with a written summary of the hearing and the hearing panel’s decisions.
- Providing a file of all evidence accumulated in the appeal process and all materials related to the appeal to the Dean following the final disposition of the appeal.

Appeal Hearing Participants - The appeal hearing provides for an objective hearing of all facts related to the appeal and should include not only the student, but also a spokesperson for the faculty. The hearing is “closed” and confidential. Only individuals personally involved in the hearing are permitted to attend and participate, including hearing panel members, the student, faculty representative, witnesses, and counsel, if desired. A representative of the Dean’s Office may be available to advise on procedural and policy matters.

Witnesses - If called, witnesses give only their testimony; witnesses may not be present in the hearing before or after their testimony is given. If the student wishes to call witnesses, the student must inform the Hearing Officer of the names of the witnesses and a brief written summary of their relevant testimony at least five business days before the hearing. Likewise, if the faculty representative wishes to call witnesses, the faculty representative must inform the Hearing Officer of witnesses’ names and
a brief written summary of their relevant testimony at least five business days before the hearing. The Hearing Officer must inform each party of the witnesses that the other party plans to call at least three days before the hearing.

**Procedures during the Hearing**

- The Hearing Officer reviews the purposes of the hearing and procedures to be followed, and clarifies the data-gathering and decision-making functions of the hearing panel. The Hearing Officer reads the student’s appeal submitted to the Dean. Only the concerns of the student presented in the written appeal are discussed during the hearing.
- The student presents the issues and rationale for the appeal. The hearing panel may question the student. The student and faculty representative may question each other, at the discretion of the Hearing Officer.
- The Hearing Officer will call witnesses as desired by the student and the faculty representative, and the hearing panel may question the witnesses. The student and the faculty representative may question the witnesses at the discretion of the Hearing Officer. At all times, it is the prerogative of the Hearing Officer to carefully and discretely monitor and control the extent and degree of questioning and terminate it as her/his judgment dictates.
- Counsel of choice, if requested by the student, may be present to advise and support the student. The student must inform the hearing officer of the name of the counsel of choice, if one is desired, at least five business days prior to the hearing. The hearing is not intended to be adversarial in the sense of a court trial and, therefore, witnesses are not “cross examined” as in a legal context. Counsel of choice may only confer with the student and is not allowed to question witnesses or otherwise engage in discussion with the hearing officer, hearing panel or other participants in the hearing.
- When all testimony has been provided, all individuals except the Hearing Officer and hearing panel leave the hearing room. The hearing panel discusses the matters and may request additional information as deemed appropriate and necessary. Although it is desirable to conclude appeals expeditiously, the hearing panel may use as much time as necessary to assess thoroughly and evaluate the situation. Following careful review of all information, the hearing panel makes a decision about the student’s appeal.
- The Hearing Officer notifies the Dean of the hearing panel’s decision within five business days of its final meeting on the appeal.
- The Dean notifies the student and the Department Chair in writing of the hearing panel’s decision within two business days of the decision.

**School of Health Professions Application and Admission**

Application and admission requirements vary by department and program; please see the respective department section in this Catalog for specific information. Applicants are advised to pay close attention to application deadlines, as they also vary by department and program. An application packet is not considered complete until all required documents have been received.

Admission to all programs within the School of Health Professions is on a competitive basis. A limited number of students are admitted each year. Applicants should be aware that the selection process usually involves choosing among highly qualified applicants rather than between qualified and unqualified applicants.

Applicants may submit transcripts for an unofficial evaluation of prerequisite coursework to the School of Health Professions Office of Advising, Admissions, and Recruitment Support. Additional information about application and admission is available by calling (866) 802-6220 (toll-free) or (210) 567-8744.

Upon admission to any program within the School of Health Professions, these additional items are required:

**Background Check**

Acceptance is contingent upon completing and passing a background check. An offer of admission will not be final until the criminal background check is completed with results deemed satisfactory. Students must pay costs for the criminal background check. Directions for the background check process will be included in the offer of admission letter. Students should be aware that a felony conviction may prohibit them from becoming licensed in many of the health professions programs. Concerned students should check with the respective department for further clarification.

**Health Insurance Coverage**

Accepted students must show evidence of current health insurance, including dates of coverage. Unless proof of proper insurance coverage is provided before the first day of classes, students will be charged for a policy provided by the University. The healthcare fee is non-removable once the payment due date passes, and non-refundable once paid.

**Immunizations**

All required immunizations (e.g. TB skin test, tetanus, MMR, Varicella, Hepatitis B) must be completed prior to registration to protect your health, the health of patients, and to minimize any adverse reactions during the early part of your training. Be aware that it may take some time to obtain the immunizations and the information/signature from your health care provider. Specific immunization information can be obtained through the Student Health Clinic.

Immunization Records must be returned to the Student Health Center at least 30 days prior to Registration. If you are accepted less than 30 days before Registration, please hand-deliver your Immunization Record to the Student Health Center as soon as possible. If accepted more than 30 days before Registration, drop off or mail your completed form to:

UT Health Science Center
Student Health Center - MSC 7934
7703 Floyd Curl Drive
San Antonio, Texas 78229-3900

**Matriculation Fee**

Payment of the $100 matriculation fee is required to reserve a space in the class; $50 will be refunded towards tuition upon enrollment. Failure to enroll will result in forfeiture of the entire fee.

**Texas Core Curriculum**

If a student first enrolled as an undergraduate at a Texas public university or college in fall 1999 or more recently, their degree requirements include a General Education Core Curriculum. Every public institution in Texas has a Core Curriculum, which is designed to provide a solid foundation for a college education and to make transfers between and among Texas institutions of higher education as smooth and seamless as possible.

Each undergraduate institution’s Core Curriculum applies to all academic undergraduate degrees. They range from 42 to 48 credit hours, depending
on the college or university. Students may choose a major which has some more rigorous or more specific requirements than the Core. Most science majors have more intensive math and science requirements. In these cases, the major requirements have priority. For those and other reasons, no one should enroll in courses, Core Curriculum or otherwise, without consulting with a trained academic advisor or counselor at the appropriate institution.

Students receiving their first baccalaureate degree from the UT Health Science Center at San Antonio must successfully complete the Texas Core Curriculum requirements prior to matriculation. Core Curriculum and the additional math and science courses for the bachelor's degree may be taken at any regionally accredited community college or university. In addition to the Core Curriculum, students may be required to complete additional courses; see the specific department for prerequisites and additional admission requirements.

International Applicants
International applicants who have completed all or part of their college-level education at schools outside the United States must:

- Have foreign transcripts evaluated by an approved Foreign Credentialing Agency. Acceptable agencies include current members of National Associate of Credential Evaluation Services (http://www.naces.org) (NACES). These evaluations should be provided to the Office of the Registrar (http://students.uthscsa.edu/registrar).
- Submit scores on the Test of English as a Foreign Language (TOEFL). Required minimum scores on the TOEFL are 560 (paper test) or 68 (Internet). Official copies of TOEFL scores must be submitted to the Office of the Registrar (http://students.uthscsa.edu/registrar).

Non-Degree Student Status
An individual who wishes to enroll in courses offered by the School of Health Professions without entering a certificate or degree program must apply for admission as a non-degree student. In general, a non-degree seeking student will have an academic background similar to those ordinarily admitted to Health Professions programs; course prerequisites and minimum grade point averages (GPA) are generally consistent with the published admissions criteria for each program. Permission to enroll as a non-degree seeking student may be granted by the Dean, Associate Dean, or Department Chair and will be enrolled only if space is available.

Students seeking non-degree status must:

- receive approval for registration each semester by the Dean, Associate Dean, or Department Chair and the instructor of each course
- maintain a minimum grade point average consistent with the department’s established policies for regular students; and
- enroll for no more than 9 semester credit hours during fall or spring semesters or 6 hours during the summer session.

Course grading policies and standards for non-degree status students are the same as those for regular students. All grades received as a non-degree status student will be included on the student’s transcript and used for computing the cumulative GPA if the student is subsequently admitted to a certificate or degree program. Under special circumstances, such as the computation of the GPA to determine academic probation, the Dean or Associate Dean may grant exceptions to this policy.

Transfer by Advanced Standing
Students who wish to transfer from another health professions program to an equivalent program at the School of Health Professions (example: DPT to DPT, MPAS to MPAS) may be considered on a space-available basis; placement is for highly qualified students from other institutions who have a definite need for location in this institution. Student must be in good standing and eligible for re-admission at their current/former school of health professions and have well-founded personal reasons for wishing to transfer. Not all departments accept advanced standing transfer students, so please check with the department prior to applying. Note that space must be available in the program for the transfer.

Students desiring to transfer must also:

- have completed the same prerequisites required by the program;
- meet the program GPA requirements;
- have a letter of reference from the former program director stating good standing and eligibility to continue or return to the program;
- have a clear criminal background check;
- have required immunizations; and
- meet all university requirements for entering and continuing students.

Students who are ineligible for Transfer by Advanced Standing:

- have been dismissed from their health professions program;
- are not meeting normal curriculum progress at their current institution;
- are from a related profession such as medicine or have completed an equivalent degree in the U.S or foreign institution are not eligible for admission in advanced standing but may apply as first-year medical students.

Due to the varying requirements of each program and limited space, interested students must contact the specific program Chair for additional requirements, application requirements, deadlines and approval. The Chair may admit a student on a non-degree basis. If admitted, the student must adhere to the policies and procedures published by the Program and institution Catalog.

Additional information about application and admission is available from the School of Health Professions Office of Advising, Admission and Recruitment Support or by calling (866) 802-6220 (toll-free) or (210) 567-8744.

Attendance
Because of the nature and complexity of the health professions programs, students are expected to attend every class, laboratory, conference, demonstration, meeting, clinical assignment, etc., included as a component of the curriculum. The once-a-year offering of most courses and step-by-step format of the curriculum allow minimal or no opportunity for make-up sessions. Attendance requirements for classes, laboratories, and clinic periods are the option and prerogative of the course instructor. The policy regarding attendance is outlined in each course syllabus and may be found in the department’s student manual/handbook, and the policies are announced by the course instructor at the first class meeting.

Excused absences may be granted by the course director, program director, or department chair in cases of illness or personal emergency (e.g., extended hospitalization, death in the family). Excused absences are considered on an individual basis and verification of the reason for the absence may be required. Unexcused absences may be considered sufficient cause for failure. Prolonged absences for any reason may not be
remediable. The faculty is not required to provide make-up or additional sessions for classes missed by students, regardless of the reason for the absence. Students are responsible for all material presented when they are absent and are responsible for arranging with the course director to make up missed work, if allowed.

Attendance is a professional attribute that the faculty expects every student to demonstrate. Repeated or multiple absences, unexcused absences, and tardiness will be considered unprofessional conduct and may result in faculty review and penalties, including dismissal from the program. Course grading requirements may include participation and any absence is considered non-participation. The ability of the graduating health professions student is totally dependent on the sum of her/his experiences during the educational and training period.

Leave of Absence

Under unusual circumstances, such as prolonged illness or injury, a student may request a leave of absence from a certificate or degree program. The request must be made in writing to the Department Chair. On recommendation from the department’s faculty or Student Progress Committee, the Department Chair may grant a leave of absence for a period not to exceed one year. If a student is granted a leave of absence before the end of the academic term, a grade of I (Incomplete) may be recorded for each course that has not been completed. The student will be required to complete these courses under conditions prescribed by the faculty or the SPC. Specific procedures for requesting a leave of absence may be established by each department within the above guidelines.

Withdrawal from a Certificate or Degree Program

Permission for withdrawal from a certificate or degree program in the School of Health Professions may be granted by the Dean or Associate Dean with the concurrence of the faculty. The student who wishes to withdraw must complete the Student Clearance Form (see withdrawal procedures (http://students.uthscsa.edu/registrar) on the Student Services Web site), submit the form for the required signatures, and obtain authorized signature clearance from each area listed on the lower portion of the form.

Before leaving the program, the student should arrange for an exit interview with the Associate Dean for Students. An additional exit interview is also required for students who are receiving financial aid.

In the case of withdrawal before the end of the academic semester or session, a grade of W will be recorded for each course not completed. In the case of withdrawal at the end of the academic semester or session, the appropriate grade will be recorded for each completed course.

Readmission

An application for readmission by a student who has previously withdrawn from a certificate or degree program is subject to the same requirements, procedures, and acceptance considerations that apply to first-time applicants. Although the university is under no obligation to readmit any student who has withdrawn or has been dismissed, a student may seek readmission for further study by petitioning the faculty. Whether readmission will be considered at the entry level or an advanced level will be determined on an individual basis.

College Level Examination Program (CLEP)

Course credit for specified general education and elective prerequisites may be accepted without a letter grade in the School of Health Professions certificate and degree programs if a student earns a satisfactory score on College Level Examination Program (CLEP) examinations.

Conditions and Limitations

• Applicants and students are responsible for requesting that official CLEP scores be sent by The College Board to the Office of the Registrar.
• CLEP credit awarded by another institution is acceptable if scores are consistent with the minimum scores. Notation of CLEP credit on an official transcript from the institution is sufficient documentation.
• CLEP credit cannot be used to establish credit for prerequisite courses for which a grade of F had been recorded.
• CLEP credit will not be recognized for prerequisite courses in which the student received college credit for the same course or its equivalent.
• Credit for CLEP exams used to satisfy requirements for entry into a program will not be listed on the transcript.

More information can be found in this Catalog under the Policy on Awarding Academic Credit, Transfers and Substitutions.

Credit By Examination

Students in some Health Professions certificate or degree programs may attempt to earn credit by examination for designated courses. Credit by examination will not be given for credit-bearing courses that the student previously passed or failed at the Health Science Center or any other college or university.

Academic credit is awarded only to officially enrolled students or former students. With the approval of the Dean, additional eligibility requirements may be established by each department. Information about additional requirements is available from the department office or the Office of the Registrar.

Credit by examination satisfies degree requirements in the same way as credit earned by passing a course. Credit earned by examination does not jeopardize eligibility for scholarships that require a certain class standing (e.g. junior class).

A student may be eligible for credit by examination by passing the examination according to criteria set by the department that administers it. Credit by examination is reported to the Office of the Registrar by the department upon the student’s successful completion of the examination. At the department’s request, the Office of the Registrar will post the credit earned by examination on the student’s official transcript. Credits earned by examination are not included in the calculation of the student’s grade point average.

All tests administered for credit by examination require the payment of a fee, determined by the department. Fees must be paid before the test is administered. Fees vary, depending on the nature of the test, time required for administration, and other factors.

More information can be found in this Catalog under the Policy on Awarding Academic Credit, Transfers and Substitutions.
Defense Activity for Non-Traditional Education Support (DANTES)

Course credit for specified core curriculum requirements and program prerequisites may be accepted without a letter grade in the School of Health Professions professional certificate and degree programs if a student earns a satisfactory score on Defense Activity for Non-Traditional Education Support (DANTES) examinations.

Conditions and Limitations

- Applicants and students are responsible for requesting that official DANTES scores be sent by DANTES to the Office of the Registrar.
- DANTES credit awarded by another institution is acceptable if scores are consistent with the minimum scores. Notation of DANTES credit on an official transcript from the institution is sufficient documentation.
- DANTES credit cannot be used to establish credit for core curriculum or program prerequisite courses for which a grade of F had been recorded.
- DANTES credit will not be recognized for core curriculum or program prerequisite courses in which the student received college credit for the same course or its equivalent.

More information can be found in this Catalog under the Policy on Awarding Academic Credit, Transfers and Substitutions.

Essential Functions

Many departments in the School of Health Professions have adopted statements of "essential functions" or "core performance standards" that stipulate the function level of capability required to perform competently in the education program and/or as a professional after graduation.

Individuals with disabilities are encouraged to apply to the School of Health Professions programs. It is the responsibility of the student to submit a Request for Accommodation under the American's with Disabilities Act (ADA) form ADA-100 to the Executive Director, Academic, Faculty, Student Ombudsperson and the ADA Compliance Office. Reasonable accommodations will be decided by the department in concurrence with the Executive Director, Academic, Faculty, Student Ombudsperson and the ADA Compliance Office. For further information, see the University Handbook of Operating Procedures 4.2.3 Request for Accommodations under the ADA and the ADA Amendments Act of 2008 or contact the School of Health Professions Associate Dean for Students.

Professional Conduct

Professionalism relates to the intellectual, ethical, behavioral, and attitudinal attributes necessary to perform as a health care provider. The student is expected to:

- Achieve the highest degree of honesty and integrity by communicating and behaving in an honest, ethical manner.
- Accept responsibility for own work and results; demonstrate willingness to accept suggestions or improvement.
- Maintain physical, mental, and emotional composure in all situations.
- Abide by the regulations and policies of the program and clinical training sites.
- Practice personal grooming and hygiene.
- Practice appropriate safety and aseptic techniques.
- Provide the patient with relevant information to enable the patient to participate in making decisions regarding her/his condition, prognosis, and treatment options.
- Refuse to participate in or conceal any unlawful, incompetent, or unethical practice.

Professional Attire

Students in the School of Health Professions programs must dress at all times in a manner consistent with a professional image while on campus and at practicum sites. Appropriate attire for clinical rotations, practicums, or other clinical/educational settings will vary, depending upon department requirements, facility environments, local customs and expectations. It is the student's responsibility to inquire about dress expectations and to comply with them.

Professional Demeanor

Health Professions students are regarded as professional persons and are expected to conduct themselves in a professional manner. Professionalism relates to the intellectual, ethical, and behavioral attributes necessary to perform as a health care provider. Students are expected to perform at a professional level when interacting with student peers, patients, faculty, and staff, and when representing the institution at clinical sites and community activities. A breach of professional conduct may be considered grounds for disciplinary action or dismissal from the program.

Additional guides for professional conduct may be issued by Health Professions departments and/or professional organizations. Students are responsible for knowing and adhering to these.

Scholarships

A variety of scholarships are available to students in the School of Health Professions. Some are available to all students in the school and others are available only to students in the respective department. A scholarship application and supporting documentation are required on an annual basis. Information is usually sent out in the spring for scholarships to be awarded for the upcoming academic year. For more information, consult with the Associate Dean for Students.

Tuition and Fees

Tuition and fees in the School of Health Professions vary by department and program; please see the department web site for specific program costs. In addition to tuition, there are required fees for all students. There are also additional program-specific fees that vary by department and course. There is no on-campus housing at the HSC and program expenses do not reflect day-to-day living expenses. Travel and living expenses for local and out-of-town clinical experiences are not included in program costs. For more information on tuition and fees, contact the Office of the Bursar (http://www.uthscsa.edu/business/bursar).
School of Health Professions Departments

For the School of Health Professions, allied health professionals are defined as those who are involved in the identification, evaluation, treatment, and prevention of diseases, injuries, and other health-related conditions, while educating the public on prevention, wellness, and self-management for healthful lifestyles.

At the School of Health Professions, educational programs are provided in the following disciplines:

**Clinical Laboratory Sciences (CLS)**
- Bachelor of Science in Clinical Laboratory Sciences
- Post-Baccalaureate Certificate in Clinical Laboratory Sciences (generalist and categorical)
- Post-Baccalaureate Certificate in Cytogenetics
- Master of Science in Clinical Laboratory Sciences – Toxicology

**Emergency Health Sciences (EHS)**
- EMT- Basic certificate
- Advanced Practice/Community Paramedic Certificate
- Bachelor of Science in Emergency Health Sciences

**Occupational Therapy (MOT)**
- Master of Science in Occupational Therapy

**Physical Therapy (DPT)**
- Doctorate in Physical Therapy
- Transitional Doctorate in Physical Therapy

**Physician Assistant Studies (PAS)**
- Master of Physician Assistant Studies

**Respiratory Care (RC)**
- Bachelor of Science in Respiratory Care
- Bachelor of Science Degree Completion Program

**Clinical Laboratory Sciences**

Clinical laboratory scientists are laboratory practitioners who analyze blood, urine, tissue, or other body specimens to provide critical, objective data for disease diagnosis, treatment planning, and preventative health care. Cytogenetic technologists study the morphology and behavior of chromosomes and assist the physician in correlating chromosome anomalies to the individual’s medical condition, especially in the areas of inherited disorders and cancer, so that an accurate diagnosis, treatment and management decisions and counseling can occur.

The Department of Clinical Laboratory Sciences (CLS) programs include:

- Bachelor of Science in Clinical Laboratory Sciences
- Post-Baccalaureate Certificates in CLS with specializations in Clinical Chemistry, Generalist, Hematology, Immunohematology, and Microbiology
- Post-Baccalaureate Certificates in Cytogenetics
- Master of Science in Toxicology

Clinical laboratory technicians (CLT)/Medical Laboratory Technicians (MLT) who have completed a CLT/MLT program accredited by NAACLS, have earned an associate’s degree, and who are certified as a CLT or MLT by the Board of Certification (BOC) of the American Society for Clinical Pathology (ASCP) can be accepted into the Bachelor of Science degree program at the Health Science Center. Core curriculum and all required courses must be completed before advancing to the senior year. Some coursework may be offered via distance learning.

The CLS programs are accredited by The National Accrediting Agency for Clinical Laboratory Sciences (NAACLS), 5600 N. River Road, Suite 720, Rosemont, IL 60018-5119; (773) 714-8880; e-mail info@naacls.org. Web site: http://www.naacls.org. Graduates of the CLS programs and Cytogenetics program are eligible to take the national certification examinations given by the Board of Certification (BOC) of the American Society for Clinical Pathology (ASCP), 33 West Monroe St., Suite 1600, Chicago, IL, 60603, 1-800-267-2727.

Graduates of the CLS programs may find employment opportunities in hospital laboratories as well as private, reference, research, industrial, biotechnology, veterinary, public health, and pharmaceutical laboratories. With advanced education and experience, graduates have additional career options, including research, teaching, and management. Graduates of the Master’s program are employed in toxicology laboratories in medical examiners offices and in drug enforcement administration.

Clinical Laboratory Sciences Admissions Requirements

The application deadline for fall entry (July) into the CLS programs is March 1. All application materials, the application fee, official transcripts, and all supporting documents must be received by the Office of the Registrar by the deadline. Applicants who are enrolled in college courses at the time of application should submit an official transcript showing courses in progress. An official, updated transcript must be submitted upon completion of the courses.

**Post-Baccalaureate Certificate in CLS applicants must complete a bachelor’s degree in biology, chemistry, or other closely related field that includes all math and science requirements listed below.**

**Bachelor of Science in CLS applicants only must complete the Texas Core Curriculum (42 hours) with a grade of C or better in each course:**

- English Composition I & II, 6 hours
- Precalculus, 3 hours
- General Chemistry I with lab, 4 hours
- Biology I with lab, 4 hours
- Microbiology with lab (for science majors), 4 hours
- Any philosophy, language, humanities, or English course, 3 hours
- Any arts, drama, or music course, 3 hours
- History 1301 & 1302, 6 hours
- Government 2301 & 2302 or 2305 & 2306, 6 hours
- Any psychology or sociology course, 3 hours

All applicants must complete the program prerequisites (20 hours) and requirements below (note: no grade of less than a C will be accepted; all science courses must be designated for science majors):

- Biology II, 3.0 hours
- General Chemistry II with lab, 4 hours
- Organic Chemistry I with lab, 4 hours
Clinical Laboratory Sciences Degree Requirements

Bachelor of Science in Clinical Laboratory Sciences

The Bachelor of Science in Clinical Laboratory Sciences degree program is a four-year program that consists of a minimum of 126 semester credit hours. Core curriculum, math, and basic science, courses should be completed prior to the acceptance into the program. The third and fourth year of the program is comprised of clinical laboratory science courses and clinical practicums that are completed at the Health Science Center. The courses listed below constitute the professional curriculum for the Bachelor of Science degree in Clinical Laboratory Science. Individualized degree plans are created for each student admitted to the program in consultation with the program director.

Post-Baccalaureate Certificates in Clinical Laboratory Sciences

The post-baccalaureate certificate programs are designed for students who hold a bachelor’s degree from a regionally or nationally accredited college or university and have met all science and math program requirements. Certificates are available in clinical laboratory science (generalist), clinical chemistry, hematology, immunohematology and microbiology.

The curriculum includes professional clinical laboratory sciences coursework completed at the Health Science Center. Science requirements not completed as part of the bachelor’s degree program may be taken as part of the certificate curriculum. Science requirements not completed as part of the bachelor’s degree program may be taken as part of the certificate curriculum. The curriculum requires approximately 24 months. Individuals holding a current certification in a clinical laboratory science discipline and seeking to obtain additional certification may petition for an exemption from didactic courses taken within the last seven years and for which they can demonstrate content equivalency. Students may enroll in one or more categorical certificate programs. Curricula for these programs may be completed in 24 months.

Degree- and certificate-seeking students must complete all courses listed as required core curriculum, program requirements, and professional courses in order to graduate. The minimum grade point average required for graduation from the Bachelor of Science and certificate programs is 2.0.

Clinical Laboratory Sciences Sample Plans of Study

Bachelor of Science in CLS Professional Curriculum

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CLSC 3000</td>
<td>Introduction to Clinical Laboratory Sciences</td>
<td>2</td>
</tr>
<tr>
<td>CLSC 3001</td>
<td>Phlebotomy Practicum</td>
<td>0.5</td>
</tr>
<tr>
<td>CLSC 3010</td>
<td>Body Fluids</td>
<td>2</td>
</tr>
<tr>
<td>CLSC 3011</td>
<td>Quality Assurance in the Clinical Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>CLSC 3033</td>
<td>Medical Microbiology</td>
<td>3</td>
</tr>
<tr>
<td>CLSC 3034</td>
<td>Medical Microbiology Lab</td>
<td>2</td>
</tr>
<tr>
<td>CLSC 3051</td>
<td>Hematology</td>
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</tr>
<tr>
<td>CLSC 3052</td>
<td>Hematology Laboratory</td>
<td>2</td>
</tr>
<tr>
<td>CLSC 3060</td>
<td>Immunohematology</td>
<td>2</td>
</tr>
<tr>
<td>CLSC 3064</td>
<td>Immunohematology Laboratory</td>
<td>2</td>
</tr>
<tr>
<td>CLSC 3065</td>
<td>Clinical Immunology</td>
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<td>CLSC 3071</td>
<td>Diagnostic Immunology Laboratory</td>
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<td>CLSC 3081</td>
<td>Clinical Chemistry</td>
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<tr>
<td>CLSC 3082</td>
<td>Clinical Chemistry Laboratory</td>
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</tr>
<tr>
<td>CLSC 3085</td>
<td>Principles of Biochemistry</td>
<td>3</td>
</tr>
<tr>
<td>CLSC 4006</td>
<td>Professional Issues</td>
<td>1</td>
</tr>
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<td>CLSC 4033</td>
<td>Advanced Medical Microbiology</td>
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<td>CLSC 4037</td>
<td>Microbiology Practicum</td>
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<tr>
<td>CLSC 3040</td>
<td>Special Topics in Microbiology</td>
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<tr>
<td>CLSC 4053</td>
<td>Advanced Hematology</td>
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<tr>
<td>CLSC 4055</td>
<td>Advanced Immunohematology</td>
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<td>CLSC 4057</td>
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<td>CLSC 4067</td>
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<td>CLSC 4070</td>
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<td>CLSC 4083</td>
<td>Advanced Clinical Chemistry</td>
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<tr>
<td>CLSC 4087</td>
<td>Chemistry Practicum</td>
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<tr>
<td>CLSC 4095</td>
<td>Management</td>
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</tr>
<tr>
<td>CLSC 4190</td>
<td>Research</td>
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Total Credit Hours: 64

Professional Curriculum for all Post-Baccalaureate Certificates

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CLSC 3000</td>
<td>Introduction to Clinical Laboratory Sciences</td>
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<td>CLSC 3001</td>
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<tr>
<td>CLSC 3011</td>
<td>Quality Assurance in the Clinical Laboratory</td>
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</tbody>
</table>
CLSC 3065  Clinical Immunology 3
CLSC 3085  Principles of Biochemistry 3
CLSC 4006  Professional Issues 1
CLSC 4095  Management 2.5
CLSC 4190  Research 1
Total Credit Hours 14

Additional Curriculum for CLS Post-Baccalaureate Certificate (Generalist)

CLSC 3040  Special Topics in Microbiology 2.5
CLSC 3010  Body Fluids 2
CLSC 3033  Medical Microbiology 3
CLSC 3034  Medical Microbiology Lab 2
CLSC 3051  Hematology 3
CLSC 3052  Hematology Laboratory 2
CLSC 3060  Immunohematology 2
CLSC 3064  Immunohematology Laboratory 2
CLSC 3071  Diagnostic Immunology Laboratory 0.5
CLSC 3081  Clinical Chemistry 2.5
CLSC 3082  Clinical Chemistry Laboratory 1.5
CLSC 4033  Advanced Medical Microbiology 2
CLSC 4037  Microbiology Practicum 4
CLSC 4053  Advanced Hematology 2
CLSC 4055  Advanced Immunohematology 2
CLSC 4057  Hematology Practicum 4
CLSC 4067  Immunohematology Practicum 4
CLSC 4070  Immunology Practicum 2
CLSC 4083  Advanced Clinical Chemistry 3
CLSC 4087  Chemistry Practicum 4
Total Credit Hours 50

Additional Curriculum for Clinical Chemistry Post-Baccalaureate Certificate

CLSC 3010  Body Fluids 2
CLSC 3051  Hematology 3
CLSC 3052  Hematology Laboratory 2
CLSC 3081  Clinical Chemistry 2.5
CLSC 3082  Clinical Chemistry Laboratory 1.5
CLSC 4083  Advanced Clinical Chemistry 3
CLSC 4088  Clinical Chemistry Categorical Practicum 6
Total Credit Hours 20

Additional Curriculum for Hematology Post-Baccalaureate Certificate

CLSC 3010  Body Fluids 2
CLSC 3051  Hematology 3
CLSC 3052  Hematology Laboratory 2
CLSC 4053  Advanced Hematology 2
CLSC 4058  Hematology Categorical Practicum 6
Total Credit Hours 15

Additional Curriculum for Immunohematology Post-Baccalaureate Certificate

CLSC 3051  Hematology 3
CLSC 3052  Hematology Laboratory 2
CLSC 3060  Immunohematology 2
CLSC 3064  Immunohematology Laboratory 2
CLSC 4055  Advanced Immunohematology 2
CLSC 4068  Immunohematology Categorical Practicum 6
Total Credit Hours 17

Additional Curriculum for Microbiology Post-Baccalaureate Certificate

CLSC 3040  Special Topics in Microbiology 2.5
CLSC 3010  Body Fluids 2
CLSC 3033  Medical Microbiology 3
CLSC 3034  Medical Microbiology Lab 2
CLSC 3071  Diagnostic Immunology Laboratory 0.5
CLSC 4033  Advanced Medical Microbiology 2
CLSC 4038  Microbiology Categorical Practicum 10
Total Credit Hours 22

Clinical Laboratory Sciences Objectives/Program Outcomes

Students graduating from a Department of Clinical Laboratory Science program must meet the essential function requirements of the academic program and profession. They will complete programs consisting of academic study and clinical laboratory experience. The student will possess the skills and attributes necessary to perform as a professional before graduation from the program. These skills and attributes are known as essential functions and include the following:

Observation
The student will be able to:
- Observe laboratory demonstrations in which laboratory procedures are performed on biological specimens (i.e. body fluids, culture materials, tissue sections, and cellular specimens).
- Characterize the color, consistency, and clarity of biological specimens and reagents.
- Department of Public Safety Laboratory
- Use a clinical grade binocular microscope to discriminate among fine differences in structure and color (hue, shading, and intensity) in microscopic specimens.
- Read and comprehend text, numbers, and graphs displayed in print, on audiovisual media and on a video monitor.

Mobility
The student will be able to:
- Perform laboratory testing independently while adhering to existing laboratory safety standards.
- Perform moderately taxing continuous physical work, often requiring prolonged sitting and/or standing, over several hours.
• Travel to numerous clinical laboratory practicum sites.
• Reach laboratory bench tops and shelves, patients lying in hospital beds or patients seated in specimen collection furniture.
• Grasp, hold, transport, utilize specimens, reagents, hazardous chemicals, and equipment in a safe manner as needed to perform laboratory testing.
• Obtain patient specimens in a timely, safe, and professional manner (e.g. perform phlebotomy).
• Use laboratory equipment (e.g. pipettes, inoculating loops, test tubes) and instruments to perform laboratory procedures according to established laboratory guidelines.
• Use a computer to operate laboratory instruments and to calculate, record, evaluate, and transmit laboratory information.
• Troubleshoot and correct equipment malfunctions.

Communication
The student will be able to:
• Read and understand technical and professional materials (i.e. textbooks, journal articles, handbooks, and instruction manuals).
• Follow oral and written instructions independently.
• Clearly instruct patients regarding specimen collection.
• Demonstrate sensitivity, confidentiality and respect when speaking with or about patients or about patients’ data.
• Communicate clearly, accurately and tactfully with faculty members, student colleagues, staff and other health care professionals orally and in a recorded format (writing, typing, graphics, or telecommunication). Oral communication includes the ability to ask and respond to formal and informal questions with confidence at an appropriate professional level. Written communication includes the ability to use correct grammar and spelling as well as the appropriate level of formality.

Intellect
The student will be able to:
• Comprehend, measure, calculate, reason, integrate, analyze, evaluate, correlate, problem-solve and compare.
• Recognize abnormal laboratory results (e.g. patient and QC) and take appropriate action.
• Demonstrate critical-thinking and judgment skills appropriate to a given situation.

Behavior
The student will be able to:
• Organize work and perform multiple tasks within given time constraints and under stressful conditions while maintaining the ability to communicate clearly.
• Be flexible and adapt to professional and technical change.
• Recognize potentially hazardous situations and proceed safely to minimize risk to self and others.
• Be a team player (i.e. support and promote activities of colleagues and other health care professionals).
• Accept and act on constructive criticism, critically evaluate self-performance, recognize and correct mistakes.
• Be honest, compassionate, responsible, reliable and ethical.
• Exercise independent judgment and accept responsibility for their work.

Clinical Laboratory Sciences Program Policies and Information
Advancement to the Senior Year
A student must have no grade lower than a C in required science and clinical laboratory sciences courses to begin the senior year and begin clinical practicums. In addition, a CLS student must file an Intent to Enroll in Clinical Practicum form, available from the department office at least one semester before practicums begin. Students who are ready for clinical practicums are randomly placed based on availability of positions at the affiliate sites throughout South Texas. All students are expected to complete at least one practicum at an affiliate located outside of San Antonio. In the unlikely event that there are not enough sites available for the number of students ready to enter practicums, assignments will be made according to program policies. Students who must remediate a practicum will be assigned to an affiliate on a space-available basis.

Advisement and Schedule Planning
Applicants are encouraged to seek advisement from their college counselors or the Health Professions Office of Advising, Admissions and Recruitment (http://SHPwelcome.uthscsa.edu) at (866) 802-6220 (toll-free) or (210) 567-6220. Students who complete lower-division coursework at another college or university are urged to seek advisement about coursework that will fulfill program requirements well in advance of applying to the Health Science Center. Students must be advised each semester before permission is given to enroll in professional courses. Students enrolled in the Clinical Laboratory Sciences baccalaureate or post-baccalaureate certificate programs may attempt to earn credit by examination according to the policy and procedures in the School of Health Professions section of this Catalog. Students who have college credit for CLT/MLT coursework are eligible to take challenge examinations. Students who are certified CLT (NCA) or MLT (ASCP), have completed a CLT/MLT program accredited by NAACLS, and have an associate degree are not required to take challenge examinations. Challenge examinations must be passed with a grade of 70% or better for credit to be earned. For detailed information about eligible courses, fees, schedules, and procedures, contact the Department of Clinical Laboratory Sciences.

Certification
Students who successfully complete a certificate or degree in Clinical Laboratory Sciences or Cytogenetics are eligible to take the national certification examinations given by the Board of Certification (BOC) of the American Society for Clinical Pathology (ASCP). Awarding of the degree or certificate is not contingent on passing an external certification or licensing examination.

Credit by Examination
Students enrolled in the Clinical Laboratory Sciences baccalaureate or post-baccalaureate certificate programs may attempt to earn credit by examination according to the policy and procedures in the School of Health Professions section of this Catalog. Students who have college credit for CLT/MLT coursework are eligible to take “challenge examinations.” Students who are certified CLT (NCA) or MLT (ASCP), have completed a CLT/MLT program accredited by NAACLS, and have an associate degree are not required to take challenge examinations. Challenge examinations must be passed with a grade of 70% or better for credit to be earned. For detailed information about eligible courses, fees, schedules, and procedures, contact the Department of Clinical Laboratory Sciences.

Placement Examinations
Individuals who have certification from NCA or ASCP as a CLT or MLT, have graduated from an accredited CLT/ MLT program with an associate degree and are entering the senior year are given placement examinations to determine areas of discipline strengths and weaknesses.
Practicum Assignments
Clinical practicums aim to provide comprehensive exposure to a wide variety of technology. Primary site assignment is made to provide the student with a breadth of experiences that encompass all major content areas. Assignment to clinical affiliates for practicum courses is based on availability of positions at the affiliate sites. Practicum courses typically begin in the spring semester and are completed during the summer semester.

All students are expected to complete at least one practicum at an affiliate located outside of San Antonio. If a student declines to go to an assigned affiliate, this will result in a loss of the student’s practicum position and possible delay of graduation. Students who have special needs and request specific considerations for practicum assignments must put the request in writing to the department chair at least one semester before the practicum begins. The chair will take the request to the faculty who will approve or disapprove the request.

Program Costs
In addition to required tuition and fees, there are costs for textbooks, scrubs, and equipment. The full-time clinical fieldwork experiences included in the curriculum may require that students locate outside of San Antonio for the duration of the rotations. Fieldwork expenses will vary according to individual arrangements depending on the cost of travel, temporary housing, maintenance of local accommodations, etc. Students are encouraged to budget for major expenditures that could be associated with these assignments. Detailed information about program costs can be found on the Department of Clinical Laboratory Sciences website.

Transfer of Credits
Agreements for transferable coursework exist with some area colleges and universities. Students should contact the Department of Clinical Laboratory Sciences or the biology advisor at their institution to determine if such an agreement exists with their school.

For additional information, see the policies and procedures in the School of Health Professions section of this Catalog.

Toxicology

Master of Science in Toxicology
The Master of Science in Toxicology is a graduate degree program administered by the Graduate School of Biomedical Sciences (GSBS). All coursework is completed at the Health Science Center, except for a maximum of 6 semester credit hours of transfer courses that may be completed at another institution. Students in the program follow policies and procedures of the GSBS. For further information, see the Graduate School of Biomedical Sciences section of this Catalog.

Master of Science in Toxicology Admissions Requirements
Applications for fall entry (July) into the Master of Science in Toxicology program must be received by the Office of the Registrar by the application deadline of April 1. Applicants are encouraged to seek advisement from their college counselors or the School of Health Professions Office (http://shpwelcome.uthscsa.edu) of Advising, Admissions, and Recruitment Support.

Admission requirements for the Master of Science in Toxicology program include:

- Bachelor’s degree in clinical laboratory science (medical technology), biology, chemistry, or other related discipline from an accredited institution in the United States
- Minimum undergraduate GPA of 3.0 (on a 4.0 scale)
- Completion of all prerequisite coursework (note: all science courses must be completed with a grade of C or better):
  - Biochemistry, 3.0 hours
  - Biology, 4.0 hours
  - Physiology, 4.0 hours
  - General Chemistry I and II with labs, 8.0 hours
  - Organic Chemistry I and II with labs, 8 hours
  - Instrumental Analysis or Clinical Chemistry, 3.0 hours
  - Calculus, 3.0 hours
- Highly Recommended:
  - Immunology, 3.0 hours
  - Physics I and II with labs, 3.0 hours
  - Statistics, 3.0 hours
- Completion of the Texas Common Application
- Payment of the non-refundable application fee
- Graduate Record Examination; scores must be competitive (for tests taken prior to August 2011, combined Verbal and Quantitative 1000 and for tests taken in August 2011 or later, combined Verbal and Quantitative 300) and may not be older than 5 years
- Official transcripts from each college and university currently or previously attended. Applicants who are enrolled in college courses at the time of application should submit an official transcript showing courses in progress. An updated transcript must be submitted upon completion of the courses. Note: Transfer credits indicated on another school’s transcript are not accepted in lieu of submitting the original institution record for that coursework. Transcripts from institutions outside the United States must be submitted in the original language and must be accompanied by a course-by-course evaluation through a NACES Members agency.

- Two Reference Forms from former or current instructors or employers
- International Applicants only: Submit Test of English as a Foreign Language (TOEFL); minimum scores 560 (paper) or 68 (Internet).

Master of Science in Toxicology Degree Requirements
The Master of Science in Toxicology program is designed for students who hold a bachelor’s degree in clinical laboratory sciences, biology, chemistry, or other related discipline from an accredited institution. The program offers a specialization in toxicology. Research opportunities in specialized laboratories may be available in specialized laboratories at the Health Science Center and selected laboratories in South Texas.

The minimum number of semester credit hours for graduation is 37.0 and the minimum grade point average for graduation with the Master of Science degree is 3.0 (see Graduate School of Biomedical Sciences).
The Department of Emergency Health Sciences offers certificate programs for EMT-Basic and Advanced Practice/Community Paramedic that, at a minimum, prepare graduates for national certification and entry into the EMS profession. The department also offers a Bachelor of Science in Emergency Health Sciences degree program for applicants already holding Paramedic certification. The certificate programs are accredited by the Committee on Accreditation of Educational Programs for the EMS Professions (CoAEMSP) (http://www.coaemsp.org), 4101 W. Green Oaks Blvd., Suite 305-599, Arlington, Texas 76016, and by the Texas Department of State Health Services, Bureau of Emergency Management (http://www.dshs.state.tx.us/emstraumasystems/default.shtm), 1100 W. 49th Street, Austin, Texas 78756-3199.

Within the Department of Emergency Health Sciences, there are two divisions that offer certifications.

**THE DIVISION OF INITIAL EDUCATION**

The Division of Initial Education offers:
- EMT certification
- Advanced Practice/Community Paramedic certification
- Bachelor of Science degree in Emergency Health Sciences

**EMT-Basic Certification**

Classroom instruction covers Basic Life Support knowledge and skills criteria, clinical and field internship. Successful completion of the course requirements prepares the student for the National Registry of EMT certification examination.

**Advanced Practice/Community Paramedic Certification**

Classroom instruction covers anatomy, physiology, patient assessment, advanced airway shock/trauma management, cardiovascular disease recognition and management, advanced treatment protocols for trauma, medical and special patient emergencies, clinical and field internship. In addition, this program will prepare graduates to serve in expanded patient care roles and primary care services. Additional classroom and clinical instruction includes human diseases, advanced cardiac care, wound care, injury prevention, diagnostic testing, hemodynamic monitoring devices, pharmacology, critical care transport, and flight physiology. Successful completion of the course requirements prepares a student for NREMT-Paramedic certification examination, Critical Care Paramedic, and/or Flight Paramedic Certification.

**Bachelor of Science in Emergency Health Sciences**

Paramedics who have earned a certificate may choose to continue their education to earn a Bachelor of Science degree in Emergency Health Sciences (EHS) offered by the Department of Emergency Health Sciences. This degree is offered as an online program. The baccalaureate degree offers additional opportunities in the field of prehospital emergency medical technology in administration, teaching, or advanced level practice.

The objective of the baccalaureate degree program is to broaden the knowledge base and professional skills of emergency medical services (EMS) professionals who wish to pursue a degree that will help enable them to fulfill an advanced leadership role within the community and help provide them with an enhanced capability to facilitate the delivery of EMS and emergency/community health services. The EHS degree
provides the graduate with the opportunity to gain knowledge and skills necessary to assume positions of responsibility in the Emergency Medical Services provision to political entities, educational institutions, and private enterprises. Generally, the EHS degree program provides the graduate with information on how to manage and direct EMS organizations, deliver educational and regulatory information to many and varied communities of interest and students, and they may satisfy disaster management/planning requirements for localities as emergency managers.

All of the Emergency Health Sciences degrees help the graduate assume broader positions of responsibility in a variety of health care, research, business, community and educational settings, and to adapt to new rules precipitated by a changing health care delivery environment.

THE DIVISION OF COMMUNITY EDUCATION

The Division of Community Education offers:

• EMT-Basic certification
• Paramedic certification

These programs are offered in off-campus locations and on dates and times that are more conducive to working adults. These programs do not initially award college credit. Contact the Division of Community Education for schedules and separate application procedures.

EMT-Basic Certification

Classroom instruction covers Basic Life Support knowledge and skills criteria, clinical and field internship. Successful completion of the course requirements prepares the student for the National Registry of EMT certification examination.

Paramedic Certification

Classroom instruction covers anatomy, physiology, patient assessment, advanced airway shock/trauma management, cardiovascular disease recognition and management, advanced treatment protocols for trauma, medical and special patient emergencies, and clinical and field internship. Graduates of the program are eligible to take the NREMT Paramedic certification examination (http://www.nremt.org/nremt/about/nremt_news.asp).

Emergency Health Sciences Admissions Requirements

All applicants must meet the basic requirements for admission to the Department of Emergency Health Sciences. If a student is convicted of a felony or misdemeanor at any time during enrollment in any EHS program, the student must inform the chair and clinical coordinator in writing and submit a current background check. Please note: Admission to any EHS program does not guarantee eligibility for the National Registry of Emergency Medical Technicians or certification by Texas Department of State Health Services.

All application materials must be received by the Office of the Registrar by the application deadlines listed below. Applicants are encouraged to seek advisement from their high school/college counselors or the School of Health Professions Office of Advising, Admissions, and Recruitment Support (http://shpwelcome.uthscsa.edu).

• May 1 for July enrollment (Fall semester)
• November 1 for January enrollment (Spring semester)

Applications for certificate and degree programs are reviewed as they are received. The Emergency Health Sciences Admissions Committee reviews applications and admits students based on application review. Applicants are notified by mail of their acceptance or non-acceptance. The number of students is limited by spaces available for clinical experience in affiliated hospitals and EMS provider organizations. Competitive selection of students may be necessary if the number of applicants exceeds the number of seats available.

In addition to non-academic factors that are considered, admission requirements for all EHS programs include:

• Completion of the Texas Common Application.
• First-time College Students: Submit documentation of high school diploma or GED. Note: The EMT Basic program is exempt from the Texas Success Initiative requirements.
• Official transcripts from each college and university currently or previously attended.
• Applicants who are enrolled in college courses at the time of application should submit an official transcript showing courses in progress. An updated transcript must be submitted upon completion of the courses. Note: Transfer credits indicated on another school’s transcript are not accepted in lieu of submitting the original institution record for that coursework. Transcripts from institutions outside the United States must be submitted in the original language and must be accompanied by a NACES Members evaluation agency English translation.
• Minimum overall GPA of 2.0 (on a 4.0 scale).
• Documentation of EMT certification. Students who currently are enrolled in an EMT course or who have completed EMT course work and are engaged in the credentialing process should provide a statement to this effect.
• International Applicants only: Submit Test of English as a Foreign Language (TOEFL (http://www.ets.org/toefl)) scores: minimum: 560 (paper), or 68 (internet).

Additional Requirements for the Advanced Practice Paramedic Program

• Proof of successful completion of the American Heart Association’s Basic Life Support course.
• 18 years of age by program completion/graduation date.
• Achieve minimum assessment scores in reading comprehension and math skills. Any combination of scores from the reading and math test columns below can be used to fulfill the assessment testing requirement as long as the scores are at or above the minimum score listed. TASP, THEA, SAT, and ACT scores have no expiration date. All other test scores are valid for two years from time of testing to date of application.

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<thead>
<tr>
<th>Test</th>
<th>Minimum Score</th>
<th>Math Skills Tests</th>
<th>Minimum Score</th>
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<td>ACCUPLACER</td>
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<td>230</td>
<td>ACCUPLACER Math 2</td>
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</tr>
<tr>
<td>THEA Reading</td>
<td>230</td>
<td>TASP Math</td>
<td>230</td>
</tr>
</tbody>
</table>
The following students are exempt from the above assessment requirements:

- A student who has graduated with an associate or baccalaureate degree from an institution of higher education
- A student who has previously attended any institution and has been determined to have met readiness standards by that institution.
- A student who is serving on active duty as a member of the armed forces of the United States, the Texas National Guard, or as a member of a reserve component of the armed forces of the United States and has been serving for at least three years preceding enrollment.
- Paramedic applicants in certificate programs other than the Advanced Practice Paramedic Program.
- A student who on or after August 1, 1990, was honorably discharged, retired, or released from active duty as a member of the armed forces of the U.S., the Texas National Guard, or service as a member of a reserve component of the armed forces of the United States.
- Completion of previous applicable course work (ENGL, RDNG, MATH) with a grade of C or higher.

Additional Admission Requirements for the Bachelor of Science in EHS

- Current Texas or national certification as an EMT-Paramedic (minimum of 30 semester credit hours in EMT-Basic and EMT-Paramedic coursework)
- Completion of the Texas Core Curriculum
- English Composition I & II, 6 hours
- College Algebra, 3 hours
- Biology I & II with labs or Anatomy & Physiology I & II with labs, 8 hours
- Any additional Science course with lab, 4 hours
- Any philosophy, language, humanities, or English course, 3 hours
- Any arts, drama, or music course, 3 hours
- History 1301 & 1302, 6 hours
- Government 2301 & 2303 or 2305 & 2306, 6 hours
- Any psychology or sociology course, 3 hours

Emergency Health Sciences Degree Requirements

EMT-BASIC CERTIFICATE

The EMT certificate program consists of 6 semester credit hours. Students are required to complete all didactic, laboratory, EMS, and clinical requirements.

ADVANCED PRACTICE PARAMEDIC CERTIFICATE

The Advanced Practice Paramedic certificate program consists of 42 semester credit hours. Students are required to complete all didactic, laboratory, EMS, and clinical requirements.

BACHELOR OF SCIENCE IN EMERGENCY HEALTH SCIENCES (ONLINE PROGRAM)

The Bachelor of Science in Emergency Health Sciences curriculum consists of 124 semester credit hours, including the Texas Core Curriculum, an EMT-Paramedic certificate (minimum of 27 semester credit hours) and 52 semester credit hours of advanced courses completed online through the Health Science Center. The Paramedic certificate may be completed at any regionally accredited college or university. Core Curriculum courses must be completed at another regionally accredited college or university before admission into the Health Science Center BS program.

The EMT Certificate, the Paramedic Certificate, or the Bachelor of Science degree is awarded upon the satisfactory completion of prescribed academic programs, recommendation of the Emergency Health Sciences faculty and certification of the candidate by the Dean and President to the Board of Regents. A candidate for graduation must have completed all courses at a satisfactory level and earned a cumulative GPA of 2.0 in the Certificates or Bachelor of Science degree program. Completion of the total unit requirement with passing grades does not necessarily assure candidates a recommendation for graduation.

Emergency Health Sciences Sample Plans of Study

EMT-Basic Curriculum

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>EMSP 1160</td>
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</tr>
<tr>
<td>EMSP 1401</td>
<td>EMT Basic</td>
<td>5</td>
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<tr>
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<td>6</td>
</tr>
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</table>

SAFD Paramedic Curriculum

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EMSP 1201</td>
<td>Anatomy and Physiology for Paramedic Practice</td>
<td>2</td>
</tr>
<tr>
<td>EMSP 1238</td>
<td>Introduction to Paramedic Practice</td>
<td>2</td>
</tr>
<tr>
<td>EMSP 1248</td>
<td>Emergency Pharmacology</td>
<td>2</td>
</tr>
<tr>
<td>EMSP 1256</td>
<td>Airway Management and Patient Assessment</td>
<td>2</td>
</tr>
<tr>
<td>EMSP 1344</td>
<td>Cardiology</td>
<td>3</td>
</tr>
<tr>
<td>EMSP 1161</td>
<td>Clinical 1</td>
<td>1</td>
</tr>
<tr>
<td>EMSP 1162</td>
<td>Clinical 2</td>
<td>1</td>
</tr>
<tr>
<td>EMSP 2138</td>
<td>EMS Operations</td>
<td>1</td>
</tr>
<tr>
<td>EMSP 2255</td>
<td>Trauma Management</td>
<td>2</td>
</tr>
<tr>
<td>Course Code</td>
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<tr>
<td>-------------</td>
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</tr>
<tr>
<td>EMSP 2334</td>
<td>Medical Emergencies 1</td>
<td>3</td>
</tr>
<tr>
<td>EMSP 2230</td>
<td>Special Populations</td>
<td>2</td>
</tr>
<tr>
<td>EMSP 2243</td>
<td>Assessment-Based Management</td>
<td>2</td>
</tr>
<tr>
<td>EMSP 2164</td>
<td>Paramedic Practicum</td>
<td>1</td>
</tr>
<tr>
<td>EMSP 1137</td>
<td>Emergency Procedures 1</td>
<td>1</td>
</tr>
<tr>
<td>EMSP 2237</td>
<td>Emergency Procedures 2</td>
<td>2</td>
</tr>
<tr>
<td>EMSP 2300</td>
<td>Preparation for Professional Practice</td>
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### Advanced Practice/Community Paramedic Curriculum

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<tr>
<td>EMSP 1201</td>
<td>Anatomy and Physiology for Paramedic Practice</td>
<td>2</td>
</tr>
<tr>
<td>EMSP 1238</td>
<td>Introduction to Paramedic Practice</td>
<td>2</td>
</tr>
<tr>
<td>EMSP 1248</td>
<td>Emergency Pharmacology</td>
<td>2</td>
</tr>
<tr>
<td>EMSP 1256</td>
<td>Airway Management and Patient Assessment</td>
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</tr>
<tr>
<td>EMSP 1344</td>
<td>Cardiology</td>
<td>3</td>
</tr>
<tr>
<td>EMSP 1161</td>
<td>Clinical 1</td>
<td>1</td>
</tr>
<tr>
<td>EMSP 1162</td>
<td>Clinical 2</td>
<td>1</td>
</tr>
<tr>
<td>EMSP 2138</td>
<td>EMS Operations</td>
<td>1</td>
</tr>
<tr>
<td>EMSP 2255</td>
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<td>2</td>
</tr>
<tr>
<td>EMSP 2334</td>
<td>Medical Emergencies 1</td>
<td>3</td>
</tr>
<tr>
<td>EMSP 2230</td>
<td>Special Populations</td>
<td>2</td>
</tr>
<tr>
<td>EMSP 2243</td>
<td>Assessment-Based Management</td>
<td>2</td>
</tr>
<tr>
<td>EMSP 2164</td>
<td>Paramedic Practicum</td>
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</tr>
<tr>
<td>EMSP 1137</td>
<td>Emergency Procedures 1</td>
<td>1</td>
</tr>
<tr>
<td>EMSP 2237</td>
<td>Emergency Procedures 2</td>
<td>2</td>
</tr>
<tr>
<td>EMSP 2378</td>
<td>Critical Care Paramedic</td>
<td>3</td>
</tr>
<tr>
<td>EMSP 2274</td>
<td>Medical Emergencies 2</td>
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<tr>
<td>EMSP 2278</td>
<td>Advanced Pharmacology</td>
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<tr>
<td>EMSP 2371</td>
<td>Physical Exam and History Taking</td>
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<td>EMSP 2376</td>
<td>Cardiology 2</td>
<td>3</td>
</tr>
<tr>
<td>EMSP 2174</td>
<td>Practicum for Advanced Paramedic Practice</td>
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</tr>
<tr>
<td>EMSP 2177</td>
<td>Emergency Procedures 3</td>
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</tr>
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</table>

The bachelor’s degree program is designed to meet individual students’ educational and career goals. Therefore, in consultation with the program director, the student may create an individualized curriculum of at least 52 semester credit hours from the courses listed below.

### BS in Emergency Health Sciences Curriculum (online program)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EMSP 3001</td>
<td>Foundations of Emergency Health Sciences</td>
<td>3</td>
</tr>
<tr>
<td>EMSP 3003</td>
<td>Critical Care Medicine</td>
<td>3</td>
</tr>
<tr>
<td>EMSP 3004</td>
<td>Pharmacology 1 for EMS Providers</td>
<td>3</td>
</tr>
<tr>
<td>EMSP 3006</td>
<td>Electrocardiology in Emergency Health Science</td>
<td>3</td>
</tr>
<tr>
<td>EMSP 3007</td>
<td>Human Diseases</td>
<td>3</td>
</tr>
<tr>
<td>EMSP 3011</td>
<td>EMS Informatics</td>
<td>3</td>
</tr>
<tr>
<td>EMSP 3012</td>
<td>Behavioral Medicine and Psychopathology</td>
<td>3</td>
</tr>
<tr>
<td>EMSP 3013</td>
<td>Professional Orientation and Legal Foundations</td>
<td>3</td>
</tr>
<tr>
<td>EMSP 3031</td>
<td>Directed Study</td>
<td>1-4</td>
</tr>
<tr>
<td>EMSP 3100</td>
<td>Orientation to Online Learning</td>
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</tr>
<tr>
<td>EMSP 3041</td>
<td>Current Research In Emergency Health Sciences</td>
<td>3</td>
</tr>
<tr>
<td>EMSP 4001</td>
<td>Physical Examination and History Taking</td>
<td>3</td>
</tr>
<tr>
<td>EMSP 4002</td>
<td>Pathophysiology for EMS Providers</td>
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</tr>
<tr>
<td>EMSP 4003</td>
<td>Flight Medicine</td>
<td>3</td>
</tr>
<tr>
<td>EMSP 4004</td>
<td>Management of Disasters and Hazard Materials</td>
<td>3</td>
</tr>
<tr>
<td>EMSP 4005</td>
<td>EHS Systems Management and Budget</td>
<td>3</td>
</tr>
<tr>
<td>EMSP 4006</td>
<td>Educational Issues in Emergency Health Sciences</td>
<td>3</td>
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<tr>
<td>EMSP 4007</td>
<td>Human Resource Development</td>
<td>3</td>
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<tr>
<td>EMSP 4008</td>
<td>Leadership Development</td>
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<tr>
<td>EMSP 4012</td>
<td>Pharmacology 2 for EMS Providers</td>
<td>3</td>
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<tr>
<td>EMSP 4021</td>
<td>Internship</td>
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</tr>
<tr>
<td>Total Credit Hours</td>
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</tr>
</tbody>
</table>

**Emergency Health Sciences Objectives/Program Outcomes**

Students graduating from a Department of Emergency Health Sciences program must meet the essential function requirements of the academic program and profession. They will complete programs consisting of academic study and clinical laboratory experience. The student will possess the skills and attributes necessary to perform as a professional before graduation from the program.

Students who graduate from the Emergency Health Sciences programs will be able to:

- communicate effectively, think critically, and assimilate into their community successfully;
- demonstrate personal behaviors and attitudes consistent with and appropriate to the delivery of pre-hospital emergency medical care;
- meet the community’s need for advanced life support personnel in a variety of settings;
- work in various occupational settings relating to emergency health services;
- understand theoretical foundations of the profession; and
- synthesize knowledge from the basic sciences, social sciences, humanities, and pre-hospital emergency science to conceptualize and resolve patient and health care delivery problems.
Emergency Health Sciences Program Policies

CREDIT BY EXAMINATION

The Department of Emergency Health Sciences offers three categories of credit by examination:

1. certified/licensed EMS personnel who completed EMT-Basic and/or Paramedic coursework for non-credit through the Department of EHS certification program;
2. students admitted to the EHS Bachelor of Science degree program; and
3. certified/licensed medical personnel (EMT, Paramedic, RN, MD, etc.) who have undergone review and approval by the Chair of the EHS department in conjunction with the Texas Department of State Health Services rules.

Previous professional employment can potentially be accepted for EHS clinical course credit. A student’s work experience will be reviewed on an individual basis by the course directors and the department’s academic team. If the student fails a challenge examination/evaluation, he/she may enroll in and attend the corresponding course only during regularly scheduled course offerings in order to receive credit.

The credit-by-examination process allows one to enroll in the course, pay the required examination fees, and schedule the examination date(s). The examination consists of the final written examination from the corresponding course and/or a verification of skill proficiency, and/or a verification of previous professional experience to assist with granting credit for clinical courses.

Students who wish to obtain credit by examination should contact the Department of Emergency Health Sciences at (210) 567-8760 for further information.

Program Costs

In addition to required tuition and fees, there are costs for textbooks, scrubs, and equipment. The full-time clinical fieldwork experiences included in the curriculum may require that students relocate and/or travel outside of San Antonio for the duration of the rotations. Fieldwork expenses will vary according to individual arrangements depending on the cost of travel, temporary housing, maintenance of local accommodations, etc. Students are encouraged to budget for major expenditures that could be associated with these assignments. Detailed information about program costs can be found on the Department of Emergency Health Sciences website.

Occupational Therapy

Occupational Therapy involves the assessment and treatment of individuals whose ability to perform tasks of living is threatened or impaired by developmental disability, physical disability, psychosocial dysfunction, sensory impairment, or the aging process. The occupational therapy process involves the prevention or correction of physical, developmental, or emotional problems that affect functional performance of the individual. The goal of occupational therapy is to assist the client in the performance of activities that provide meaning to her or his life.

Occupational therapists serve clients of all ages in a variety of settings including rehabilitation facilities, long-term care facilities, public schools, psychiatric hospitals, day care facilities, sheltered workshops, community agencies, and industrial sites.

Graduates of the MOT program are eligible to take the national certification examination administered by the National Board for Certification in Occupational Therapy (NBCOT) and to apply for licensure that is required for practice in most states. Note that a felony conviction may affect a graduate’s ability to sit for the NBCOT examination or attain state licensure. Please be aware that disciplinary actions in your past, either felonies or misdemeanors, should be addressed with the Texas Board of Occupational Therapy Examiners beforehand. Waiting to report it on your application for licensure will cause a delay in issuing a license. It is recommended that applicants use this review before applying to or attending an OT program.

The MOT program is accredited through the Accreditation Council for Occupational Therapy Education (ACOTE) (http://www.aota.org/Educate/Accredit.aspx). For further information about the accreditation process contact:

American Occupational Therapy Association
4720 Montgomery Lane Ste 200
Bethesda, MD 20814-3449
Telephone: (301) 652-2682
www.acoteonline.org (http://www.acoteonline.org)

Occupational Therapy Admissions Requirements

The Master of Occupational Therapy (MOT) consists of 101 semester credit hours of graduate-level coursework, including 6 months of full-time clinical fieldwork. A baccalaureate degree, completed by the end of the fall semester prior to summer admission, is required for admission to the program. Applicants are encouraged to seek advisement from their college counselors or the Health Professions Office of Advising, Admissions and Recruitment Support at (866) 802-6288 (toll-free) or (210) 567-6220.

Applications for the MOT program are accepted between August 15 and November 1. The Texas Common Application (https://www.applytexas.org/adappc/gen/c_start.WBX?_s_logo_mgs=Y), the application fee, official transcripts, and all supporting documents must be submitted to the Office of the Registrar by the application deadline of November 1. The first semester of MOT coursework typically begins the last week of May.

In addition to non-academic factors that are considered, admission requirements for the Master of Occupational Therapy program include:

- Payment of the non-refundable application fee
- Official transcripts from each college and university attended (Note: All transcripts from institutions outside the United States must be submitted in the original language and must be accompanied by a course-by-course evaluation through a NACES Members (http://www.naces.org/members.htm) agency.)
- Grade point average (GPA) of at least 3.0 on MOT Program prerequisites
- Knowledge and understanding of occupational therapy gained through a minimum of 40 hours volunteer and/or observation under the general supervision of a licensed occupational therapist as documented on Documentation of Experience form
- Two Letters of Reference (http://studentservices.uthscsa.edu/pdf/AHReFm-Web.pdf), preferably from licensed occupational therapists
• Interviews with Occupational Therapy faculty
• Completion of all MOT Program prerequisites (27 hours) by the end of the fall semester prior to admission the following summer:
  • Human Anatomy with lab OR Anatomy & Physiology I, 4 hours
  • Human Physiology with lab OR Anatomy & Physiology II, 4 hours
  • Physics or Kinesiology (Principles of Dynamics of Movement), 3 hours
  • Abnormal Psychology, 3 hours
  • Development Psychology, 3 hours
  • Statistics, 3 hours
  • Medical Terminology, 1 hour
  • Technical Writing or an advanced writing course, 3 hours [Note: Composition I and II may not be used for this prerequisite. This must be an advanced writing course which may be offered in any area of study in a university.]
• International Applicants only: Submit Test of English as a Foreign Language (TOEFL (http://www.ets.org/toefl)) scores; minimum scores 560 (paper) or 68 (Internet).

Occupational Therapy Degree Requirements
The professional phase of the Master of Occupational Therapy curriculum consists of 101 semester credit hours taken over 31 months of study.

Occupational Therapy Sample Plan of Study
Master of Occupational Therapy Curriculum

<table>
<thead>
<tr>
<th>First Year</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Summer</td>
<td></td>
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</tr>
<tr>
<td>OCCT 5001</td>
<td>Theoretical Foundations of Occupational Therapy</td>
<td>2</td>
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<tr>
<td>OCCT 5013</td>
<td>Applied Biomechanics of Movement</td>
<td>3</td>
</tr>
<tr>
<td>Fall</td>
<td></td>
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<tr>
<td>OCCT 5007</td>
<td>Occupational Justice and Participation</td>
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<td>OCCT 5010</td>
<td>Human Occupation across the Lifespan</td>
<td>3</td>
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<tr>
<td>OCCT 5012</td>
<td>Application of Neural Systems to Occupation</td>
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<tr>
<td>OCCT 5013</td>
<td>Applied Biomechanics of Movement</td>
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<td>OCCT 5014</td>
<td>Professional Communication in Occupational Therapy</td>
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<tr>
<td>OCCT 5023</td>
<td>Research 1: Assessment and Research Statistics</td>
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<td>Spring</td>
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<tr>
<td>OCCT 5011</td>
<td>Research 2: Introduction to Research and Design</td>
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<td>OCCT 5020</td>
<td>Occupational Therapy Process: Neonate-Preschool</td>
<td>4</td>
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<tr>
<td>OCCT 5021</td>
<td>Service Delivery Systems 1</td>
<td>2</td>
</tr>
<tr>
<td>OCCT 5022</td>
<td>Environmental Technologies 1</td>
<td>2</td>
</tr>
<tr>
<td>OCCT 5024</td>
<td>Clinical Medicine 1</td>
<td>1</td>
</tr>
<tr>
<td>OCCT 5071</td>
<td>Level 1 Fieldwork: Neonatal-Preschool</td>
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</tr>
</tbody>
</table>

| OCCT 6026  | Psychosocial Components of OT | 4 |
| Elective (may be taken any semester) |         |         |

| Second Year |         |         |
| Fall        |         |         |
| OCCT 5025  | Pathology for Occupational Therapy | 3 |
| OCCT 6027  | Health Care Management | 3 |
| OCCT 6020  | Occupational Therapy Process: School Age | 4 |
| OCCT 6021  | Service Delivery Systems 2 | 2 |
| OCCT 6022  | Environmental Technologies 2 | 3 |
| OCCT 6037  | OT Process: Adult Neuromuscular Dysfunction | 4 |
| OCCT 6045  | Clinical Medicine 3 | 1 |
| OCCT 6070  | Level 1 Fieldwork: School Age | 1 |
| OCCT 6076  | Level 1 Fieldwork: Adult Neuromuscular Dysfunction | 1 |

| Spring      |         |         |
| OCCT 5005  | The Role of Occupational Therapy in Low Vision Rehabilitation | 2 |
| OCCT 6024  | Clinical Medicine 2 | 1 |
| OCCT 6030  | OT Process: Adult Biomechanical Dysfunction | 4 |
| OCCT 6031  | Service Delivery Systems 3 | 3 |
| OCCT 6034  | Professional Issues | 1 |
| OCCT 6069  | Level 2 Fieldwork: Seminar | 1 |
| OCCT 6077  | Level 1 Fieldwork: Adult Biomechanical Dysfunction | 1 |
| OCCT 6074  | Level 2 Fieldwork: Adult Disabilities | 10 |

| Third Year  |         |         |
| Fall        |         |         |
| OCCT 6073  | Level 2 Fieldwork: Developmental Dysfunction | 10 |
| OCCT 5073  | Community Project | 6 |

Total Credit Hours: 101.0

Occupational Therapy Objectives/Program Outcomes
Upon completion of the Master of Occupational Therapy program, the student will demonstrate the attitudes, knowledge and skills necessary for competent practice. The graduating student will:

• Apply theoretical and empirical knowledge from the basic, behavioral, social, and occupational therapy sciences in planning and implementing occupational therapy practice.
• Advocate for clients, families, and the profession through employment as an OT.
• Communicate clearly and effectively in professional situations, using appropriate modes of expression, documentation and interpersonal interaction.
• Implement professional and scientific inquiry, methodology, and scholarly writing.
• Participate and contribute in the planning, development, and implementation of state of the art clinical practice.
• Demonstrate competencies in the complex, collaborative, and changing health care, educational and community environments.
• Display cultural competence in meeting the occupational performance needs of diverse populations.
• Provide occupational therapy services within the framework of legal, ethical, and professional standards.

Occupational Therapy Program Policies and Information

Ethics

Ethical principles reflect the values of a profession and thereby serve as action-oriented guidelines that are designed to be preventative rather than disciplinary. Occupational therapists are expected to obey the ethics adopted by the profession (AOTA Code of Ethics (http://www.aota.org), 2010). The Occupational Therapy Department subscribes to this ethical code and expects the behaviors of students to be consistent with these principles.

Fieldwork

Fieldwork is an important part of the educational process for becoming an occupational therapist. It represents the part of the program for the student to develop clinical skills through observation and experiential learning and to apply understanding of theory and techniques through extended, supervised experience.

Fieldwork occurs away from the Health Science Center at affiliated clinical institutions/sites. The majority of the Fieldwork sites are located within the State of Texas. Students may complete fieldwork only at assigned facilities. The Department maintains agreements with approved fieldwork sites, and these have been carefully selected to assure compatibility with the department philosophy, objectives, and curriculum design. The Academic Fieldwork Coordinator maintains contact with the fieldwork facilities to support links between the didactic and fieldwork aspects of the curriculum. Grades are based on the student’s performance, judgment, and attitude as measured by the on-site supervisor using the Fieldwork Performance Evaluation for the Occupational Therapy Student.

While students are given an opportunity to express their preferences for location of placements, the program cannot grant assurances that student will be placed in their setting of choice. Student placements are reserved many months (and in some cases, up to two years) in advance of a scheduled fieldwork experience. Students are responsible for observing therapy for the treatment of conditions relating to the concurrent semester’s theory and skills courses and to fulfill assignments of the theory or lab course. The Academic Fieldwork Coordinator maintains contact with the fieldwork facilities to support links between the didactic and fieldwork aspects of the curriculum. All assigned work including observational/participatory times, written and oral assignments, and class discussion participation must be satisfactorily completed in order for the student to receive a passing grade. Grades are based on the student’s performance, judgment, and attitude as measured by the on-site supervisor using the Fieldwork Performance Evaluation for the Occupational Therapy Student.

The student is responsible for making any required living arrangements and should be prepared to incur expenses for transportation, food, and lodging during required fieldwork assignments. Fieldwork students are expected to obey policies and procedures of the facility providing the fieldwork experience, and should submit all required assignments and evaluations, and other documentation as requested.

The Accreditation Council for Occupational Therapy Education (ACOTE) (http://www.aota.org/Educate/Accredit.aspx) requires completion of all fieldwork within 24 months following completion of academic preparation. This requirement assures continuity of academic concepts.

Program Costs

In addition to required tuition and fees, there are costs for textbooks, scrubs, and equipment. The full-time clinical fieldwork experiences included in the curriculum may require that students locate outside of San Antonio for the duration of the rotations. Fieldwork expenses will vary according to individual arrangements depending on the cost of travel, temporary housing, maintenance of local accommodations, etc. Students are encouraged to budget for major expenditures that could be associated with these assignments. Detailed information about program costs can be found on the Department of Occupational Therapy website.

Standards of Practice

The American Occupational Therapy Association (AOTA, 2010) (http://www.aota.org) publishes minimum standards of practice. These standards are viewed as minimum expectations for therapists as they conduct their professional activities on a daily basis. Please note that standards promulgated by other agencies, whether voluntary, regulatory, or institutional, may be more specific or rigorous than those published by AOTA.

Master of Physician Assistant Studies

The mission of the Department of Physician Assistant Studies is to prepare primary health care providers who will contribute to the improvement of the mental, social, and physical well-being of the undeserved and vulnerable people of South Texas. This mission is accomplished through culturally appropriate, socially relevant education, service, and scholarship.

The vision of the Department of Physician Assistant Studies is to be a recognized leader in primary health care education, scholarship, and service. This vision includes the education and training of competent and caring primary health care providers who will meet the needs of society, faculty, staff, and student service to the community and region; and scholarship that will impact, advance, and add to the knowledge of humanity and health.

Students who successfully complete the program receive a Master of Physician Assistant Studies (MPAS) degree. Graduates are eligible to sit for the Physician Assistant National Certifying Exam (PANCE) (http://www.nccpa.net/exams.aspx) given by the National Commission for Certification of Physician Assistants. Passing the PANCE is required for licensure in all states.

The Master of Physician Assistant Studies program is accredited by the Accreditation Review Commission on Education for the Physician Assistant, Inc. (ARC-PA) (http://www.arc-pa.org), 12000 Findley Road, Suite 150, Johns Creek, GA, 30097; phone (770) 476-1224, fax (770) 476-1738.
Master of Physician Assistant Studies
Admissions Requirements

Applications for the MPAS program are accepted for fall (July) admission between April 17 and September 1. Two separate applications are required: one must be made through the Central Application Service for Physician Assistants (https://secure.caspaonline.org) (CASPA) and one must be submitted directly to the HSC Office of the Registrar via the PAS Supplemental Application. Both applications are required.

The CASPA application (online) and the PAS Supplemental Application, official transcripts, reference letters, and all other supporting documents must be received by September 1 for admission the following July. Submit the PAS Supplemental Application, the supplemental application fee, and all supporting documents directly to the HSC Office of the Registrar: UT Health Science Center, Office of the Registrar– Health Professions, 7703 Floyd Curl Drive, MC 7702, San Antonio, TX 78229-3900. Prior-year applicants must submit a new application. Questions about re-application should be directed to the School of Health Professions Office of Advising, Admissions and Recruitment Support (http://shpwelcome.uthscsa.edu) or by phone at (210) 567-8569.

Applicant orientations are offered monthly between April and August. Additional information about orientation is available on the department web site (http://www.uthscsa.edu/shp/pa). Orientation reservations can be made by contacting the department by phone at (210) 567-8810 or by e-mail at pastudies@uthscsa.edu. Applicants are encouraged to seek advisement from their college counselors or the Health Professions Office of Advising, Admissions and Recruitment Support at (866) 802-6220 (toll-free) or (210) 567-8569.

In addition to non-academic factors that are considered, admission requirements for the Master of Physician Assistant Studies program include:

- Bachelor's degree from a regionally accredited college or university
- Completion of the CASPA application
- Completion of the PAS Supplemental application
- Payment of the non-refundable application fee
- Overall GPA of 3.0 on a 4.0 scale
- Science GPA of 3.0 on a 4.0 scale
- A grade of C or better in prerequisite coursework
- Completion of all prerequisite coursework by the application deadline of September 1 (Note: no prerequisites can be in progress after the deadline date):  
  - Biology I and II with labs (no Botany, Ecology or Environmental Science), 8 hours
  - Human Anatomy with lab, 4 hours
  - Human Physiology, 3 hours
  - General Chemistry I & II with lab, 8 hours
  - Organic Chemistry with lab, 4 hours
  - Microbiology, 3 hours
  - Genetics, 3 hours
  - Statistics, 3 hours
  - Psychology, 3 hours
- International Applicants only: Submit Test of English as a Foreign Language (TOEFL) scores; minimum scores 560 (paper) or 68 (Internet).

Master of Physician Assistant Studies
Degree Requirements

The Physician Assistant Studies program is an intense didactic and clinical program that consists of 116 semester credit hours. The curriculum is designed to prepare primary care Physician Assistants who will meet the needs of the people of South Texas. The program begins in the fall semester and runs continuously for 25.5 months. The didactic component of the curriculum consists of classroom, laboratory, and clinical preparation. This professional phase of the program is offered on the Health Science Center's Main Campus in San Antonio. Didactic instruction is designed to prepare the student to successfully complete the final year of supervised clinical practice and, ultimately, for practice as a Physician Assistant.

The MPAS program is based on 24-week super semesters; fall semesters begin the first week of July and end in mid-December; spring semesters begin in early January and end June 30th. The final months of the program include supervised clinical practice (clinical rotations) and occur in sites throughout South Texas. All students must complete a minimum of two rotations in rural or medically underserved locations. Students must be prepared to assume the expense for these rotations.

Rotations are full-time clinical experiences (minimum of 40+ hours per week). A pass-fail summative evaluation is administered during the final semester; students must pass the summative examination to qualify for graduation.

Master of Physician Assistant Studies
Sample Plan of Study

<table>
<thead>
<tr>
<th>First Year</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fall</td>
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<tr>
<td>CSBL 5012</td>
<td>Physician Assistant Gross Anatomy</td>
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<td>PHAS 5001</td>
<td>Patient Evaluation 1</td>
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<td>PHAS 5043</td>
<td>Physiology in Health and Disease</td>
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<tr>
<td>PHAS 6013</td>
<td>Scientific Inquiry</td>
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<td>Pharmacology 1</td>
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<td>PHAS 5033</td>
<td>Clinical Medicine 1</td>
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<td>Spring</td>
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<tr>
<td>PHAS 5000</td>
<td>Physician Assistant Policy and Practice</td>
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<tr>
<td>PHAS 5034</td>
<td>Clinical Medicine 2</td>
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<td>PHAS 6015</td>
<td>Clinical Skills 2</td>
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<td>Clinical Applications in Nutrition</td>
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<tr>
<td>PHAS 6014</td>
<td>Pharmacology 2</td>
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<tr>
<td>PHAS 6004</td>
<td>Preventative Medicine-Community Health</td>
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<tr>
<td>PHAS 5003</td>
<td>Behavioral Medicine</td>
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<tr>
<td>EMSP 6135</td>
<td>Advanced Cardiac Life Support</td>
</tr>
<tr>
<td>PHAS 5004</td>
<td>Clinical Applications</td>
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<td></td>
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<tr>
<td>Fall</td>
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<td>PHAS 6101</td>
<td>Supervised Clinical Practice 1</td>
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<td>PHAS 6102</td>
<td>Supervised Clinical Practice 2</td>
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<tr>
<td>PHAS 6103</td>
<td>Supervised Clinical Practice 3</td>
</tr>
</tbody>
</table>
### Master of Physician Assistant Studies Objectives/Program Outcomes

Students graduating from the PAS program will meet the technical standards, possess the required professional competencies and be able to perform the demands and tasks of the profession as noted below:

#### Observation and Sensation

The PA student will possess sufficient visual, auditory, and tactile sensation to receive appropriate information in the classroom, laboratory, and other educational and clinical settings. Sensation will be satisfactory to receive verbal and nonverbal communications from patients and others, and to perform inspection, auscultation and palpation techniques during the physical examination.

#### Communication

The PA student will be able to speak, hear, and observe patients, family members, and other clinicians. This includes expressive and receptive modes of verbal, nonverbal, and written communication. The student must have the ability to accurately assess receptive communication in order to make appropriate and timely responses. The student will be able to communicate attentively, effectively, and sensitively to others.

#### Motor Functions

Students will have sufficient strength and coordination to perform the activities required of a physician assistant. These include but are not limited to performing a physical examination utilizing diagnostic instruments and techniques in palpation and percussion. Students will have sufficient stamina to sit, stand, and move within classroom, laboratory, examination rooms, treatment rooms, and operating rooms for long periods of time. The student will have sufficient coordination to move about patient care environments, and sufficient dexterity to use common medical instruments. Students will be able to arrange for transportation between educational and clinical settings.

#### Intellectual Capability

Clinical problem solving and reasoning requires these intellectual abilities and encompass those to accurately measure, calculate, reason, analyze, integrate, learn, and retain information and make decisions in a timely manner. Students will be able to comprehend two and three-dimensional structures, and will be able to understand diagnostic testing and treatment regimens.

### Behavioral and Social Proficiency

Students will possess the ability to establish and maintain appropriate professional relationships. This includes the ability to prioritize competing demands, to function in stressful circumstances, to exercise good clinical judgment, to act ethically, to be compassionate, empathetic, responsible, and tolerant toward patients and others.

The following outlines examples of the demands and performance requirements required of the PA student.

#### Typical Mental Demands

The PA student will possess the ability to:
- Process, retain, comprehend, integrate, analyze, synthesize, and apply a large volume of data related to the art and science of medicine, including legal, ethical, and moral concepts
- Be present during long hours in the following settings: classrooms, laboratories, clinics, and self-directed study situations and environments
- Respond appropriately and timely responses to constructive faculty feedback
- Effectively use written and verbal communication skills
- Participate in educational activities that include tests, examinations, demonstrations, simulations, and presentations with frequent and exacting evaluations
- Demonstrate the ability to gather patient data and report, perform the physical examination, conduct patient assessment and evaluation, formulate a treatment patient, and perform patient education

#### Typical Physical Demands

The PA student will possess:
- Full range of body motion including assisting patient movement, manual and finger dexterity, and eye-hand coordination
- Physical capacity to stand and walk for extended hospital and clinic visits, and during frequent and prolonged patient and professional interactions
- Physical capacity to sit for long periods during classroom and laboratory experiences
- Capability to work in physically and mentally stressful situation with long and irregular hours and with exposures to communicable diseases and body fluids

#### Typical Working Conditions

The PA student will be able to:
- Work in clinical and classroom environments with exposure to frequent communicable diseases, toxic substances, ionizing radiation, medicinal preparations, hostile individuals, and other such conditions common to the medical and surgical environments
- Interact with a diverse patient populations of all ages with a range of acute and chronic medical and surgical conditions

### Student Performance Requirements

The PA student will be required to perform in the following situations:
- Medical, surgical, pediatric, obstetric/gynecologic, and other primary care medicine settings (inpatient and out-patient) at both campus and off-campus locations
• Didactic and clinical education and training
• Invasive and non-invasive procedures
• Pre-, intra-, and post-operative activities
• Emergency care

The PA Student will be required to:

• Demonstrate a professional ethical demeanor and understanding of medical ethics and medical-legal concepts
• Exhibit the capacity to work long hours (physical and mental stamina)
• Complete demanding didactic and clinical evaluations, examinations, etc.
• Perform at the level determined and required by the faculty
• Participate in community and/or professional service activities
• Complete other responsibilities and tasks as assigned or required

Master of Physician Assistant Studies Program Policies and Information

Auditing Courses
Students may be required to audit previously attempted courses as a requirement of remediation. Course instructors, academic or clinical coordinators, department committees, or the department chair set standards of performance.

Computer Requirement
Students are required to purchase a laptop computer from the Health Science Center Computer Store (http://ims.uthscsa.edu/computerstore/ compstore.aspx) upon matriculation. The cost of the purchase is calculated as a cost of attendance and is included in determination of financial aid eligibility.

Credit for Experimental Learning
All courses in the physician assistant curriculum must be completed. No course credit is given for experiential learning.

Program Costs
In addition to required tuition and fees, there are costs for textbooks, scrubs, and equipment. The full-time clinical fieldwork experiences included in the curriculum may require that students locate outside of San Antonio for the duration of the rotations. Fieldwork expenses will vary according to individual arrangements depending on the cost of travel, temporary housing, maintenance of local accommodations, etc. Students are encouraged to budget for major expenditures that could be associated with these assignments. Detailed information about program costs can be found on the Department of Physician Assistant Studies website.

Technical Standards
Applicants should review the PA Student Competencies and Technical Standards (http://www.uthscsa.edu/shp/pa) available at http://www.uthscsa.edu/shp/pa/Technical%20Standards%20of%20PA %20Students%202009.pdf

Physical Therapy

Physical therapists (PTs) are healthcare professionals who diagnose and treat individuals of all ages, from newborns to the very oldest, who have medical problems or other health-related conditions, illnesses, or injuries that limits their abilities to move and perform functional activities as well as they would like in their daily lives. Physical therapists examine each individual and develop a plan using treatment techniques to promote the ability to move, reduce pain, restore function, and prevent disability. In addition, PTs work with individuals to prevent the loss of mobility before it occurs by developing fitness and wellness-oriented programs for healthier and more active lifestyles.

Graduates of the DPT program are eligible to take the National Physical Therapy Examination, given by the Federation of State Boards of Physical Therapy, and the Jurisprudence Exam, given by the Texas Board of Physical Therapy Examiners. A license to practice physical therapy in Texas is contingent on successful completion of these examinations. The DPT program is accredited by the Commission on Accreditation in Physical Therapy (CAPTE), 1111 N. Fairfax Street, Alexandria, Virginia 22314.

Physical Therapy Admission Requirements

TRANSITIONAL DOCTOR OF PHYSICAL THERAPY
Applications for the Transitional DPT program are accepted between July 1 and November 1; applicants are advised to contact the Department of Physical Therapy for more information about admission to the program.

ENTRY-LEVEL DOCTOR OF PHYSICAL THERAPY
Applications for the Fall (July) entry-level DPT program are accepted between August 15 and November 1. The Texas Common Application is required for admission. A completed application, the application fee, official transcripts from each college or university attended, test scores and other supporting documents must be submitted to the Office of the Registrar by November 1. The completed application, official transcripts, and all supporting materials must be on file before the application can be processed. It is the applicant's responsibility to verify that all documents have been received before the application deadline.

A baccalaureate degree is not required for admission. Note that program prerequisites can be in progress at the time of application but must be completed by the end of the spring term prior to fall enrollment. Applicants without a baccalaureate degree must complete at least 90 semester credit hours of Core Curriculum, program prerequisites, and electives. At least 30 of these credit hours must be from a regionally accredited four-year university. In addition, students without a baccalaureate degree must have a minimum of 6 of these credit hours of junior or senior level courses in a subject area (e.g., biology, chemistry, history). Some courses that satisfy core curriculum requirements may also be used to satisfy program prerequisites.

DPT applicants without a bachelor's degree must complete the Texas Core Curriculum (42 hours):

• English Composition I & II, 6 hours
• College Algebra, 3 hours
• Biology I & II with labs, 8 hours
• Anatomy & Physiology I with lab, 4 hours
• Any philosophy, language, humanities, or English course, 3 hours
• Any arts, drama, or music course, 3 hours

Physical Therapy

Physical therapists (PTs) are healthcare professionals who diagnose and treat individuals of all ages, from newborns to the very oldest, who have medical problems or other health-related conditions, illnesses, or injuries
• History 1301 & 1302, 6 hours
• Government 2301 & 2302 or 2305 & 2306, 6 hours
• Intro to Psychology, 3 hours

All applicants must complete the program prerequisites (45 hours) and fulfill the requirements below:

• Human Anatomy II with lab, 4 hours
• Upper-level Biology with lab, 4 hours
• General Chemistry I & II with labs, 8 hours
• Physics I & II with labs, 8 hours
• Developmental Psychology, 3 hours
• Intro to Sociology, 3 hours
• Speech, 3 hours
• Medical Terminology, 1 hour
• Statistics (math or psychology), 3.0 hours
• Electives, 11 hours

• Overall grade point average (GPA) of at least 3.0 (on a 4.0 scale) and Science/Math GPA of at least 3.0
• Official transcripts from each college and university currently or previously attended. Applicants who are enrolled in college courses at the time of application should submit an official transcript showing courses in progress. An updated transcript must be submitted upon completion of the courses. Note: Transfer credits indicated on another school's transcript are not accepted in lieu of submitting the original institution record for that coursework. Transcripts from institutions outside the United States must be submitted in the original language and must be accompanied by a NACES Member evaluation agency English translation.
• Completion of the Texas Common Application
• Payment of the non-refundable application fee
• Submission of the Documentation of Experience form that demonstrates knowledge and understanding of physical therapy gained through a minimum of 50 hours observation, volunteering, or employment in a physical therapy setting
• Two letters of reference (at least one letter from a licensed physical therapist using the Reference Form), available at the Web site above
• Personal written statement addressing the applicant’s goal of becoming a physical therapist (one page typed, single space)
• Graduate Record Examination (GRE) scores must be submitted; used only for program development purposes, but not for making admissions decisions
• International Applicants only: Submit Test of English as a Foreign Language (TOEFL) scores; minimum scores 560 (paper) or 68 (Internet).

Physical Therapy Degree Requirements
ENTRY-LEVEL DOCTOR OF PHYSICAL THERAPY

The Doctor of Physical Therapy program (DPT) begins in the Fall (July) semester and consists of 100 semester credit hours of professional-level courses taken over 6 semesters (36 months). The program includes 30 weeks of full-time clinical affiliations and a 4-week specialty clinical internship.

TRANSACTIONAL DOCTOR OF PHYSICAL THERAPY

A Transitional Doctor of Physical Therapy (T-DPT) is also offered through the Department of Physical Therapy. The T-DPT program consists of 8 post-professional level courses taken over an 18 month period beginning in January. This is a self-supported program offered to currently practicing physical therapists who graduated with a Baccalaureate or Master’s Degree as their entry level, professional degree.

Physical Therapy Sample Plans of Study

Doctor of Physical Therapy Curriculum

First Year

<table>
<thead>
<tr>
<th>Fall</th>
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<tbody>
<tr>
<td>PHYT 7001</td>
<td>Clinical Foundations 1 4</td>
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<td>PHYT 7005</td>
<td>Therapeutic Exercise Science 4</td>
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<tr>
<td>PHYT 7009</td>
<td>Neuroscience 1 3</td>
</tr>
<tr>
<td>PHYT 7014</td>
<td>Systematic Reasoning and Scientific Investigation 1 3</td>
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<tr>
<td>PHYT 7017</td>
<td>Cells, Systems, and Disease 3</td>
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<td>PHYT 8022</td>
<td>Professional Issues and Clinical Decision-Making 1 2</td>
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<tr>
<td>CSBL 7014</td>
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Second Year

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<tr>
<td>PHYT 7018</td>
<td>Pharmacological Principles in Physical Therapy 2</td>
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<tr>
<td>PHYT 8002</td>
<td>Management of the Patient with Musculoskeletal Dysfunction 1 5</td>
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<td>PHYT 8007</td>
<td>Orthotics in Rehabilitation 1 5</td>
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<td>PHYT 8011</td>
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<td>PHYT 8108</td>
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<td>PHYT 8130</td>
<td>Movement Science 2 2</td>
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<td>PHYT 7021</td>
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Doctor of Physical Therapy Objectives/
Program Outcomes

Students graduating from the Department of Physical Therapy must meet the essential function requirements of the academic program and profession. They will complete programs consisting of academic study and clinical laboratory experience. The student will possess the skills and attributes necessary to perform as a professional before graduation from the program. These skills and attributes are known as essential functions and include the following:

General Abilities

To provide quality health care, the student will possess functional use of the senses of vision, touch, hearing, taste, and smell. All data received by the senses must be integrated, analyzed and synthesized in a consistent and accurate manner. In addition, the student will possess the ability to perceive pain, pressure, temperature, position, equilibrium, and movement.

Observational Ability

The student will participate in and observe demonstrations and experiments in the basic sciences including but not limited to physiologic and pharmacological demonstrations in animals, microbiologic cultures and microscopic study of organisms and tissues in normal and pathologic states. The student will observe the client accurately at a distance and close at hand to accurately assess health/illness alteration. The student will be able to obtain visual information from clients including but not limited to movement, posture, body mechanics, and gait patterns for the purpose of evaluation of movement dysfunction. Inherent in this observation process is the functional use of the senses and sufficient motor capability to carry out the necessary assessment activities.

Communication

The student will be able to effectively communicate verbally and non-verbally and to observe clients in order to elicit information, describe changes in mood, activity, and postures and to perceive non-verbal communications. The student will effectively communicate to other students, faculty, clients, peers, staff, and families to ask questions, explain conditions, and procedures, teach home programs, and to maintain safety in a timely manner within acceptable norms of clinical settings. The student will send and receive verbal communication in life threatening situations in a timely manner within acceptable norms of clinical settings. This requires the ability to read, write, and effectively utilize the English language. The student will be able to communicate effectively and sensitively with clients.

Motor Ability

The student will be able to perform gross and fine motor movements required to provide physical therapy and operate equipment to deliver care safely, in a timely manner appropriate for the problems identified and consistent with the acceptable norms of all clinical settings. Examples of movements the student will be able to perform include lifting, turning, transferring, transporting, and exercising the clients. The student will have the psychomotor skills necessary to perform or assist with procedures, treatments, administration of medication, managing of equipment, and emergency interventions. The student will be able to maintain consciousness and equilibrium at all times, and has the physical strength and stamina to perform satisfactorily in all clinical settings.

The student will have sufficient motor function to elicit information from patients by palpation, auscultation, percussion and other diagnostic maneuvers. The student will be able to do laboratory tests and work with scientific and other instruments and machinery utilized in the practice of physical therapy. The student will have motor skills necessary to administer emergency treatment such as CPR using the guidelines issued by the American Heart Association or the American Red Cross. Such actions require coordination of both fine and gross muscular movements, equilibrium and functional use of the senses of touch and vision.
**Critical Thinking Ability**

The student will have the ability to develop problem-solving skills. This includes the ability to measure, calculate, analyze and synthesize objective as well as subjective data and make decisions that reflect consistent and thoughtful deliberation and clinical judgment. In addition, the student will be able to comprehend three-dimensional relationships and understand the spatial relationships of structures.

**Interpersonal Abilities**

The student will have the emotional stability required to exercise sound judgment, complete assessment and intervention activities. The student will be able to establish rapport and maintain sensitive, interpersonal relationships with individuals, families and groups from a variety of social, emotional, cultural, and intellectual backgrounds. The student will have the flexibility to function effectively under stress. Concern for others, integrity, accountability, interest and motivations are necessary personal qualities.

**Behavioral and Social Attributes**

The student will possess the emotional health required for full utilization of his/her intellectual abilities, the exercise of good judgment, the prompt completion of all responsibilities attendant to the diagnosis and care of clients, and the development of mature, sensitive and effective relationships with clients. Students will be able to adapt to changing environments, to display flexibility and to learn to function in the face of uncertainties inherent in the clinical problems of many clients. Compassion, integrity, concern for others, interpersonal skills, interest and motivation are all personal qualities that the student will possess.

**Doctor of Physical Therapy Program Policies and Information**

**Advancement, Probation, and Dismissal**

Continuation as a Physical Therapy student is dependent on maintenance of a minimum cumulative grade point average of 3.0 (B) while enrolled in the program. A student whose cumulative grade point average falls below 3.0 will be subject to academic probation. While on probation, a student must maintain a B average in those courses for which he or she is registered or be considered for dismissal. A student who receives a grade of D or F in any semester may also be subject to dismissal.

The Department of Physical Therapy Student Progress Committee (SPC) may recommend dismissal, probation, repetition of the course when next offered, repetition of the year, or other actions as deemed appropriate. The student who has been dismissed may be readmitted for further study by petition from the SPC. The request will be approved or disapproved by the Dean. Under no circumstances will a student on probation be awarded a degree.

**Attendance for Academic Courses**

It is expected that students will attend all scheduled classes, laboratories, and clinical sessions. Excused absences may be granted in such cases as illness or personal emergency. With verification of an excused absence, required work that has been missed can be submitted. It is the responsibility of the student to notify the department if any absence occurs and to arrange with the faculty to make up work that is missed.

**Dropping Courses**

It is mandatory that the students adhere to the sequence of courses in the curriculum. Each course in the curriculum is built upon and is dependent upon a foundation established in a prior course. To drop a course, a student must seek permission from the course instructor and the Department Chair.

**Grades in Clinical Courses**

All clinical courses (i.e.: Clinical I, Clinical II, Clinical III, and Clinical Internship I) are graded S (Satisfactory) or U (Unsatisfactory). Clinical grades are not used in calculating the grade point average.

A grade of S is assigned if the student successfully satisfies the criteria for clinical courses. Failure to successfully satisfy the course criteria may result in one of the following grades:

- I (Incomplete) – Student performance is satisfactory on completed skills but below the minimum number required due to exceptional circumstances beyond student and/or clinic control.
- U (Unsatisfactory) – Student performance is below minimum requirement due to skill deficiency not related to exceptional circumstances or if the clinical is discontinued. A grade of U may also be assigned if the student demonstrates inappropriate behavior in the areas of professionalism or interpersonal skills. A grade of U may result in dismissal from the program.

Criteria and time frame for removal of I or U grades in clinical courses are determined based on clinical documentation and consultation with the clinical supervisor/clinical instructor. An I or U grade may require that the student complete an additional clinical affiliation or other remediation that could extend the professional curriculum beyond the expected graduation date. More than one U grade is not allowed within the total clinical course sequence.

**Program Costs**

In addition to required tuition and fees, there are costs for textbooks, scrubs, and equipment. The full-time clinical fieldwork experiences included in the curriculum may require that students locate outside of San Antonio for the duration of the rotations. Fieldwork expenses will vary according to individual arrangements depending on the cost of travel, temporary housing, maintenance of local accommodations, etc. Students are encouraged to budget for major expenditures that could be associated with these assignments. Detailed information about program costs can be found on the Department of Physical Therapy website.

**Bachelor of Science in Respiratory Care**

Respiratory Care, also known as respiratory therapy, is an exciting and challenging health profession responsible for providing care for patients with cardiopulmonary system deficiencies. There are a variety of opportunities to practice respiratory care in areas such as critical care, neonatal and pediatric intensive care units, cardiopulmonary diagnostics, and in alternate site care such as nursing homes, long term acute care hospitals, home care, pulmonary rehabilitation, polysomnography (sleep studies), and disease management.

The respiratory therapist works with diverse patients ranging from newborn and pediatric patients to adults and the elderly. Disease states or conditions often requiring respiratory care include asthma, emphysema,
chronic obstructive lung disease, pneumonia, cystic fibrosis, shock, trauma, and postoperative surgical care.

Graduates of the Respiratory Care program are awarded a Bachelor of Science in Respiratory Care degree and are eligible to sit for the national board examination for Entry Level Respirators and BLS, which is the entry-level to practice respiratory therapy, and the Registry Examinations for Advanced Respiratory Therapists (RRT), required for advanced-level respiratory therapy practice given by the National Board for Respiratory Care. Graduates are also eligible to take any specialty examinations such as the perinatal/pediatrics and pulmonary function technology examinations.

The Bachelor of Science in Respiratory Care program is accredited by the Commission on Accreditation for Respiratory Care (CoARC), 1248 Harwood Rd., Bedford, Texas 76021-4244, phone (817) 283-2835, fax (817) 354-8519.

The application deadline for fall (July) entry into the Respiratory Care program is April 15. The Texas Common Application is required for admission. A completed application, the application fee, official transcripts from each college or university attended, test scores, and other supporting documents must be submitted to the Office of the Registrar by April 15. The completed application, official transcripts, and all supporting materials must be on file before the application can be processed. It is the applicant's responsibility to verify that all documents have been received before the application deadline.

A maximum of 30 full-time students are admitted to the Respiratory Care program each year. Admission is on a competitive basis. In addition to non-academic factors that may be considered, the basis for inviting an applicant for an interview includes the applicant's academic performance represented by coursework grades, load, trends, and degree of difficulty.

Bachelor of Science in Respiratory Care Degree Requirements

Bachelor of Science in Respiratory Care

The Bachelor of Science in Respiratory Care degree requires a minimum of 125 semester credit hours, including the Texas Core Curriculum requirements, program prerequisites, respiratory care coursework, and clinical practice. The professional phase of the program, which consists of respiratory care coursework and clinical practice, is completed at the Health Science Center and affiliated clinical sites. The professional phase is approximately 23 months long and is dedicated to clinical and academic excellence. This includes approximately 1,000 hours of in-hospital clinical experiences. As a leadership program in respiratory care, the program is designed to provide graduates with the opportunity to gain the foundation needed to assume professional leadership roles in clinical practice, clinical specialty areas, research, education, and management.

Bachelor’s Degree Completion Program

Individuals that hold the Registered Respiratory Therapist (RRT) credential awarded by the National Board for Respiratory Care (NBRC) and are graduates of a regionally accredited and CoARC-accredited program are eligible to apply for the Bachelor’s Degree Completion Program.

Individuals holding the RRT credential may be eligible to receive up to 35 semester credit hours based on the RRT credential. Such individuals must enroll in and complete a minimum of 30 semester hours of coursework at the Health Science Center and must complete all Texas Core Curriculum courses before beginning the Bachelor’s Degree Completion Program.

To graduate from the RC program, a student must:

- Complete all required respiratory care pre-professional and professional courses with a grade of C or better
- Successfully complete the Entry Level CRT and RRT Examinations given by the National Board for Respiratory Care, or an equivalent departmental examination
- Successfully complete a comprehensive end-of-program competency assessment
- Hold current certification in Basic Life Support for the Healthcare Provider (BLS), Advanced Cardiac Life Support (ACLS) and Pediatric Advanced Life Support (PALS) and Neonatal Resuscitation Provider (NRP).

All applicants must complete the program prerequisites (18 hours) and requirements below:

- Any Anatomy & Physiology I & II with labs, 8 hours
- Microbiology, 3 hours
- Physics I with lab, 4 hours
- Statistics (math or psychology), 3 hours
- Sophomore standing or higher at the time of application (minimum of 60 hours)
- Overall GPA of 2.5 (on a 4.0 scale)
- Completion of the Texas Common Application

- Payment of the non-refundable application fee
- Submission of official transcripts from each college and university currently or previously attended. Applicants who are enrolled in college courses at the time of application should submit an official transcript showing courses in progress. An updated transcript must be submitted upon completion of the courses. Note: Transfer credits indicated on another school’s transcript are not accepted in lieu of submitting the original institution record for that coursework. Transcripts from institutions outside the United States must be submitted in the original language and must be accompanied by a NACES Members evaluation agency English translation.
- Personal interview with program faculty

International Applicants only: Submit Test of English as a Foreign Language (TOEFL) scores; minimum scores 560 (paper) or 68 (Internet).
Bachelor of Science in Respiratory Care
Sample Plans of Study

First Year

Fall

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<td>Respiratory Care Pharmacology</td>
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<td>RESC 3010</td>
<td>Cardiopulmonary Pathophysiology I</td>
<td>4</td>
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<td>RESC 3011</td>
<td>Patient Assessment</td>
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Spring

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<tr>
<td>RESC 3020</td>
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<td>RESC 3023</td>
<td>Pulmonary Function Testing</td>
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<td>RESC 3030</td>
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<tr>
<td>RESC 3031</td>
<td>Critical Respiratory Care Management</td>
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Second Year

Fall

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<td>RESC 4010</td>
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<td>RESC 4012</td>
<td>Disease Management, Rehabilitation, and Extended Care</td>
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<tr>
<td>RESC 4017</td>
<td>Introduction to Research</td>
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Spring

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<tr>
<td>RESC 4013</td>
<td>Leadership and Management in Respiratory Care</td>
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<td>RESC 4015</td>
<td>Education in Respiratory Care</td>
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<td>RESC 4029</td>
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<tr>
<td>RESC 4030</td>
<td>Research Practice and Principles</td>
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Total Credit Hours: 65.0

Respiratory Care Degree Completion Program Curriculum (online)

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<tr>
<td>RESC 4012</td>
<td>Disease Management, Rehabilitation, and Extended Care</td>
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<tr>
<td>RESC 4013</td>
<td>Leadership and Management in Respiratory Care</td>
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<td>RESC 4030</td>
<td>Research Practice and Principles</td>
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Total Credit Hours 31

Bachelor of Science in Respiratory Care
Objectives/Program Outcomes

Upon graduating from the Respiratory Care program, the student will possess the following abilities and competencies (adopted from the Competencies Needed by Graduate Respiratory Therapist in 2015 and Beyond. Respiratory Care Journal. May 2010. 55 (5) 602-607)

Evidence-Based Medicine & Respiratory Care Protocol Competencies

- Critique published research.
- Explain the meaning of general statistical tests.
- Apply evidence-based medicine to clinical practice.
- Explain the use of evidence-based medicine in the development and application of hospital-based RC protocols.
- Evaluate and treat patients in a variety of settings, using the appropriate respiratory care protocol.

Leadership Competencies

- Contribute to organizational teams as related to planning and collaborative decision making.
- Demonstrate effective written and verbal communications with various members of the healthcare team, patients, families, and other stakeholders to include cultural competence and literacy.
- Describe healthcare financial reimbursement systems and the need to reduce the cost of delivering healthcare.
- Lead care planning groups, bedside decision making, and collaboration with all healthcare professionals.

Diagnostic Competencies

- Perform spirometry to include coaching, recognition of improperly performed maneuvers, corrective actions and interpretation of test results.
- Compare and evaluate indications and contraindications for advance Pulmonary Function tests and recognize normal and abnormal results.
- Compare and evaluate the indications and contraindications for sleep studies and relate results to the types of respiratory sleep disorders.
- Determine the indications, contraindications, general hazards, and complications associated with bronchoscopy procedures and the role of the respiratory therapist.
- Monitor and evaluate the noninvasive monitoring devices associated with the patient’s clinical condition.
- Perform arterial puncture sampling, and analysis.

Chronic and Acute Disease-Management Competencies

- Describe the etiology, anatomy, pathophysiology, diagnosis, and treatment of cardiopulmonary diseases (e.g., asthma, COPD) and the accompanying comorbidities.
- Communicate and educate to empower and engage patients.
- Develop, administer, and reevaluate the care plan for chronic disease management.
- Develop and manage care plans in the acute-care setting, using evidence-based medicine, protocols, and clinical practice guidelines.
Emergency Care Competencies

- Maintain current certifications and perform basic life support, advanced cardiovascular life support, pediatric advanced life support and neonatal resuscitation in appropriate clinical settings according to the guidelines.
- Perform endotracheal intubation.
- Perform as a member of the rapid response team (RRT).
- Participate in mass-casualty staffing to provide airway management, manual and mechanical ventilatory life support, medical gas administration, aerosol delivery of bronchodilators and other agents in the resuscitation of respiratory and cardiovascular failure.
- Provide intra-hospital transport of critically and chronically ill patients and provide cardiopulmonary life support and airway control during transport.
- Recommend emergency pharmacotherapy in clinical settings.

Critical Care Competencies

- Effectively demonstrate practice and analysis on all invasive and noninvasive mechanical ventilators.
- Interpret ventilator and hemodynamic monitoring data and be able to calibrate these monitoring devices.
- Manage airway devices and the airway monitoring systems.
- Make recommendations for treatment based on waveform graphics, pulmonary mechanics, and related imaging studies.
- Evaluate and treat using therapeutic medical gases for critically ill patients.
- Apply circulatory gas-exchange systems in respiratory care practice (e.g., ECMO).
- Participate in collaborative care management based on evidence-based protocols.
- Deliver therapeutic interventions based on protocol.
- Integrate the delivery of basic and advanced therapeutics in conjunction with the mechanical ventilator in the care of critically ill patients.
- Make recommendations and provide treatment to critically ill patients based on pathophysiology.
- Recommend cardiovascular agents based on pharmacologic actions.
- Use electronic medical record data systems in respiratory care practice.

Patient Assessment Competencies

- Complete patient assessment through physical examination, chart review, and share the information with the healthcare team members.
- Obtain medical, surgical, and family history social, behavioral, occupational, and other historical information related to the patient’s current complaint.
- Review and interpret pulmonary function studies to include spirometry, lung volumes and diffusion studies.
- Review and interpret arterial blood gas results, electrolytes, CBC, and related laboratory tests
- Inspect the chest and extremities to detect deformation, cyanosis, edema, clubbing, and other anomalies.
- Measure and document vital signs correctly under all conditions (e.g. blood pressure, heart rate, respiratory rate and oxygen saturation).
- Evaluate the patient’s breathing effort, ventilatory pattern, and use of accessory muscles.

Therapeutic Competencies

- Assess the need, administer, and evaluate respiratory therapies in all patient settings prior to, during, and after therapy.

Therapeutic Applications Competencies

- Assess, administer, evaluate and trouble shoot:
  - all medical gas delivery systems
  - all humidity therapy systems
  - all aerosol delivery systems
  - all hyperinflation systems
  - airway management skills
  - all mechanical ventilation

Bachelor of Science in Respiratory Care

Program Policies and Information

Computer Requirement

Respiratory care students are required to purchase a laptop computer from the Health Science Center Computer Store on matriculation. The cost of the computer is calculated into program costs, and eligible students may receive financial aid to purchase the computer. Students are expected to have high-speed Internet access.

Program Costs

In addition to required tuition and fees, there are costs for textbooks, scrubs, and equipment. The clinical rotations and the specialization/internship experiences included in the curriculum may require that students travel outside of San Antonio. Clinical rotation expenses will vary according to individual arrangements and depending on the cost of travel, temporary housing, maintenance of local accommodations, etc. Students are encouraged to budget for major expenditures that could be associated with these course experiences. Detailed information about program costs can be found on the Department of Respiratory Care website.
School of Medicine

At the time of this publication, the medical school curriculum is in the midst of reform and processes, procedures, and policies are under review to ensure congruence in the medical education program. Necessary revisions will be communicated with all parties via official School of Medicine (SOM) channels. The SOM continuous programmatic and curricular evaluation system, under the direction of the Curriculum Committee, may recommend and implement changes prior to the next publication cycle, when in the interest of accreditation compliance and student success, change is deemed necessary.

Mission Statement

The mission of the UT School of Medicine at San Antonio is to provide responsive and comprehensive education, research and service of the highest quality in order to meet the health-related needs of the citizens of Texas. In all aspects of fulfilling this mission, the School of Medicine is committed to fostering the broadest diversity and inclusion that ensures successful achievement of the institutional priorities to:

• Cultivate a pervasive, adaptive and respectful environment promoting diversity, inclusion, equity, professionalism, humanism and opportunity.
• Provide exemplary medical education and training to a diverse body of health care professionals at all levels while fostering a commitment to scholarship, leadership and life-long learning across the educational continuum.
• Build and sustain recognized leadership, and advance scholarship excellence across the biomedical and health-related research spectrum.
• Deliver exemplary and compassionate health care to enhance every patient’s quality of life.
• Serve as a responsive resource to address community health needs whether local or global.
• Attain health equity for the diverse patient population of South Texas.

Accreditation

The UT School of Medicine at San Antonio is fully accredited by the Liaison Committee on Medical Education (LCME), the nationally recognized body for the accreditation of medical education programs leading to the Doctor of Medicine degree in the United States.

Student Diversity

The UT School of Medicine at San Antonio (SOM) offers programs that create and sustain a spirit of diversity and inclusion that will further shape undergraduate medical education by fostering an environment of cultural competency, sensitivity and awareness. All student diversity efforts are fundamentally and comprehensively rooted in intellectual vitality and cross-cultural understanding that allow our student physicians to embrace and celebrate unique perspectives and life experiences that enrich students, faculty and staff in the SOM. Attention to cultural competence and cultural sensitivity throughout medical education both in and out of the classroom has the potential to alleviate or at least ameliorate systemic disparities in access to and quality of health care. All members of the SOM uphold the principles of the SOM Diversity Policy below.

Policies and Regulations

SOM Diversity Policy

Based on the growing body of evidence that inclusion of all factors that expand diversity in perspective and action adds to the richness of an academic community and is essential to building and sustaining leadership in academic medicine, and eminence in advancing health and health care, the SOM has established and strives to uphold its Diversity Policy, as follows:

To demonstrate its commitment to diversity and inclusion, it is the SOM policy to...

• Cultivate and intrain throughout the academic environment a culture that values and respects diversity, thereby demonstrating the profound belief that diversity and inclusion add unique, enduring and motivating value to the pursuit and achievement of each part of the SOM mission
• Support the appointment of Dean(s) and Office(s) for Diversity to address faculty and student diversity and inclusion across all employee and trainee needs in conjunction with institutional leadership and policy guidance
• Support a Diversity Committee, representing faculty, staff, students and trainees; advisory to the Dean of the SOM and the Medical Faculty Assembly
• Maintain representation to the AAMC Group on Diversity and Inclusion, AAMC Group on Faculty Affairs, the AAMC Group on Women in Medicine and Science, and work with the representation from related AAMC entities
• Employ continuous quality improvement methods to assess SOM diversity and inclusion needs over time in order to insure delineation of those specific group whose members the institution seeks to enroll in its student body and trainee classes as well as employ among its faculty and staff because those specific groups are the source of ‘added value’ for all participants in our SOM learning environments. Devise and employ a responsive diversity action plan, including feasibility and anticipated outcomes
• Uphold all equity policies and practices for faculty recruitment and non-discrimination, and employ best practices for insuring broad outreach and conducting inclusive searches. Follow the standards detailed in the institution’s Resource Guide for Faculty and Executive Committee Recruitment
• Uphold all equity policies and practices for faculty retention, professional development, advancement, and transitions across the faculty career ‘life-span,’ incorporating best practices to provide effective mentoring and a respectful, inclusive and supportive environment
• Establish valid and reliable metrics to gauge diversity accomplishments; ensure accuracy of required reports and other data management
• Uphold all UTHSCSA EEO/AA and Human Resources’ policies and practices for non-discrimination in recruitment and employment of any administrative and professional employee, classified staff and other employees, as well as trainees

SOM Diversity Definitions

Through extensive collaboration and deliberation, the Group on Diversity and Inclusion of the AAMC established the below-listed definitions of Diversity, Inclusion and Health Equity, which have become operable formal definitions at our SOM.
In regard to our own faculty, as well as for students and staff, the SOM values diversity that entails mindfulness across the spectrum of human differences, yet is specific to those characteristics that will best serve the needs of South Texas when accomplishing the SOM mission of excellence in teaching, research, service and community engagement.

Diversity

- Diversity as a core value embodies inclusiveness, mutual respect, and multiple perspectives and serves as a catalyst for change resulting in health equity. In this context, we are mindful of all aspects of human differences such as socioeconomic status, race, ethnicity, language, nationality, sex, gender identity, sexual orientation, religion, geography, disability and age.

Inclusion

- Inclusion is a core element for successfully achieving diversity. Inclusion is achieved by nurturing the climate and culture of the institution through professional development, education, policy, and practice. The objective is creating a climate that fosters belonging, respect, and value for all and encourages engagement and connection throughout the institution and community.

Health Equity

- Health equity is when everyone has the opportunity to attain his/her full health potential and no one is disadvantaged from achieving this potential because of his/her social position or other socially determined circumstance.

Doctor of Medicine (M.D.)

Brief History

In April 1959 Texas Governor Price Daniel signed House Bill 9 to establish the South Texas Medical School, the first component of the institution that would soon become the UT Health Science Center at San Antonio. In July 1968 the medical school, now known as The UT School of Medicine at San Antonio (SOM), and the Bexar County Teaching Hospital, now known as University Hospital, were dedicated. Thirty-three medical students graduated with the Doctor of Medicine degree in the first medical school commencement in June 1970. In 1998 the Texas State Legislature authorized the creation of the Regional Academic Health Center (RAHC) in the Lower Rio Grande Valley, which was administered by the SOM, and in June 2002 the RAHC opened its doors to train medical students and residents. Today there are nearly 900 medical students receiving their education at the SOM.

Mission Statement

The mission of the UT School of Medicine at San Antonio is to provide responsive and comprehensive education, research and service of the highest quality in order to meet the health-related needs of the citizens of Texas. In all aspects of fulfilling this mission, the School of Medicine is committed to fostering the broadest diversity and inclusion that ensures successful achievement of the institutional priorities to:

- Cultivate a pervasive, adaptive and respectful environment promoting diversity, inclusion, equity, professionalism, humanism and opportunity.

- Provide exemplary medical education and training to a diverse body of health career professionals at all levels while fostering a commitment to scholarship, leadership and life-long learning across the educational continuum.

- Build and sustain recognized leadership, and advance scholarship excellence across the biomedical and health-related research spectrum.

- Deliver exemplary and compassionate health care to enhance every patient’s quality of life.

- Serve as a responsive resource to address community health needs whether local or global.

- Attain health equity for the diverse patient population of South Texas.

Accreditation

The UT School of Medicine at San Antonio is fully accredited by the Liaison Committee on Medical Education (LCME), the nationally recognized body for the accreditation of medical education programs leading to the Doctor of Medicine degree in the United States.

Doctor of Medicine (M.D.) Admissions Requirements

Information about specific admission requirements is detailed online under Admissions at the UT School of Medicine at San Antonio website. Applicants must have at least 90 semester hour credits from a United States or Canadian college or university with no grade lower than a C in required course work (see http://som.uthscsa.edu/Admissions/prerequisites.asp). Applicants must take the Medical College Admissions Test (MCAT) no later than the first week of September the year preceding anticipated matriculation. Web-based applications are available through the Texas Medical and Dental Schools Application Service (http://www.utsystem.edu/tmdsas) in Austin. Starting with the entering class of 2014, applicants will be able to apply to both the San Antonio Clinical Education Campus and the South Texas Clinical Education Campus through the TMDAS website. MCAT scores should be forwarded no later than October 15 of the year preceding matriculation. All MCAT scores must be reported to the TMDAS through the AAMC. MCAT scores are not automatically forwarded to TMDAS. Applicants must release their MCAT scores to TMDAS as soon as they are known to the applicant. Scores from later administrations of the MCAT may be considered for purposes of selecting students from the alternate pool.

Acceptance Considerations

The Admissions Committee evaluates each candidate’s application to make an assessment of the individual’s academic background, performance on the MCAT, the recommendation of the premedical advisor, and the nonacademic achievements. Preparation for medical school as reflected in clinical experiences and demonstration of integrity, maturity, motivation, judgment, and resourcefulness are also evaluated. Further evaluation of the most promising candidates is made by means of personal interviews, invitations for which are issued by the Admissions Committee. Only applicants who are permanent U.S. residents or American citizens will be considered for interview and acceptance. The same criteria for evaluation are applied to all candidates. Applicants are encouraged to read the Factors Considered for Applicant Interview and Acceptance (http://SOM.uthscsa.edu/admissions). Although certain disabilities or combination of disabilities might prevent a candidate...
from meeting required technical standards, this institution is committed
to avoiding discrimination against an otherwise qualified individual
with disabilities (see Essential Abilities for Completion of the Medical
Curriculum (http://SOM.uthscsa.edu/Admissions/essentialabilities.asp)).
The UT School of Medicine at San Antonio will announce its initial
acceptances on November 15. Acceptances will continue on a rolling
basis until December 31. Those interviewed applicants not accepted
may be offered positions in the entering class through the TMDAS medical
school match, the results of which are available on February 1. Candidates
whose applications are rejected by the Admissions Committee with or
without personal interviews shall be notified as soon as possible after the
committee’s action. An applicant receiving an acceptance of admission will
be requested to file a letter of intent to enroll within two weeks of receipt
of acceptance. The acceptance is contingent upon clearance through a
criminal background check (see Student Background Check Policy) and
satisfying all coursework prerequisites.

Because some of the medical schools in Texas begin their academic year
earlier than September, all LCME-accredited medical schools in Texas
have agreed not to offer acceptances to candidates already enrolled at
another medical school in the state after July 1.

Essential Abilities for Completion of the
Medical Curriculum

Essential abilities are academic performance requirements that refer to
those physical, cognitive, and behavioral abilities required for satisfactory
completion of all aspects of the medical curriculum and the development of
personal attributes required by the student at graduation.

The essential abilities required by the curriculum are in the following areas:
intellectual (conceptual, integrative, and quantitative abilities for problem
solving and diagnosis), behavioral and social, communication, motor, and
sensory. These essential abilities are represented by the SOM’s three
educational competencies: altruism, knowledge, and skills.

In addition, the medical student must demonstrate ethical standards and a
professional demeanor in dealing with peers, faculty, staff, and patients.

Intellectual Abilities (Knowledge)
The medical student must be able to comprehend and learn factual
knowledge from readings and didactic presentations, gather information
independently, analyze and synthesize learned material, and apply
information to clinical situations.

Behavioral, Social, and Professional Abilities
(Altruism)
The medical student must possess the emotional maturity and stability
to function effectively under the stress that is inherent in medicine
and to adapt to circumstances that are unpredictable or that change
rapidly. He or she must exhibit compassion, empathy, altruism, integrity,
responsibility, and tolerance, as well as demonstrate the ability to exercise
the requisite judgment in the practice of medicine.

Communication Skills (Skills)
The medical student must be able to communicate effectively with
patients orally and in writing, including gathering information appropriately;
explaining medical information in a patient-centered manner; listening
effectively; recognizing, acknowledging, and responding to emotions; and
exhibiting sensitivity to social and cultural differences. He or she must
be able to communicate effectively and work cooperatively with all other
health care team members.

Motor Skills (Skills)
The medical student must have sufficient physical dexterity to master
technical and procedural aspects of patient care. He or she must have
sufficient strength to perform the essential duties and must have adequate
physical stamina and energy to carry out taxing duties over long hours.

Sensory Abilities (Skills)
The medical student should have sufficient sensory abilities of sight,
hearing, smell, and touch in order to obtain a medical history, perform a
physical examination, and to diagnose and deliver patient care.

Facilitated Acceptance to Medical Education
(FAME) Program

As a result of the UT System Transformation in Medical Education (TIME)
initiative, the UT at San Antonio (UTSA) and UT School of Medicine at
San Antonio (SOM), have partnered to create the Facilitated Acceptance
to Medical Education (FAME) Program. The FAME Program is an
educationally innovative dual degree (B.S./M.D.) program designed to train
and graduate primary care physicians. To meet degree requirements set
for all college graduates in Texas, core courses have been interwoven into
a collaborative seven-year curriculum. This shared project uses traditional
lectures, small group sessions, team taught courses, and innovative
seminars structured on disease-related experiences. The FAME Program
recruits and admits highly qualified students. These students benefit
from an accelerated degree program, an innovative curriculum, early
immersion into medical education and professional identity formation, and
a decreased overall student debt. The FAME Program will play a positive
role in helping address the healthcare needs of Texas.

To apply for the FAME Program, student will apply to UTSA online at
applytexas.org and complete the UTSA and FAME application process.
Applications for the FAME Program will be accepted August 15 –
December 1, and invited interviews will be held in January and February of
each academic year.

Once accepted in the FAME program the student must:

• Achieve a minimum overall GPA of 3.5 and a minimum science GPA of
  3.5 in pre-determined course work
• Complete a minimum of 12 hours per semester at UTSA
• Complete a minimum of 72 hours within 3 years at UTSA
• Meet with his/her FAME Program coordinator every semester for
  academic and career advising
• Take the Medical College Admissions Test (MCAT) at the program-
designated time during the third year at UTSA. Students scoring less
than a 10 on Biological and Biochemical Foundations of Living Systems
will be required to complete additional biology coursework which may
extend time on the undergraduate campus.
• Demonstrate satisfactory performance on all UT System TIME initiative
  competencies in the areas of:
  • Communication Skills and Collaboration
  • Professionalism
  • Medical Knowledge and Scholarship
  • Patient Care
  • Practice-based Learning and Improvement
  • Systems-based Practice and Management
Students who fulfill all program requirements will be guaranteed admission to the SOM. Upon successful completion of the first year of the SOM curriculum with minimum course grades of “C,” a Bachelor of Science in Biology from UTSA will be awarded.

Upon successful completion of SOM curriculum, a Doctor of Medicine (M.D.) degree will be awarded.

**Dual Degree Programs**

Dual degree programs of study provide a mechanism for a medical student to obtain a Master’s in Public Health (M.P.H) or a Doctor of Philosophy (Ph.D.) degree in addition to a Doctor of Medicine (M.D.) degree at The UT Health Science Center at San Antonio. The purpose of these programs is to offer students the opportunity to become trained as clinical scientists who have not only depth of knowledge in clinical medicine but also experience in research planning and execution.

**M.D./Ph.D. Program**

The goals of the M.D./Ph.D. Program are:

- to prepare physician-scientists to become accomplished health care providers and investigators with problem-solving knowledge and skills
- to train physician-scientists in the conduct of clinical and translational research in culturally diverse settings
- to develop future leaders in academic health care and biomedical research

To apply for the M.D./Ph.D. program, applicants must use the American Medical College Application Service (AMCAS) website. Applicants who seek the M.D. program at UT School of Medicine at San Antonio (SOM) must use the TMDSAS application system. The deadlines for these applications vary.

The M.D./Ph.D. Program is seven to eight years in length. Students usually begin with two years of the curriculum in the SOM. After successful completion of the USMLE Step 1, they enter a three to four year Ph.D. program in the Graduate School of Biomedical Sciences (GSBS), following which they return to the SOM for two years of clinical rotations. With the guidance and approval of the M.D./Ph.D. Program Director and M.D./Ph.D. Program Advisory Committee, students select laboratory rotations, graduate program affiliation in one of many tracks, and Supervising Professors from a list of distinguished graduate faculty throughout the institution. Enrichment activities include a monthly “Bench-to-Bedside” course, and a 6-week clinical refresher course to provide smooth transition from graduate school into the remaining clinical years. Opportunities exist for student research during the fourth year of medical school. With completion of this program, M.D./Ph.D. graduates are well prepared for careers as dual-degree physician-scientists.

The GSBS provides oversight for M.D./Ph.D. students via the Committees on Graduate Students (COGS) and the Graduate Faculty Council. The COGS is responsible for supervising the didactic curriculum, and the academic and research progress of M.D./Ph.D. students enrolled in their respective tracks. COGS is responsible for assuring that meetings of the student’s dissertation research supervising committee are held to monitor student progress, for approval of the dissertation proposal, and for final approval of the written dissertation and oral defense.

An independent M.D./Ph.D. Program Promotions Board reviews the progress of M.D./Ph.D. students every 6 months throughout medical and graduate school enrollment. Progress is assessed on the basis of academic performance, USMLE Step 1 and 2 scores, research rotation reports, research and scholarly activities, evaluations from the Supervising Professor (during Ph.D. portion), and student self-assessments (during Ph.D. portion).

The M.D./Ph.D. Program expects students who are pursuing the dual degree to maintain standards of academic excellence, to progress in a timely fashion toward both the M.D. and Ph.D. degrees, and to maintain professionalism. Students will be primarily subject to the academic guidelines of the medical school or graduate school in which they are primarily engaged at each stage of the M.D./Ph.D. Program. However, they will be subject to additional requirements as specified by the M.D./Ph.D. Program in order to remain members of that program.

Students in the M.D./Ph.D. Program are subject to satisfactory achievement of a series of milestones and criteria established by the M.D./Ph.D. Program Advisory Committee. Failure to meet or achieve the established standards will result in denial of advancement and dismissal from the M.D./Ph.D. Program. A student’s academic standing with respect to either the medical school or the graduate school is administered through the appropriate dean’s office. M.D./Ph.D. students shall have the right to appeal a decision of dismissal from the program. The appeal will be heard by the M.D./Ph.D. Program Advisory Committee. Solely on procedural concerns can a student appeal to a higher institutional administration.

**M.D./M.P.H. Program**

The M.D./M.P.H. Program prepares physicians to treat individuals and populations via training in biostatistics, epidemiology, behavioral science, public policy, and environmental health. This program allows for students to accomplish the M.D. and the M.P.H. in four years; however, students may decide to take 5 years to complete both degrees. Candidates must first be accepted to the SOM and then apply to the School of Public Health at the UT Health Science Center-Houston. If accepted into the dual degree program, students will begin coursework for the M.P.H. with online courses in the summer before starting medical school. The M.P.H. requires completion of 46 credit hours, some of which will be shared with the SOM credit hours.

**M.D. with Distinction Degrees**

**M.D. Degree with Distinction in Research**

The M.D. with Distinction in Research Program provides medical students with an opportunity to enrich their medical school career through sustained work in basic, clinical, translational or social sciences. This program exposes students to life as a physician-scientist. The distinction helps students shape their career goals by building an academic track record viewed favorably by residency selection committees. Students must apply for the M.D. with Distinction in Research Program before the start of the third year. M.D./Ph.D. students are not eligible to apply. Under the supervision of their research mentor, students engage in a research project culminating in a manuscript suitable for submission to a peer-reviewed medical journal. The application includes a project description, a timeline for project completion and a mentoring plan by the faculty mentor. Students commit a minimum of four months (640 hours) during medical school to the program. Students must present a poster at an annual UTHSCSA Student Research Day. Additional requirements for completion of the program include maintaining a research log and maintaining a minimum 3.25 grade point average through medical school. If the M.D. with Distinction in Research Committee deems the submission appropriate, and the student has completed all administrative requirements, he/she will be awarded the M.D. degree with Distinction in Research.
M.D. Degree with Distinction in Medical Education

The M.D. with Distinction in Medical Education Program provides medical students with an opportunity to spend part of their medical school career participating in activities focused on different components of teaching and educational research. The application for the M.D. with Distinction in Medical Education Program must be submitted by January 15th of the second year. The application includes a project description, a timeline for project completion and a mentoring plan by the faculty mentor. Requirements for completion of the program include working as a teaching assistant for a current course or preparation course, giving learning sessions to assess teaching style, presenting the project to the M.D. with Distinction in Medical Education Advisory Committee and submitting the project for publication to a medical educational journal or for presentation at a medical educational conference. An additional requirement includes maintaining a minimum 3.25 grade point average throughout the program. If the M.D. with Distinction in Medical Education Advisory Committee deems the project submission appropriate, and the student has completed all administrative requirements, he/she will be awarded the M.D. degree with Distinction in Medical Education.

Doctor of Medicine (M.D.) Curriculum

Curriculum

The acronym CIRCLE (Curricular Integration, Researchers, Clinicians, Leaders, Educators) represents the integrated four-year medical school education program which is described briefly below.

Pre-Clinical Curriculum (“Year 1-2”)

The foundational 20 month curriculum is taught in ten sequential learning modules (nine organ systems) and two longitudinal modules (language of medicine and clinical skills training). Within each module there is progression of knowledge in a systematic fashion as follows: normal structure and function, pathogenesis and pathophysiology of the condition or disorder, clinical manifestations of the condition or disorder, pharmacotherapeutic interventions for the condition or disorder, clinical and translational research and evidence-based medicine approach for the condition or disorder, epidemiology or prevention of the condition or disorder, and interpretation of diagnostic tests. Each module has a weekly thematic content which is synthesized via a small group interactive patient case.

Learning Modules

1. Medicine, Behavior, and Society (http://youtu.be/ooaopZKx2qM)
2. Molecules to Medicine (http://som.uthscsa.edu/ume/documents/MoleculesToMed.pdf)
5. Respiratory Health (http://som.uthscsa.edu/ume/documents/RESPmoduleposter3-12.pdf)
8. Endocrine/Reproductive (http://som.uthscsa.edu/ume/documents/EndoRepro.pdf)
10. Musculoskeletal and Dermatology (http://som.uthscsa.edu/ume/documents/Musculoskeletal&Derm12.pdf)

Longitudinal Modules

2. Language of Medicine (http://som.uthscsa.edu/ume/documents/LanguageMedicine12.pdf)

Clinical Curriculum (“Year 3”)

The third year curriculum is “guided by the contemporary content from and the clinical experiences associated with the disciplines and related subspecialties that have traditionally been titled family medicine, internal medicine, obstetrics and gynecology, pediatrics, psychiatry, and surgery” (Liaison Committee on Medical Education Standards 2011). In the 2013-14 academic year, students will rotate in 6 week blocks for family medicine, obstetrics and gynecology, pediatrics, psychiatry and in 10 week blocks for internal medicine and surgery, assuming increasing patient care responsibility commensurate with achievement of specific milestones and competencies defined by the Curriculum Committee. The introduction of third year elective experiences will allow students to explore other specialties and subspecialties or engage in research before fourth year while still consolidating core knowledge and skills. Clerkships can be completed in San Antonio, the Regional Academic Health Center, McAllen and/or Edinburgh depending on the medical student’s selection.

Beginning with the 2014-15 academic year, students will rotate in 6-week blocks for family medicine, obstetrics and gynecology, pediatrics, psychiatry and in 8-week blocks for internal medicine and surgery. There will be the addition of 4 week blocks of core clerkships in emergency medicine and neurology. A longitudinal educational experience will be woven through the entire academic year to address curricular items that are common to all clerkships. The longitudinal block of time will provide a venue for introduction of interprofessional experiences with other health care professionals on campus, further integration of basic and clinical sciences, cultural competencies, patient safety and quality improvement, health economics and policy, and incorporation of cutting edge technology such as basics of ultrasonography. Shortened experiences in some mandatory core clerkships will allow flexibility in the schedule for students to customize an educational plan to suit their long term career goals.

Year 3, 2013-2014

Clinical Curriculum (“Year 4”)

The fourth year curriculum exposes students to additional medical specializations and/or allows the student to return to a core specialty with advanced duties and responsibilities. The schedule includes 8 weeks of electives (inpatient and ambulatory care rotations), 18 weeks of electives, and 5 weeks of didactics. During the year, ample time is allotted for students to travel or residency interviews.
# Doctor of Medicine (M.D.) Sample Plans of Study:

The tables below represent courses the students will take in their pre-clinical and clinical years.

## Year 1

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIRC 5001</td>
<td>Medicine, Behavior &amp; Society</td>
<td>6</td>
</tr>
<tr>
<td>CIRC 5003</td>
<td>Language of Medicine Longitudinal Module</td>
<td>5.4</td>
</tr>
<tr>
<td>CIRC 5005</td>
<td>Clinical Skills Longitudinal Module</td>
<td>14.75</td>
</tr>
<tr>
<td>CIRC 5007</td>
<td>Fundamentals: Molecules to Medicine</td>
<td>9</td>
</tr>
<tr>
<td>CIRC 5009</td>
<td>Attack and Defense</td>
<td>9</td>
</tr>
<tr>
<td>CIRC 5011</td>
<td>Circulation</td>
<td>5</td>
</tr>
<tr>
<td>CIRC 5013</td>
<td>Respiratory Health</td>
<td>4</td>
</tr>
<tr>
<td>CIRC 5015</td>
<td>Renal and Male Reproductive</td>
<td>5</td>
</tr>
<tr>
<td>CIRC 5017</td>
<td>Hematology</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Credit Hours: 40.4

## Year 2

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIRC 5001</td>
<td>Medicine, Behavior &amp; Society (continued from Year 1)</td>
<td>6</td>
</tr>
<tr>
<td>CIRC 5005</td>
<td>Clinical Skills Longitudinal Module (continued from Year 1)</td>
<td>14.75</td>
</tr>
<tr>
<td>CIRC 6007</td>
<td>Mind, Brain and Behavior</td>
<td>9</td>
</tr>
<tr>
<td>CIRC 6009</td>
<td>Endocrine &amp; Female Reproductive</td>
<td>7</td>
</tr>
<tr>
<td>CIRC 6011</td>
<td>Digestive Health and Nutrition</td>
<td>7</td>
</tr>
<tr>
<td>CIRC 6013</td>
<td>Musculoskeletal and Dermatology</td>
<td>7.5</td>
</tr>
</tbody>
</table>

Total Credit Hours: 51.25

## Year 3

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>INTD 3030</td>
<td>Clinical Foundations</td>
<td>3</td>
</tr>
<tr>
<td>SURG 3005</td>
<td>Surgery Clerkship</td>
<td>14</td>
</tr>
<tr>
<td>MEDI 3105</td>
<td>Medicine Clerkship</td>
<td>14</td>
</tr>
<tr>
<td>OBGY 3005</td>
<td>Obstetric/Gynecology Clerkship</td>
<td>7</td>
</tr>
<tr>
<td>PSYC 3005</td>
<td>Psychiatry Clerkship</td>
<td>7</td>
</tr>
<tr>
<td>PEDI 3005</td>
<td>Pediatrics Clerkship</td>
<td>7</td>
</tr>
<tr>
<td>FAPR 3005</td>
<td>Family Medicine Clerkship</td>
<td>7</td>
</tr>
<tr>
<td>1 Four-Week Elective</td>
<td></td>
<td>4</td>
</tr>
</tbody>
</table>

Total Credit Hours: 63

## Year 4

<table>
<thead>
<tr>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Four-Week Selective (Inpatient Service)</td>
<td>4</td>
</tr>
<tr>
<td>1 Four-Week Selective (Ambulatory Care)</td>
<td>4</td>
</tr>
<tr>
<td>18 Weeks of Electives</td>
<td>18</td>
</tr>
<tr>
<td>5 Weeks of Didactics</td>
<td>4</td>
</tr>
</tbody>
</table>

Total Credit Hours: 30

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# Doctor of Medicine (M.D.) Policies

## Student Background Check Policy

### I. Applicability

This policy applies to applicants who have received an offer of admission to or current students not checked on admission and anticipating clinical assignments. Visiting students assigned placements in an affiliated clinical facility are also subject to the policy.

### II. Policy

Applicants who have received an offer of admission must submit to and satisfactorily complete a background check review as a condition to matriculation to the UT School of Medicine at San Antonio (SOM). An offer of admission will not be final until the completion of the criminal background check(s) with results deemed satisfactory. Admission may be denied or rescinded based on a review of the criminal background check.

Additionally, students who are currently enrolled and who do not have a valid criminal background check must submit to, and satisfactorily complete, a background check review as a condition to enrolling or participating in education experiences at affiliated clinical sites as required. Students who return from a leave of absence may also require a criminal background check. Students who refuse to submit to a criminal background check or do not pass the criminal background check review may be dismissed from the program.

### III. Rationale

1. Health care providers are entrusted with the health, safety, and welfare of patients, have access to controlled substances and confidential information, and operate in settings that require the exercise of good judgment and ethical behavior. Thus, an assessment of an applicant’s or current student’s suitability to function in these settings is imperative to promote the highest level of integrity in health care services.

2. Clinical facilities are increasingly required by accreditation agencies, such as the Joint Commission (http://www.jointcommission.org) Healthcare Organization, to conduct background checks for security purposes on individuals who provide services within the facility and especially those who supervise care and render treatment. To facilitate this requirement, educational institutions have agreed to conduct these background checks for students and faculty.

3. Clinical rotations are an essential component of the medical school curriculum. Students who cannot participate in clinical rotations due to criminal or other adverse activities that are revealed in a criminal background check are unable to fulfill the requirements of medical school. Additionally, many health-care licensing agencies require individuals to pass a criminal background check as a condition of licensure or employment. Therefore, it is important to resolve these issues prior to a commitment of resources by the applicant, the current student or the SOM.

4. The SOM is obligated to meet the contractual requirements contained in affiliation agreements between the SOM and the various clinical facilities.

### IV. Background Check Report

1. The SOM will designate approved company (-ies) to conduct the criminal background checks and issue reports directly to the SOM. Results from a company other than those designated by the SOM will not be accepted. Applicants who have received an offer of
admission and current students must contact a designated company and comply with its instructions in authorizing and obtaining a criminal background check. Applicants who have received an offer of admission and current students are responsible for payment of any fees charged by a designated company to provide the criminal background check.

2. Criminal background checks include the following and cover at least the past seven years:
   A. Criminal history search, including convictions, deferred adjudications or judgments, and pending criminal charges involving felonies, Class A, Class B, and Class C violations
   B. Social Security Number verification
   C. Violent Sexual Offender and Predator Registry search
   D. Office of the Inspector General (OIG) List of Excluded Individuals/Entities
   E. General Services Administration (GSA) List of Parties Excluded from Federal Programs
   F. U.S. Treasury Office of Foreign Assets Control (OFAC), List of Specially Designated Nationals (SDN)
   G. Applicable State Exclusion List

3. Applicants who have received an offer of admission and current students have the right to review the information reported by a designated company for accuracy and completeness and to request that a designated company verify that the background information is correct. Prior to making a final determination that will adversely affect the applicant or current student, the SOM will provide the applicant or student a copy of or access to the background check report in order to question the accuracy of the report. The designated company is not involved in any decisions made by the SOM.

V. Procedure

1. Applicants
   A. Applicants must complete the required criminal background check review following the offer of admission but prior to matriculation.
   B. The criminal background check report will be submitted to and reviewed by the Background Check Review Committee. The Background Check Review Committee includes the Dean for Admissions, the Dean for Student Affairs and the Vice Dean for Undergraduate Medical Education. If the report contains negative findings, the committee may request that the applicant submit additional information related to the negative finding, such as a written explanation, court documents, and/or police reports. The committee will review all available relevant information and determine appropriate action.
   C. The committee has authority to refuse the admission of the applicant to the SOM. The committee decisions are final and may not be appealed.

2. Current Students
   A. Students who did not have a valid criminal background check at the time of their admission into the medical educational program must complete the criminal background check review prior to commencement of an assignment to a clinical facility. Students who return from a leave of absence may require a criminal background check. It is the obligation of current students to report all non-traffic related legal violations to the Office for Student Affairs within 30 days; these students may also require satisfactory completion of a criminal background check.
   B. Criminal background check reports will be submitted to the Background Check Review Committee for its review. If the report contains negative findings, the committee may request that the student submit additional information related to the negative finding, such as a written explanation, court documents and/or police reports. The Background Check Review Committee will review all available relevant information and make decisions related to the student’s participation in clinical activities.
   C. If the Background Check Review Committee has sufficient information from the background check to decide adverse action, the student may appeal to the Student Promotions Committee.

3. Committee Review Standards
   A. In reviewing the background check reports and any submitted information, the Background Check Review Committee may consider the following factors in making its determinations: the nature and seriousness of the offense or event, the circumstances surrounding the offense or event, the relationship between the duties to be performed as part of the medical educational program and the committed offense, the age of the person when the offense or event occurred, whether the offense or event was an isolated or repeated incident, the length of time that has passed since the offense or event, past employment and history of academic or disciplinary misconduct, evidence of successful rehabilitation, and the accuracy of the information provided by the applicant who has received an offer of admission or student in the application materials, disclosure forms, or other materials. The committee should bear in mind both the safety interests of the patient and the workplace, as well as the educational interest of the student. In reviewing background checks and supplementary information, advice may be obtained from UT Health Science Center of San Antonio (HSC) or UT System counsel, HSC police, or other appropriate advisors.

VI. Confidentiality and Record Keeping

1. Criminal background check reports and other submitted information are confidential and may only be reviewed by HSC officials and affiliated clinical facilities in accordance with the Family Educational Rights and Privacy Act (FERPA).
2. Students: Criminal background check reports and other submitted information will be maintained in the Office for Student Affairs in accordance with the HSC’s record retention policy for student records.
3. Applicants Denied Matriculation: Criminal background check reports and other submitted information of applicants denied matriculation into the program will be maintained in accordance with the HSC’s record retention policy.

VII. Other Provisions

1. The SOM shall inform the student who has negative findings in his/her criminal background check report. The SOM’s decision to allow the student to enroll in the medical educational program is not a guarantee that every clinical facility will permit the student to participate at its clinical sites, or that any state will accept the individual as a candidate for registration, permit, or licensure. An assigned clinical facility may require a repeat criminal background check. The Office for Student Affairs will attempt to prevent unnecessary repeated criminal background checks at clinical sites.
The student must recognize the potential for an inability to complete medical educational degree requirements if the student is denied participation at a clinical facility fulfilling an essential irreplaceable clinical experience. Clinical affiliates may adopt more stringent requirements to which the rotating student must comply.

2. The SOM may require repeat criminal background checks for continuously enrolled students. A student who has a break in enrollment such as a leave of absence may be required to complete a re-entry criminal background check.

3. Falsification of information, including omission of relevant information, may result in denial of admission or dismissal from the medical educational program.

4. Criminal activity that occurs while a student is in attendance at the SOM may result in disciplinary action, including dismissal, and will be addressed through the charge of the Student Promotions Committee.

IX. Policy for Sharing Student Background Checks

1. Authorization to share information: Student background check reports maintained by educational institutions are records subject to FERPA. FERPA prohibits the release of educational records without the student’s written authorization unless there is a specific FERPA exception authorizing the release. Given that an affiliated clinical facility is offering educational services that would otherwise be provided by the educational institution, FERPA can be reasonably interpreted to permit the institution to release the information to the clinical facility without the student’s authorization. NOTE: HIPAA is not applicable to this scenario.
   A. A general notice will be provided to students that background check reports may be provided to affiliated clinical facilities at which students will attend as part of their required course of study.
   B. A general release will be obtained from students at the time of the criminal background check that authorizes the release of reports or results to any affiliated clinical facility to which students may be assigned.
   C. Information will be released to the affiliated clinical facility upon its request.

2. Requests for Information: Request for criminal background check reports must be submitted in writing by the affiliated clinical facility and state the reason why the information is needed. All requests will be handled by the Office for Student Affairs. Requests for information records will be maintained for as long as the background check reports are maintained.

3. Transmission of Information: Educational records will be sent to the clinical facility in a confidential manner. This can be achieved either by mailing the information and marking the outside of the envelope confidential, or scanning and e-mailing the records directly to the secure e-mail address for receipt of confidential information as identified by the clinical facility, preferably in the affiliation agreement.

4. Confidentiality of Information: In releasing educational records to a clinical facility, FERPA requires that the clinical facility maintains the confidentiality of the educational records while the records are in its possession. The affiliated clinical facility will be informed in writing that:
   A. the information is confidential and subject to FERPA;
   B. the information may only be viewed by individuals who have a legitimate need to view the information to verify or audit the qualifications of the student to participate in the educational program at the clinical facility;
   C. the information may not be disclosed to other entities without the student’s written authorization;
   D. the information must be destroyed when it is no longer needed for the purposes for which the information was provided to the clinical facility; and
   E. improper disclosure of personally identifiable information contained within the report may result in the HSC being prohibited from providing the clinical facility access to this information for at least five years.

5. Affiliation or Program Agreements: Affiliation agreements may include a reference for requirements of criminal background checks. If criminal background check reports are shared with the clinical facility, the clinical facility is subject to the requirements of FERPA as to any documents received by the clinical facility from the SOM regarding a student.

Advanced Standing

The acceptance of students with advanced standing is dependent upon the availability of clinical and academic facilities. Each year the UT School of Medicine at San Antonio (SOM) considers class size and the imperative of maintaining high quality training in deciding whether additional students with advanced standing will be admitted. In such rare cases, only students currently enrolled in an LCME (http://www.lcme.org)-accredited medical school in good academic standing can be considered. Given the scarcity of spaces, preference is given to those who must move to San Antonio for reasons of personal hardship and who have not only the consent but also the active support of their schools for the proposed move. The SOM will determine in each case the viability of the proposed transfer from an academic viewpoint and establish the necessary courses and other requirements and level at which the transfer would take place. No transfers for advanced standing will occur prior to the end of traditional pre-clinical curricula. Application forms and inquiries concerning advanced standing admission should be obtained from and addressed to the Vice Dean for Undergraduate Medical Education. A nonresident of the state of Texas cannot be enrolled with advanced standing if the result of that enrollment would cause the percentage of nonresidents enrolled in the class of interest to rise above ten percent.

Grades, Promotion, and Graduation

The UT School of Medicine at San Antonio Curriculum Committee (CC) is the body that provides central oversight and makes recommendations to the Dean of the SOM and Dean delegates for the overall design, management and evaluation of a coherent and coordinated curriculum. The Student Promotions Committee (SPC) is charged with review of the academic progress and professional development of each student during all components of the four year medical education program, making recommendations to the Dean of the SOM and Dean delegates. The SPC has primary responsibility for recommending for graduation only those candidates who have satisfactorily completed all graduation requirements and demonstrated the professional conduct appropriate for a physician.

For purposes of the policy, the “pre-clinical years” include modules taught from fall of year 1 through mid-spring of year 2. The “clinical years” include all core clerkships and clinical courses including clinical electives. The academic standards for successful completion of a pre-clinical module are determined by the module director, adhering to a grading rubric approved by the CC, but may be appealed to the SPC. In the clinical years, academic standards for successful completion of a clerkship or clinical course are determined by the clerkship or course
Grades

Grades are based on an A, B, C, F system for all pre-clinical modules and core clerkships. Grades for clinical courses will mostly be based on a pass/fail system. Grades of A, B, and C are considered passing. A=outstanding performance, B=very good performance, C=satisfactory performance and F=indicates failing performance. No grade of D will be issued. The grade of Incomplete (I) is reserved for circumstances in which academic work is not attempted or completed due to illness, family emergency, or other non-academic extenuating circumstances. A grade of I is disallowed for substandard academic performance.

For purposes of class rank, each letter grade is assigned a point value as follows:

<table>
<thead>
<tr>
<th>Letter Grade</th>
<th>Grade Point Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>4 points</td>
</tr>
<tr>
<td>B</td>
<td>3 points</td>
</tr>
<tr>
<td>C</td>
<td>2 points</td>
</tr>
<tr>
<td>F</td>
<td>0 points</td>
</tr>
</tbody>
</table>

Remediation grades (as described below) will be classified as “Pass” or “Fail”. For purposes of class rank, a course that is remediated to a “Pass” will be given the same point value as a “C.”

Beginning with the Class of 2016, class rank will be calculated twice during the 4 year curriculum as follows: 1). at the conclusion of the pre-clinical curriculum 2). at the date that the core clerkships must be completed during the clinical years as specified by the academic calendar.

Grades for clinical courses (including selectives and electives)

For students in the Class of 2014 and 2015

Students are assessed using the clinical course grading policy in place at the outset of that student’s fourth year of medical school.

For students in the graduating class of 2016 (and beyond)

Clinical course student assessment is based on pass/fail competency and professionalism demonstration as per the elective’s grading rubric.

Process of distribution of grades

In the pre-clinical curriculum, final grades are calculated by the Office of Undergraduate Medical Education, approved by the module co-directors, ratified by the Student Promotions Committee (SPC), and then released to the students.

In the core clerkships, final grades will be calculated by Clerkship Directors and made available to the students no later than 6 weeks after completion of the clerkship. In selectives and electives, final grades will be calculated by Course Directors and made available to the students no later than 4 weeks after completion of the course. Final grades in the clinical curriculum will be submitted to the Office of Undergraduate Medical Education and ratified by the SPC.

Promotion

The SPC monitors the progress of students throughout the four year medical education program. Students must satisfactorily complete the pre-clinical modules in order to be promoted to the clinical curriculum. Remediation guidelines are set by the CC, but the SPC makes final remediation and progression decisions after a thorough review of the individual student’s performance in modular components and previous modules, when applicable. (Certain curricular component remediation guidelines state that demonstration of competency in the domain of concern during the next module is sufficient.)

In the clinical curriculum, the grading standard is set by the clerkship or course director within the bounds of applicable CC policy. Clerkship or course directors assess student performance independent of considerations of the student’s performance in other clerkships or courses.

Students must satisfactorily complete all required modules in the pre-clinical years and all required clerkships and courses in the clinical years, as well as meet pre-determined requirements for additional selectives and electives, to progress through the medical education program and be recommended for graduation.

Deficiencies

The SPC considers a variety of approaches to deficiency removal. These approaches may include Remediation, Repetition, and/or Dismissal.

Remediation is an academic activity designed to remove a deficiency in the pre-clinical years or a clerkship or course in the clinical years. Repetition is the act of repeating part or all of an academic year due to substandard academic performance, usually following unsuccessful deficiency remediation. Because module grades are derived from different components, students who fail to meet passing standards in any component will receive a failing grade. Module remediation guidelines are set by the CC and prescribed to the SPC by the Assistant Deans for Curriculum. Only students who have not failed another module in the same academic year or two prior modules are eligible for remediation. When remediation is approved for a deficiency in the pre-clinical or the clinical years, the nature of the remediation activity will be determined by the SPC, after consideration of module, clerkship or course director recommendations, an assessment of a student’s overall academic performance, a student’s written request, and other factors as deemed appropriate by the SPC.

Students successful in remediation activities continue to the next academic level. Successful remediation of any failed module component in the pre-clinical years or a clerkship or course in the clinical years will be transmitted to the registrar and recorded on a student’s official transcript as “F-Remediated to Pass”. Also, students who remediate deficiencies may not receive concurrent credit for any other curricular activity. Students unsuccessful in deficiency remediation are required to repeat all modules of the academic year; similarly, students unsuccessful in deficiency remediation in a clerkship or course in the clinical years are required to repeat the clerkship or course. The SPC will determine if previously passed courses are based on integration such that repetition of one course requires concurrent or sequential repetition of others. The SPC, following its review of the student’s academic status, will determine the most appropriate approach to facilitate the student’s acquisition of fundamental knowledge.

Dismissal means permanent separation from the SOM and will be warranted in some instances, as outlined below.

Procedures to Address Failures

The student falling outside of usual guidelines may request that the SPC grant an opportunity to remediate grade deficiencies or repeat
the academic year. This request must be in writing, delineating both academic and non-academic factors for the SPC to consider. The SPC may grant such a request subject to determination that the request is likely to facilitate student learning and progress. The criteria, as stated below, apply to each year of the SOM curriculum. In addition, no more than two (2) years may be taken to complete any one (1) year of the curriculum. No more than six (6) years may be taken to complete the medical educational program without permission from the SPC.

SPC Guidelines in Year 1
1. Policy on failure of modules:
   A. 1 module failed in Year 1: Remediation activity
   B. 2 modules failed in Year 1: Repetition of all modules in Year 1
   C. 3 or more modules failed in Year 1: Dismissal from the SOM

2. Policy on failure of a remediation activity:
   A. remediation activity failed in Year 1: Repetition of all modules in Year 1

SPC Guidelines in Year 2
1. Policy on failure of modules:
   A. 1 module failed in Year 2: Remediation activity
   B. 2 modules failed in Year 2 (excluding longitudinal courses):
      Repetition of all modules in Year 2 including portion of longitudinal course in Year 2
   C. 1 module failed and 1 non-longitudinal module failed:
      Remediation for each module
   D. 3 or more courses failed in Year 2: Dismissal from the SOM

2. Policy on failure of a remediation activity:
   A. remediation activity failed in Year 2: Repetition of all modules in Year 2

3. Policy on failure across Year 1 and 2:
   A. 3 or more modules failed across Year 1 and 2 (for any reason):
      Dismissal from the SOM

SPC Guidelines in Year 3 and Year 4
1. Policy on failure of NBME exams:
   A. 1 or 2 exams failed: Remediation at the end of the academic year (if no previous courses failed for any reason)
   B. 3 exams failed: Dismissal from the SOM

2. Policy on failure of clinical portion of clerkship:
   A. Remove student from clerkship and remediate skills: Repetition of clinical portion of clerkship

3. Policy on failure across academic years:
   A. 3 or more courses failed across Year 3 and 4: Dismissal from SOM

SPC Guidelines Year 1 through Year 4
1. Policy on failure Year 1 through Year 4:
   A. 3 or more courses failed Year 1 through Year 4: Dismissal from SOM

Other SPC Guidelines Year 1 through Year 4
1. The SPC can mandate a Leave of Absence for a student in difficulty, if the SPC determines that this is in a student’s best interest.
2. Process for appeals: Refer to the SOM Grievance Policy

3. Mandatory meetings with SPC: The SPC can mandate that a struggling student be required to present to the SPC, the Deans for Student Affairs and the Deans for Curriculum.

4. Restrictions on activities for students in academic difficulty:
   A. A student with one or more failures is restricted from his/her UT Health Science Center of San Antonio (HSC) extracurricular activities. Activities include holding a class office, participating in research which has no credit assignment, participating in intramural sports, applying for/serving as Office of Student Life Peer Advisor, and receiving international/service/conference funding until satisfactory completion of a full academic year.
   B. The range of possible sanctions for a professionalism violation is in the Handbook of Operating Procedures (HOP) and in the Code of Professional Conduct for Students.

United States Medical Licensing Examination
The United States Medical Licensing Examination (USMLE) is jointly sponsored by the National Board of Medical Examiners and the Federation of State Medical Boards. A passing score on each portion of the USMLE is accepted by medical boards in every state as evidence of core competency to practice medicine. The current required exams are USMLE Step 1, USMLE Step 2 CK (Clinical knowledge), USMLE Step 2 CS (Clinical Skills), and Step 3. Step 3 is taken after medical school graduation.

It is essential that medical students meet required benchmarks that lead to medical licensure. Although designed for the purpose of licensing physicians, scores on USMLE Step 1 and USMLE Step 2 CK are often used by graduate medical education programs in decisions to interview and rank medical students for residency positions. It is therefore incumbent upon the UT School of Medicine at San Antonio (SOM) to establish policies pertaining to the timing and passage of the USMLE in order to optimize career outcomes for students and to ensure that graduates meet at least minimal licensing requirements.

Policy on Failure of USMLE Step 1
1. For students in the Class of 2014:
   Students must have taken USMLE Step 1 in order to begin the clinical curriculum. Students must pass USMLE Step 1 in order to be promoted to the fourth year. Students who are unsuccessful will be allowed to complete the clinical clerkships. However, students will not be allowed to begin either fourth yearselectives or electives until they have retaken the examination. Three (3) failures of the USMLE Step 1 meet criteria for dismissal from the SOM.

2. For students in the Class of 2015:
   Students must take USMLE Step 1 prior to the start of Clinical Foundations in June 2013. The Office for Student Affairs may grant an exception to this requirement for individual students.
   • If a student does not achieve a passing score on the first attempt, he/she will be allowed to complete third year coursework. Fourth year coursework will not begin until the student has completed a second attempt on USMLE Step 1.
   • A student is permitted to begin fourth year coursework while he/she awaits the score from a second attempt on USMLE Step 1.
   • A student who receives a second failure on USMLE Step 1 will be placed on a mandatory Leave of Absence until he/she completes and receives a passing score on a third attempt on USMLE Step 1, after which time course work can resume. Graduation may be delayed.
Policy on Failure of USMLE Step 2 CK

1. For students in the Class of 2014:
   Medical students must take the USMLE Step 2 CK in order to qualify for graduation from the SOM.

2. For students in the Class of 2015 (and beyond):
   Students must take USMLE Step 2 CK by December 15 of the chronological third year of the medical curriculum.
   • If a student does not achieve a passing score on the first attempt, he/she will have the option to immediately make a second attempt to pass USMLE Step 1 or to complete additional coursework.
   • An unsuccessful student must complete a second attempt on USMLE Step 1 by July 1 of the chronological fourth year of the medical curriculum. Failure to do so by this date will result in the imposition of a mandatory Leave of Absence until the exam is taken.
   • A student may resume clinical coursework while he/she awaits the score from a second attempt on USMLE Step 1.
   • A student who receives a second failure on USMLE Step 1 will be placed on a mandatory Leave of Absence until he/she completes and receives a passing score on a third attempt on USMLE Step 1, after which time course work can resume. Graduation may be delayed.
   • A student who receives a third failure on USMLE Step 1 meets criteria for dismissal from the SOM.

3. For students in the Class of 2016 (and beyond):
   Students must take USMLE Step 2 CK following these established rules:
   • If a student has not taken and passed the USMLE Step 2 CK
   • If a student has not passed USMLE Step 2 CK by the graduation date, he/she will not receive a diploma for the M.D. degree with his/her class. The student will remain a fourth year student until the exam is taken.
   • If a student does not achieve a passing score on the first attempt, he/she will be placed on a mandatory Leave of Absence until the exam is taken.
   • A student may resume clinical coursework while he/she awaits the score from a second attempt on USMLE Step 2 CK.
   • If a student does not achieve a passing score on USMLE Step 2 CK within three attempts meets criteria for dismissal from the SOM.

Policy on Failure of USMLE Step 2 CS

1. For students in the Class of 2014:
   Medical students must take the USMLE Step 2 CS in order to qualify for graduation from the SOM.

2. For students in the Class of 2015 (and beyond):
   Students must take and pass USMLE Step 2 CS in order to graduate from the SOM.
   Students must take USMLE Step 2 CS following these established rules:
   • Students are strongly encouraged to take USMLE Step 2 CS by October of the chronological fourth year of the medical curriculum.
   • A second failure on USMLE Step 2 CS may delay graduation.
   • If a student has not taken USMLE Step 2 CS by December 15 of his/her chronological fourth year, he/she will be placed on mandatory Leave of Absence until the exam is taken.
   • If a student has not passed USMLE Step 2 CS by the graduation date, he/she will not receive a diploma for the M.D. degree with his/her class. The student will remain a fourth year student until the exam is taken and passed.
   • A student who receives a second failure on USMLE Step 2 CS will be placed on a mandatory Leave of Absence until he/she completes and receives a passing score on a third attempt on USMLE Step 2 CS, after which time course work can resume. Graduation may be delayed.
   • If a student does not pass Step 2 CS by the graduation date, he/she will not receive a diploma for the M.D. degree with his/her class. The student will remain a fourth year student until the exam is taken and passed.
   • A student who does not achieve a passing score on USMLE Step 2 CS within three attempts meets criteria for dismissal from the SOM.

Academic Dismissal

Dismissal from the SOM for academic reasons may be considered for:

1. Students unable to meet the promotion standards to a given academic level or after one additional repeat/remediation year are ineligible for graduation;
2. Students requiring more than one repeat/remediation year to meet promotion standards;
3. Students receiving a grade of F in a module or course being repeated;
4. Students unable to achieve a passing score on USMLE Step 1 within three attempts and students in the Class of 2015 (and beyond) unable to achieve a passing score on USMLE Step 2 CK and CS within three attempts each;
Dismissal for academic reasons will be the decision of SPC. The decision of the SPC is final, pending further appeal to the Dean of the SOM. The decision of the Dean of the SOM is final. Solely on procedural concerns, the student may appeal to a higher administrative institutional official (see “Student Academic Grievance Procedures” for details).

Graduation
The degree of Doctor of Medicine is awarded by the Board of Regents upon a student’s successful completion of the graduation requirements, recommendation of the Faculty Council to the Dean of the SOM, and certification by the Dean of the SOM to the President. Candidates must:

1. be at least 18 years of age at the time the degree is awarded,
2. present evidence of good moral character,
3. offer evidence of having satisfactorily fulfilled all academic requirements of the four year medical education program, and
4. comply with all necessary legal and financial requirements.

Degrees will be conferred once a year on Commencement Day in the spring. Students completing requirements for a degree earlier in the year will be conferred the degree on the following Commencement Day, but may request the Registrar to provide a Certification of Completion on the date of graduation.

Scholastic Honors
Alpha Omega Alpha (AOA) Honor Medical Society is a national professional organization whose aims are the “promotion of scholarship and research in medical schools, the encouragement of a high standard of character and professionalism among medical students and graduates, and the recognition of high attainment and service in medical science, patient care, and related fields”. Election is based on academic excellence, and on activities and achievements that promote the values of AOA. The top 25 percent of the medical school class is eligible for nomination to the society. From this top quartile of students, up to one-sixth of the class may be elected to the society based on academic achievement, leadership, character, community service, and professionalism. Students may be chosen in the junior or senior year.

The Gold Humanism Honor Society, sponsored by the Arnold P. Gold Foundation, recognizes students who best exemplify and manifest humanism in their interaction with patients, peers, faculty, and community. Additionally, elected students demonstrate excellence in clinical care, leadership, compassion and dedication to service. Society membership participates in a community service project that is formulated by the group. Election is limited to no more than twenty-five students from the graduating class.

Code of Professional Conduct
Preamble
Because practicing medicine is an honor earned every day, we—the faculty and students of the UT School of Medicine at San Antonio (SOM)—subscribe to the highest standards of conduct. Our aim is professional behavior beyond reproach. In particular, we subscribe to the following points of conduct:

Code
A. I will promote and maintain an honest and effective learning environment. I will:

- do my part to ensure that the environment promotes acquisition of knowledge and mastery of skills;
- not tolerate harassment, flagrant disruption of the learning process, demeaning language or visual aids, disrespectful behavior, or lack of respect for life and living things;
- exhibit the highest standards of conduct, honesty, and professionalism;
- identify and report those who exhibit academic or professional misconduct; and
- appreciate each individual as a person of value and help maintain dignity during the learning process.

B. I will place primary emphasis on the health and welfare of patients. I will:

- attain and maintain the most current knowledge in the healing arts and the skill to apply that knowledge;
- display respect and compassion for each patient;
- foster and preserve the trust that exists between professional and patient;
- respect and maintain the confidentiality of the patient; and
- let no patient in whose care I participate suffer physically or emotionally as a consequence of unprofessional behavior by myself or others.

C. I will conduct myself at all times in a professional manner. I will:

- exhibit honesty, openness, and evenhandedness in dealing with others;
- maintain my personal hygiene and appearance in such a way that it does not interfere with my ability to communicate with patients, colleagues, or community;
- not engage in language or behavior which is disrespectful, abusive, or insulting;
- take responsibility for my actions, acknowledge my limitations, and ask for assistance when needed;
- assure the welfare of others is not compromised as a result of my inadequacy or impairment;
- not be deceitful or self-serving;
- achieve satisfactory balance in personal, community, and professional activities;
- not allow personal conflicts to interfere with objectivity in relationships with colleagues or patients;
- accommodate a fellow professional’s request for my knowledge and expertise;
- refrain from the manifestation of bias, including sexual, marital, racial, ethnic, or cultural harassment;
- support my fellow professionals if they should falter; and
- identify colleagues whose ability to provide care is impaired, support them as they seek rehabilitation, and help them to reintegrate into the medical community.

Administration of the Code of Professional Conduct for Students
As part of the SOM’s recent Professional Identity Development initiatives, and recognizing that professionalism is a critical physician competency, this policy is under review for congruence with professionalism goals. However, any policy modifications will respect the principles of the current policy: reports from complainant(s) and person(s) charged, witness verification of events when possible, due process (decision-making through Student Promotions Committee-SPC), and timely resolution.
Medical students are expected to maintain the highest standards of professional and ethical conduct. Medical students are expected to conduct themselves in a professional manner in interaction not only with patients, but also with peers, faculty, and staff of the UT Health Science Center at San Antonio (HSC) and the broader community. The SOM, HSC and UT System have written expectations of professional conduct. Medical students are governed by the above Code of Professional Conduct in the SOM. Each module, clerkship or course director may also develop written expectations of professional conduct. These expectations are distributed to students, or posted for each module, clerkship or course.

A report of professional misconduct is investigated in accordance with previously established policies and procedures within the SOM, HSC and the UT System:

At present a potential violation of professional conduct is reported to a Dean for Student Affairs who meets with the complainant to determine the charges and to explain the investigative process. If the charges are not in writing, the Dean for Student Affairs will prepare a statement of the charges and obtain verification of the charges from the complainant. The Dean for Student Affairs will be responsible for ensuring that no retaliation is made against the complainant. The Dean for Student Affairs will interview the accused student, allowing the accused student the opportunity to respond to the charges and to review the available evidence supporting the charges. The Dean for Student Affairs will interview others as indicated. All HSC personnel and students must cooperate with the investigation. The investigation will be conducted in a timely manner. At the conclusion of the investigation, the Dean for Student Affairs will prepare a written report detailing the charges, the investigative process and the results of the investigation. The Dean for Student Affairs will present the written report to the SPC for recommendations. Any disciplinary action/sanction(s) recommended by the SPC shall be in accordance with applicable SOM and HSC policies (see "sanctions" below). The decision of the SPC is final, pending further appeal to the Dean of the SOM. The sanctioned student may file a written appeal to the Dean of the SOM within five business days from receipt of the SPC written decision. Within 30 calendar days from receipt of the student's appeal, the Dean of the SOM will provide a written decision to the student, the Vice Dean of Curriculum in writing within five business days from the date the student knew or should have known of the academic concern. Within 30 calendar days from receipt of the student’s written communication, the Clerkship Director/Course Director will investigate the student's academic concern. The student will contact the Clerkship Director/Course Director from the date the student knew or should have known of the academic concern. Within 30 calendar days from receipt of the student's written communication, the Clerkship Director/Course Director will investigate the student's academic concern.

The following sanctions may be assessed by the SPC or the Dean of the SOM:

a). Warning
b). Probation
c). Withholding of grades, official transcript, and/or degree
d). Bar against readmission
e). Restitution or reimbursement for damage to or misappropriation of UT System or HSC property
f). Suspension of rights and privileges derivin whole or in part for the SOM, including participation in extracurricular activities
g). Suspension of eligibility for any student office or honor
h). Cancellation of credit for scholastic work done
i). Failing grade or reduction of a grade for an examination, assignment, or course
j). Suspension from the HSC for a specified period of time
k). Dismissal
l). Denial of degree
m). Revocation of degree and withdrawal of diploma
n). Formal letter of reprimand in the academic file
o). Other sanction(s) as deemed appropriate under the circumstances

Medical Student Grievance Procedures

Academic Grievance

An academic grievance is a complaint regarding an academic decision or action that affects the student’s academic record. Academic grievances in the UT School of Medicine at San Antonio (SOM) may be handled by informal resolution or formal resolution.

A. Procedure for Informal Resolution in the Pre-Clinical Curriculum

A student who feels that he/she has an academic grievance in the pre-clinical curriculum, usually regarding an examination score or module grade, may attempt to informally resolve the concern by contacting the Dean of Curriculum in writing within five business days from the date the student knew or should have known of the academic concern. Within 30 calendar days from receipt of the student’s written communication, the Dean for Curriculum will investigate the concern and provide the student a written decision.

B. Procedure for Informal Resolution in the Clinical Curriculum

A student who feels that he/she has an academic grievance in the clinical curriculum may attempt to informally resolve the concern by contacting the Clerkship Director/ Course Director in writing within five business days from the date the student knew or should have known of the academic concern. The student will contact the Clerkship Director/ Course Director to discuss the academic concern, usually related to narrative evaluation comments, overall evaluation, an examination score or a course grade. The Clerkship Director/ Course Director will investigate the student’s concern, employing departmental education processes such as committee review, as per departmental practice. Within 30 calendar days from receipt of the student’s written communication, the Clerkship Director/ Course Director will investigate the concern and provide the student a written decision.

C. Procedure for Formal Resolution (“Appeal”) in the Pre-Clinical and Clinical Curriculum

The process and procedures for formal academic grievance (“appeal”) resolution are sequenced below. Academic grievance applies to concerns adversely influencing the student’s academic status. Examples include, but are not limited to, examination score, module, course or clerkship grades, remediation, repetition, suspension, probation, professionalism sanctions, and dismissal.

1. A student must file written notice of grievance with the Dean for Student Affairs and the Chair of the Student Promotions Committee (SPC) within five business days from the date the student knew or should have known of the concern unless the student first pursues
an informal grievance process. In that instance, the student must then file the formal grievance within five business days of the written decision for the informal grievance. If the student chooses not to attempt informal resolution of a grievance, he/she must file a formal written appeal not more than five business days from the date the student knew or should have known of the academic concern.

2. The aggrieved student must meet with the Dean for Student Affairs to ensure factual accuracy of the basis for appeal, review the processes and procedures, and anticipate preparation of documentation for the SPC meeting. In the written appeal, the student must describe the rationale for the grievance in detail and propose a resolution. An ad hoc group of the SPC, including the Dean for Student Affairs, the Chair of the SPC and one member of the SPC, will investigate the grievance, meeting with the student as necessary to ensure a comprehensive review. The Chair of the SPC will present the student’s written statement and any supporting documentation, as well as the ad hoc investigatory summary to the SPC at the next scheduled SPC meeting. The SPC may defer a decision if more information/documentation is required to make a responsible decision, and may request a face-to-face meeting with the student prior to rendering a decision. The SPC will provide the student a written decision within five business days after the meeting. The decision of the SPC is final, pending appeal to the Dean of the SOM. The student continues in the curriculum until the appeal process is exhausted unless the student’s continuance poses a safety concern.

3. The student may file a written secondary appeal to the Dean of the SOM within five business days from receipt of the SPC written decision. The student must also inform the Dean for Student Affairs of the intent to appeal, also within the same the five business days. The student’s appeal portfolio must include a justification statement for secondary appeal and all documentation provided to the SPC. Upon review of the student’s record and appeal portfolio, the Dean of the SOM may elect to:
   A. take no action, allowing the SPC decision to stand
   B. modify the SPC decision
   C. make an alternate decision
   D. impanel an ad hoc committee to re-examine the grievance and make recommendations.

The ad hoc committee will be composed of three SOM faculty members appointed by the Dean of the SOM. Faculty disallowed include members of the SPC, UME professional leadership, and module/clerkship/course directors. The committee will have full investigative authority and make recommendations directly to the Dean of the SOM. At the discretion of the Dean of the SOM and/or the ad hoc committee, a face-to-face meeting with the aggrieved student may be required. The Dean for Student Affairs will accompany the student in any/all face-to-face meetings with the Dean of SOM and/or ad hoc committee. Within 30 calendar days from receipt of the student’s appeal, the Dean of the SOM will provide a written decision to the student, the Vice Dean for Undergraduate Medical Education and the Chair of the SPC. The decision of the Dean of the SOM is final. The Dean for Student Affairs will meet with the student to inform about the Dean of SOM’s decision. At the next scheduled SPC meeting, the Chair of the SPC will present the Dean of the SOM’s decision for entry into the minutes.

4. Within five business days of receipt of the Dean of SOM’s decision, the student may file a formal written appeal to a higher administrative institutional official but only for procedural concerns. In rare circumstances the Texas Higher Education Coordinating Board (THECB) will investigate student complaints. Please refer to the THECB website for more information.

Nonacademic Grievance

A student who has a nonacademic grievance concerning perceived violation of her/his student rights; discrimination based on age, color, disability*, family status, gender, national origin, race, religion, veteran status, sexual orientation; or sexual harassment/sexual assault** may seek grievance resolution. The student may file a nonacademic grievance against another student, faculty, staff or official publication of the UT Health Science Center at San Antonio (HSC) via a written statement to the Dean for Student Affairs. Nonacademic grievances in the UT School of Medicine at San Antonio (SOM) may be handled by informal resolution or formal resolution.

A. Procedure for Informal Resolution

A student pursuing an informal nonacademic grievance resolution must contact the Dean for Student Affairs, in writing, within five business days of the alleged grievance. (If the grievance involves staff, faculty, student(s) from the broader HSC community, the Dean for Student Affairs will liaise with other appropriate authorities, as indicated.) The Dean for Student Affairs will assist the student in the informal resolution of the grievance, to be completed within 30 calendar days from the grievance stimulus. If an informal resolution is not achieved, the aggrieved student has an additional five business days to file a formal written grievance.

B. Procedure for Formal Resolution

The process and procedure for formal nonacademic grievance resolution are sequenced below.

1. A student considering pursuit of a formal nonacademic grievance must contact the Dean for Student Affairs for review of applicable policies and procedures. (Specifics unique to the grievance, and persons may require involvement of additional institutional representatives).

2. A formal grievance must include the following information: relevant name(s), date(s), location(s), witness(es) and complete description(s) of the grievance and a proposed resolution, if possible.

3. The student must file the formal grievance, in writing, with the Dean for Student Affairs within five business days from the alleged grievance stimulus. A student initially attempting informal grievance must file the formal grievance, in writing, within five business days of the 30 calendar days allowed for informal resolution.

4. If the grievance involves/accuses HSC non-medical students or employees, the Dean for Student Affairs will facilitate engagement with appropriate advocacy/supervisory institutional authorities to ensure that coordination of investigatory and resolution processes transcend interschool and student/employee boundaries.

5. Copies of the written grievance will be made available to named parties and the appropriate advocacy/supervisory institutional authorities.

6. The Dean for Student Affairs (and appropriate institutional authorities noted above) may, at her/his discretion, hold discussions with or without the involved/accused individual(s) to hear and resolve the grievance, schedule a meeting between the student and the involved/accused individual(s) and/or involve other parties in
facilitating a resolution of the grievance. This process will be afforded 30 calendar days from receipt of the formal written grievance to resolve the grievance, providing the aggrieved student a written summary of resolution.

7. If the aggrieved student is dissatisfied with the resolution, he/she may file a formal written appeal with the Dean of the SOM within five business days of receipt of the decision. The Dean of the SOM has 30 calendar days to provide a written decision to the student and to the Dean for Student Affairs. The decision of the Dean of the SOM is final.

8. Within 5 business days of receipt of the Dean of the SOM’s decision, the student may file a formal written appeal to a higher administrative institutional official, but only for procedural concerns.

9. In rare circumstances the Texas Higher Education Coordinating Board (THECB) will investigate student complaints. Please refer to the THECB website for more information.

**see additional related HSC policies/procedures: “Nondiscrimination Policy and Complaint Procedure” at www.uthscsa.edu/eeo/nondiscrimination.asp.

**see additional related HSC policies/procedures: “General Regulations and Requirements, Sexual Assault Policy” at www.uthscsa.edu/eeo/harassment.asp

Student Mistreatment

Mistreatment of students will not be tolerated. Mistreatment, intentional or unintentional, occurs when behavior shows disrespect for the dignity of others and interferes with the learning process. Student mistreatment may take many forms all of which impact student performance. Sexual harassment and assault, which are defined by policy through the UT Health Science Center at San Antonio (HSC)’s Equal Employment Opportunity/Affirmative Action Office, are included in this section as forms of student mistreatment. Student access to personnel and processes for resolution without retaliation are described below.

Examples of behavior that are unacceptable to the UT School of Medicine at San Antonio (SOM) and HSC include:

• Physical or sexual harassment/assault
• Discrimination or harassment based on race, gender, age, ethnicity, religious beliefs, sexual orientation, or disability
• Disparaging or demeaning comments about an individual or group
• Loss of personal civility including shouting, displays of temper, public or private abuse, belittling, or humiliation
• Use of grading or other forms of evaluation in a punitive or retaliatory manner
• Sending students on inappropriate errands

Medical students who feel they have been mistreated may report such perceptions to any of the following:

1. Dean for Student Affairs
2. Director, Equal Employment Opportunity/Affirmative Action Office
3. Counseling Services
4. Office of Student Services
5. Course/Clerkship Director

These school representatives are empowered to informally discuss a student’s perceptions related to mistreatment, providing guidance. These school representatives should refer the student immediately to the Dean for Student Affairs for further instructions.

A grievance involving perceived mistreatment can be resolved in an informal or a formal manner. A student pursuing an informal nonacademic grievance resolution must contact the Dean for Student Affairs, in writing, within five business days of the alleged grievance. If the grievance involves staff, faculty, student(s) from the broader HSC community, the Dean for Student Affairs will liaison with other appropriate authorities, as indicated.) The Dean for Student Affairs will assist the student in the informal resolution of the grievance, to be completed within 30 calendar days from the written grievance. If an informal resolution is not achieved, the aggrieved student has an additional five business days to file a formal written grievance.

A student considering a formal nonacademic grievance must contact the Dean for Student Affairs for review of applicable policies and procedures. If the allegation is one of sexual harassment/assault, the Dean for Student Affairs will engage the HSC’s Director of Equal Employment Opportunity/Affirmative Action Office. (Please see additional related policies “General Regulations and Requirements, Sexual Assault Policy” at www.uthscsa.edu/eeo/harassment.asp). The student must file a formal written grievance with the Dean for Student Affairs within five business days from the alleged incident. A student initially attempting informal grievance must file the formal grievance, in writing, within five business days of the 30 calendar days allowed for informal resolution. The formal grievance must include a detailed description of the grievance and a proposed resolution, if possible. If the grievance involves/accuses HSC non-medical students or employees, the Dean for Student Affairs will facilitate engagement with appropriate advocacy/supervisory institutional authorities. Copies of the written grievance will be made available to named parties and the appropriate advocacy/supervisory institutional authorities. The Dean for Student Affairs (and appropriate institutional authorities noted above) may, at her/his discretion, hold discussions with or without the involved/accused individual(s) to hear and resolve the grievance, schedule a meeting between the student and the involved/accused individual(s) and/or involve other parties in facilitating a resolution of the grievance. This process will be afforded 30 calendar days from receipt of the written grievance to resolve the grievance, providing the aggrieved student a written summary of resolution. If the aggrieved student is dissatisfied with the resolution, he/she may file a formal written appeal with the Dean of the SOM within 5 business days of the alleged grievance. The decision of the Dean of the SOM is final. The Dean of the SOM has 30 calendar days to provide a written decision to the student and to the Dean for Student Affairs. Within 5 business days of the Dean of the SOM’s decision, the student may file a written appeal to a higher administrative institutional official, but only for procedural concerns (See “Medical Student Nonacademic Grievance Procedures” for details).

Scholastic Dishonesty

As part of the UT School of Medicine at San Antonio (SOM)’s recent Professional Identity Development initiatives, and recognizing that professionalism is a critical physician competency, this policy is under review for congruence with professionalism goals. However, any policy modifications will respect the principles of the current policy: reports from complainant(s) and person(s) charged, witness verification of events when possible, due process (decision-making through Student Promotions Committee-SPC), and timely resolution.

Medical students are expected to maintain the highest standards of professional and ethical conduct. Medical students are expected to conduct themselves in a professional manner in interaction not only with
patients, but also with peers, faculty, and staff of the UT Health Science Center at San Antonio (HSC) and the broader community. The SOM, HSC and UT System have written expectations of professional conduct. Medical students are governed by the Code of Professional Conduct in the SOM. Each module, clerkship or course director may also develop written expectations of professional conduct. These expectations are distributed to students, or posted for each module, clerkship or course.

A student who commits an act of scholastic dishonesty is subject to discipline, after thorough investigation by a Dean for Student Affairs. Scholastic dishonesty includes but is not limited to cheating, plagiarism, collusion, signing a classmate’s name for an activity or attendance, submission for credit of any work or materials that are attributable in whole or in part to another person, taking an examination for another person, any act designed to give unfair advantage to a student or the attempt to commit such acts. Any such act may also constitute a violation of professionalism by the student.

Students should report such acts to a Dean for Student Affairs, the module/clerkship/course director, or other faculty. If the reporting is not made directly to the Dean for Student Affairs, then it will be the module/clerkship/course director’s or faculty’s responsibility to report to a Dean for Student Affairs.

The conduct of the investigation of a report of scholastic dishonesty is in accordance with previously established policies and procedures within the SOM, HSC and UT System:

At present a potential act of scholastic dishonesty is reported to a Dean for Student Affairs who meets with the complainant to determine the charges and to explain the investigative process. If the charges are not in writing, the Dean for Student Affairs will prepare a statement of the charges and obtain verification of the charges from the complainant. The Dean for Student Affairs will be responsible for ensuring that no retaliation is made against the complainant. The Dean for Student Affairs will interview the accused student, allowing the accused student the opportunity to respond to the charges and to review the available evidence supporting the charges. The Dean for Student Affairs will interview others as indicated.

All HSC personnel and students must cooperate with the investigation. The investigation will be conducted in a timely manner. At the conclusion of the investigation, the Dean for Student Affairs will prepare a report detailing the charges, the investigative process and the results of the investigation. The Dean for Student Affairs will present the written report to the SPC for recommendations. Any disciplinary action/sanction(s) recommended by the SPC shall be in accordance with applicable SOM and HSC policies (see “sanctions” below). The decision of the SPC is final, pending further appeal to the Dean of the SOM. The sanctioned student may file a written appeal to the Dean of the SOM within five business days from receipt of the SPC written decision. Within 30 calendar days from receipt of the student’s appeal, the Dean of the SOM will provide a written decision to the student, the Vice Dean for Undergraduate Medical Education and the Chair of the SPC. The decision of the Dean of the SOM is final. Within 5 business days of the Dean of the SOM’s decision, the student may file a written appeal to a higher administrative institutional official, but only on procedural concerns (See “Medical Student Academic Grievance Procedures” for details).

The following sanctions may be assessed by the SPC or by the Dean of the SOM:

a). Warning
b). Probation
c). Withholding of grades, official transcript, and/or degree
d). Bar against readmission
e). Restitution or reimbursement for damage to or misappropriation of UT System or HSC property
f). Suspension of rights and privileges deriving in whole or in part for the SOM, including participation in extracurricular activities
g). Suspension of eligibility for any student office or honor
h). Cancellation of credit for scholastic work done
i). Failing grade or reduction of a grade for an examination, assignment, or course
j). Suspension from the HSC for a specified period of time
k). Dismissal
l). Denial of degree
m). Revocation of degree and withdrawal of diploma
n). Formal letter of reprimand in the academic file
o). Other sanction(s) as deemed appropriate under the circumstances

Standards of Conduct for the Teacher – Learner Relationship

The UT School of Medicine at San Antonio (SOM) is committed to creating an environment that promotes academic and professional success in learners and teachers at all levels. The institution strives to create an environment free of behaviors that can adversely affect the Teacher-Learner Relationship. Both teachers and learners share the responsibility in creating and maintaining this environment of respect, fairness, and trust.

Responsibilities in the Teacher/Learner Relationship

A. Responsibilities of teachers

- Treat all learners with respect, fairness, and equality regardless of age, gender, race, ethnicity, national origin, religion, disability, or sexual orientation

B. Responsibilities of learners

- Treat all fellow learners and teachers with respect, fairness, and equality regardless of age, gender, race, ethnicity, national origin, religion, disability, or sexual orientation

Behaviors Inappropriate to the Teacher-Learner Relationship

Behaviors that demonstrate disrespect for others or lack of professionalism in interpersonal conduct are inappropriate and will not be tolerated by the institution. These include, but are not limited to, the following:

- unwanted physical contact (e.g. hitting, slapping, kicking, pushing) or threat of the same
- unwanted verbal contact including loss of personal civility such as shouting, personal attacks, insults, or displays of temper (such as throwing objects)
- sexual harassment (including romantic relationships between teachers and learners in which the teacher has authority over the learner’s academic progress) or harassment based on age, gender, race, ethnicity, national origin, religion, disability or sexual orientation
- discrimination of any form including in teaching and assessment based upon age, gender, race, ethnicity, national origin, religion, disability, or sexual orientation
- requests for others to perform inappropriate personal errands unrelated to the didactic, investigational, or clinical situation at hand
- grading/evaluation on factors unrelated to performance, effort, or level of achievement
These inappropriate behaviors are presented to new UT Health Science Center at San Antonio (HSC) employees in the form of a mandatory educational module through the Knowledge Center, and the information can also be found in the Handbook of Operating Procedures. HSC employees review these standards of conduct in the form of a mandatory educational module through the Knowledge Center bi-yearly. Interns in all medical and surgical disciplines review policies regarding standards of conduct between teacher and learner during mandatory house staff orientation; interns, residents and faculty members review these standards of conduct during department-specific presentations designed to address ACGME core competencies.

Medical students receive education on standards of conduct between teacher and learner during orientation, including an on line EEO/AA module addressing topics such as sexual harassment and sexual misconduct and actions taken if victimized. Many clerkship orientations also review these standards of conduct as important ACGME core competencies.

If such inappropriate behaviors occur, the student is encouraged to state that to the behavior instigator. If the student is uncomfortable doing this, the next course of action is to report the inappropriate behavior to any of the following:

1. Dean for Student Affairs
2. Director, Equal Employment Opportunity/Affirmative Action Office
3. Counseling Services
4. Office of Student Services
5. Course/Clerkship Director

These school representatives are empowered to informally discuss the student’s perceptions related to inappropriate teacher-learner behavior, providing guidance. These school representatives should refer the student immediately to the Dean for Student Affairs for further instructions.

A grievance involving an inappropriate teacher-learner relationship can be resolved in an informal or a formal manner. A student pursuing an informal nonacademic grievance resolution must contact the Dean for Student Affairs, in writing, within five business days of the alleged grievance. (If the grievance involves staff, faculty, student(s) from the broader HSC community, the Dean for Student Affairs will liaison with other appropriate authorities, as indicated.) The Dean for Student Affairs will assist the student in the informal resolution of the grievance, to be completed within 30 calendar days from the written grievance. If an informal resolution is not achieved, the aggrieved student has an additional five business days to file a formal written grievance.

A student considering a formal nonacademic grievance must contact the Dean for Student Affairs for review of applicable policies and procedures. If the allegation is one of sexual harassment/assault, the Dean for Student Affairs will engage the HSC’s Director of Equal Employment Opportunity/Affirmative Action Office. (Please see additional related policies “General Regulations and Requirements, Sexual Assault Policy” at www.uthscsa.edu/eoo/harassment.asp). The student must file a formal written grievance with the Dean for Student Affairs within five business days from the alleged incident. A student initially attempting informal grievance must file the formal grievance, in writing, within five business days of the 30 calendar days allowed for informal resolution. The formal grievance must include a detailed description of the grievance and a proposed resolution, if possible. If the grievance involves/accuses HSC non-medical students or employees, the Dean for Student Affairs will facilitate engagement with appropriate advocacy/supervisory institutional authorities. Copies of the written grievance will be made available to named parties and the appropriate advocacy/supervisory institutional authorities. The Dean for Student Affairs (and appropriate institutional authorities noted above) may, at her/his discretion, hold discussions with or without the involved/accused individual(s) to hear and resolve the grievance, schedule a meeting between the student and the involved/accused individual(s) and/or involve other parties in facilitating a resolution of the grievance. This process will be afforded 30 calendar days from receipt of the written grievance to resolve the grievance, providing the aggrieved student a written summary of resolution. If the aggrieved student is dissatisfied with the resolution, he/she may file a formal written appeal with the Dean of the SOM within 5 business days of the decision. The decision of the Dean of the SOM is final. The Dean of the SOM has 30 calendar days to provide a written decision to the student and to the Dean for Student Affairs. Within 5 business days of the Dean of the SOM’s decision, the student may file a written appeal to a higher administrative institutional official, but on for procedural concerns (See “Medical Student Nonacademic Grievance Procedures” for details).

**Academic Advising**

Academic, career and personal advising resources for medical students include: the Vice Dean for Undergraduate Medical Education, Deans for Student Affairs, Module, Clerkship and/or Course Directors, Veritas Career Advising Leaders/Groups, the UT Health Science Center at San Antonio (HSC)’s Counseling Services and the Office of Student Life Peer Advising Team. Additionally, academic and career advising activities are planned at specific junctures over the four year medical education program and delivered in many different formats.

Veritas is the School of Medicine’s student advising system. Each incoming student is randomly assigned to one of 20 Veritas Groups. Each Veritas Group is led by a clinical faculty member and three 4th year medical students (“Mentors in Medicine=MiMs”) and two 2nd year medical students (Veritas Peer Advisors=VPA”). The groups are clustered into five societies. The structure of Veritas allows a cohesive interclass system in which students receive consistent academic, career and personal advising in the same Veritas groups over the four years of medical school. For career advising one resource accessed heavily is the AAMC “Careers in Medicine” program.

For students who encounter academic difficulty, the module, clerkship or course director is typically the first line of consultation. Deans for Student Affairs, in consultation with the Vice Dean for Undergraduate Medical Education, monitor students’ progress through centralized processes in order to identify problems as early as possible and provide guidance accordingly.

A primary mission of the medical education program is to promote the retention and advancement of medical students throughout the four year curriculum. As such, student services and support include a pre-matriculation program, individual and group tutoring, large-group review sessions for pre-clinical courses, a USMLE preparation course, consultation services for study skills, time management issues, test-taking assistance, and more. The HSC’s Counseling Services provides aid, support and counsel to students dealing with the complex personal, social and academic demands of medical school. The Office of Student Life Peer Advising Team helps new students transition socially and academically into the HSC’s community.

**Guidelines for Clinical Activities by Medical Students**

Medical students rotate in the clinical setting to achieve competencies in all aspects of patient care to include the following: obtaining patient

The University of Texas Health Science Center at San Antonio 219
Duty Hours Policy for Medical Students

I. Purpose

1. To assure that academic evaluation/progression are independent from confidential or protected health information.

2. To ensure that individuals charged with academic evaluation/progression base their decisions on agreed upon performance measures.

3. To assure that medical students can obtain and receive private and confidential medical care from the Student Health Center and/or psychological/psychiatric care from the Counseling Services, and that health care providers of sensitive medical or psychological/psychiatric care to medical students have no role in evaluation/progression of medical students through the academic curriculum.

II. Policy

The UT School of Medicine at San Antonio (SOM) is committed to providing an educational environment that is supportive and respectful
to its faculty, staff and students. This policy is established to ensure that students are evaluated based on common agreed upon performance measures that are independent of confidential or protected health information. This is essential to ensure that student academic performance is evaluated properly and to ensure that students are not discouraged from seeking medical and/or psychological/psychiatric care that is held in the strictest standards of patient privacy and confidentiality, without concern for consequent adverse actions or repercussions.

Students and health care providers should follow these procedures to make certain that the appropriate care is sought and provided.

Health care professionals who provide medical and/or psychological/psychiatric care to medical students must:

1. have no role in the formal academic or professionalism evaluation of medical students at the present or future time.
2. have no role in advancement/progression/graduation of medical students at the present or future time.
3. recuse himself/herself from the formal academic or professionalism evaluation of medical students and from academic or professionalism decisions of advancement/progression/graduation of medical students, if a dual relationship with medical students is anticipated or is discovered, and, when appropriate and without breaching confidentiality, alert a Dean for Student Affairs immediately.

Students should:

1. seek medical care through the Student Health Center (Room 1.422 Nursing Building). This medical care is usually provided by Registered Nurses or Advanced Nurse Practitioners under the supervision of the Student Health Center Medical Director. The health care providers in the Student Health Center may refer medical students to other academic or community health care providers for further/follow-up care.
2. seek psychological/psychiatric care through the Counseling Services (Room 101F Medical School). A multidisciplinary staff, who is not involved in academic or professionalism evaluation and/or decisions of advancement/progression through the curriculum, provides evaluation and short-term treatment including counseling, psychotherapy, and medication management when necessary to medical students with mental health, situational, social, or academic concerns. The health care providers in the Counseling Services may refer medical students to other academic or community health care providers for further/follow-up care.
3. inform staff in the Student Health Center and the Counseling Services that they are students at the SOM.

Student Employment
Because of the intensity of the medical curriculum, students are encouraged to refrain from outside employment during the academic year. Students who feel employment is essential are advised to consult with a Dean for Student Affairs before accepting employment offers. Some opportunities for employment are available for students in good academic standing such as tutoring through the Office of Undergraduate Medical Student Education.

Student Governance
Class officers are responsible for the management of class activities and are the official class representatives in interaction with the administration of the UT School of Medicine at San Antonio (SOM) and UT Health Science Center at San Antonio (HSC). In addition to the usual slate of officers, two students from each class are elected as representatives to the Student Government Association.

Elections are held in the spring to choose officers and representatives for the next academic year. In the case of the first year class, elections occur in October. Elections are supervised by the Office of Student Affairs.

Committees of the SOM and the HSC (both standing and ad hoc) have student representation. Appointments to SOM committees are approved by the Deans in the Office of Undergraduate Medical Education and those to HSC committees by the Vice President for Academic, Faculty and Student Affairs upon recommendation from the Deans for Student Affairs. The following committees have student representation:

SOM Committees:
- Admissions
- Curriculum
- Student Affairs Advisory Committee

HSC Committees:
- Campus Health and Wellness
- Computing Resources
- Infection Policy and Education
- International Relations
- Library
- Parking & Traffic Safety
- Student Governance Association
- Student Health Advisory

Organization of Student Representatives
The Organization of Student Representatives (OSR) is the organizational entity of the Association of American Medical Colleges (AAMC) which deals specifically with medical student issues. This is a national organization that addresses issues common to students from all medical schools. Individual input from each school is through the class representative to the OSR. That representative is selected through the Office of Student Affairs. The selection of each class representative will occur during the second semester of the first year. Each representative serves through the fourth year.

Medical Student Organizations
Medical Student Organizations must be approved by the Office of Student Affairs and managed by the Office of Student Life in Student Services. Contact the Office of Student Life for more information on the varied organizations in which students can participate.
Scholarships

Scholarship assistance may be available within the UT School of Medicine at San Antonio (SOM). Scholarships are awarded based on need, merit, or a combination of both. The SOM determines the selection of scholarships based on criteria established by the donor. Scholarships may be renewable depending upon academic performance and/or stated scholarship conditions.

The student will apply for scholarships online through the student portal. The student must have filed the Free Application for Federal Student Aid in order to be considered for scholarships. The SOM Scholarship Committee will make recommendations for selection of candidates for scholarships; these recommendations will be forwarded to the Office of Financial Aid and Veterans Affairs for processing to student accounts. If the student receives a scholarship, after he/she has been fully awarded, the Office of Financial Aid and Veterans Affairs may need to reduce other aid on the account in order to prevent an over-award of federal funds.

Master of Deaf Education and Hearing Science

The Master of Deaf Education and Hearing Science Program, nationally certified by the Council on Education of the Deaf, was created in 2002 in order to provide graduate students in deaf education and medicine the opportunity to build the relationships needed to provide quality services to children with hearing loss. This program is one of only a handful in the country that provides intensive training in how to help children with hearing loss develop spoken language through the use of residual hearing, high-powered hearing aids and modern surgical procedures such as cochlear implants.

Certified teachers for children with hearing loss are in high demand. Every year positions across the nation go unfilled because of the lack of qualified professionals. In Texas alone, 20-30 teacher vacancies go unfilled annually. If you have an interest in children, language and communication, and a bachelor’s degree already, the Master of Deaf Education and Hearing Science could be the next step in your career. There are generous tuition scholarships available.

Master of Deaf Education and Hearing Science Admissions Requirements

Application for admission to Master of Deaf Education and Hearing Science (http://www.uthscsa.edu/shp/dehs) program may be completed online at https://www.applytexas.org/adappc/commonapp.WBX. Detailed information about application and admission is available from the Application Center at (210) 567-2633. Completed application, application fee, official transcripts, and supporting documents must be submitted between September 1 and February 15.

All required admissions information and documents must be submitted to the department before an applicant is considered for admission. Because applications and documents are reviewed as they are received, applicants are encouraged to apply early in the application period. Classes begin in the summer semester each year.

Admission Factors

In addition to the academic factors listed below, the following non-academic factors are considered for selecting students for the Master of Deaf Education and Hearing Science:

- Bilingual ability
- Race/ethnicity
- Hometown or county of residence that has been designated a medically under-served and/or health professions shortage area, especially South Texas
- Employment history, especially as it occurred simultaneously with undergraduate academic preparation
- Positions of leadership held
- Public/community service or volunteer activities
- Volunteer activities in education-related areas
- Prior experience in providing educational-related services
- Extracurricular activities
- Communication skills – as demonstrated in the essay and personal interview
- Commitment/desire to serve in an underserved region of the state following graduation
- Reference letters or recommendations
- Research accomplishments
- Future goals
- Knowledge of, and preparation to enter, the profession of deaf education gained through observing or volunteering in a school setting or other setting
- Personal disability condition

Admission Requirements

To be admitted to the MDEHS (http://www.uthscsa.edu/shp/dehs) program, applicants must have earned a baccalaureate degree from an accredited college or university, with an overall grade point average of 3.0. Incoming students must have completed a baccalaureate degree in education or a related field. Depending on the applicant’s background, collateral coursework in Curriculum and Instruction from another college or university may be required. In addition, 50 hours of classroom observation and 25 hours of field experience may be required.

Master of Deaf Education and Hearing Science Degree Requirements

State Certification

Deaf Education and Hearing Science is a profession requiring certification in teaching hearing-impaired children. State of Texas Certification examinations are administered through the State Board of Educator Certification (SBEC) (http://www.sbexc.state.tx.us/SBECOnline/default.asp). All students who enter the program already holding teacher certification must pass the Texas State Certification Examination (http://www.texas.ets.org/texas): Hearing Impaired #181, K–12 (ExCET). Students who enter the program as non-teachers must also become certified as teachers in Texas and must pass the Pedagogy and Professional Responsibilities Exam, EC–12 (http://www.texas.ets.org/cat) (TexES). The MDEHS program is nationally accredited through the Council on the Education of the Deaf (CED) (http://www.deafed.net/
It is highly recommended that students apply for certification through CED as well.

### Master of Deaf Education and Hearing Science Sample Plan of Study

#### First Year

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#### Second Year

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<td>DEHS 6099</td>
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</table>

**Total Credit Hours:** 37.5

### Deaf Education Program Grading System

#### Grades

The standing of students in their work is expressed by the following grades:

- **A** = Excellent
- **B** = Above Average
- **C** = Average
- **D** = Below Average
- **F** = Failure

Grades for courses in which performance is graded an S (Satisfactory) or U (Unsatisfactory) are not used in computing the grade point average. The symbol I (incomplete) may be recorded for a student who has not completed course assignments at the conclusion of the course.

In some programs, students have the option of seeking exemption from certain courses in the curriculum if they have successfully completed an equivalent course in the curriculum at another college or university or content in an examination. The symbol CR (Credit) is recorded for a course(s) for which the student has been exempted.

#### Grades in Clinical Rotations, Practicums, and Fieldwork Courses

Clinical Rotations, Practicums, and Fieldwork Courses may be graded S (Satisfactory) or U (Unsatisfactory), or may be assigned a letter grade, depending on the Departmental policy.

A grade of S or other designation of an acceptable grade is assigned if the student successfully satisfies the criteria for clinical courses. Failure to successfully satisfy the course criteria may result in an I (Incomplete) or a U (Unsatisfactory) or a letter grade considered unsatisfactory based on departmental policy.

Criteria and time frame for removal of an I or U or other unsatisfactory grade in clinical courses are determined based on clinical documentation and consultation with the clinical supervisor/clinical instructor, not to exceed one full calendar year. An I or U or other unsatisfactory grade may require that the student complete an additional clinical affiliation or other remediation that could extend the professional curriculum beyond the expected graduation date. More than one unsatisfactory grade is not allowed within the total clinical course sequence.

### Master of Deaf Education and Hearing Science Objectives/Program Outcomes

The MDEHS (http://www.uthscsa.edu/shp/dehs) program is based on, and committed to, teaching future teachers of the deaf the auditory-oral methods of intervention/education for children with hearing loss, as stated in the Auditory-Verbal Position Statement published by the Board of Directors of Auditory-Verbal International.

In addition, the program’s philosophy encompasses the following educational assumptions:

- Many profoundly deaf children can obtain an excellent education in an auditory-oral or auditory-verbal environment;
- At some time during the educational years, it is desirable that a child with hearing loss attend school with her/his hearing peers;
- Applicants with a baccalaureate degree in education or related fields can become effective teachers of the hearing impaired through application of previously gained knowledge and skills plus the acquisition of procedures, techniques, and information unique to the hearing-impaired child. The MDEHS curriculum addresses topics and skills required for Texas teacher certification and national certification.

Each child with a hearing loss is a unique combination of learning styles, degrees of and adjustment to a hearing loss, motivation toward learning, home and community experiences, intellectual abilities, and personal responses to the environment. A dually prepared teacher is in an enviable position of being able to identify these factors and create a learning setting that would permit maximum attainment not only by the child with a hearing loss but also the typically developing children.
School of Nursing

History

The University of Texas Health Science Center at San Antonio School of Nursing was established in 1969. The School of Nursing (http://nursing.uthscsa.edu) was originally part of The University of Texas System School of Nursing with campuses in Galveston, Austin, Houston, San Antonio, El Paso and Tyler. All five schools followed the same curriculum. In 1976 the System School of Nursing was dissolved and each School of Nursing has since been independent and governed by the university on the campus where the school is located.

The School of Nursing (http://nursing.uthscsa.edu) offers four degree programs, a Bachelor of Science in Nursing (BSN), Master of Science in Nursing (MSN), Doctor of Nursing Practice (DNP), and Doctor of Philosophy (PhD).

The School of Nursing (http://nursing.uthscsa.edu) has a unique role in nursing education related to its placement in the South Texas Region. The region has large underserved populations with different health care needs. Cardiovascular disease, diabetes, teen pregnancy, mental illness and other chronic conditions are prevalent. We have been designated by the United States Department of Education as a Hispanic Serving Institution.

Mission

We engage with our diverse students and communities to produce the future nursing leaders who will impact local and global health and lead the transformation of health care to make lives better through education, research, practice, and community engagement.

Vision

The University of Texas Health Science Center at San Antonio School of Nursing acts as an integral part of the healthcare team to promote excellent healthcare as an act of social justice for individuals and their diverse communities through education, research, practice and community engagement.

Values

1. Ethics and Accountability - We believe physical, mental and social well-being is enhanced with high professional standards, by honoring the dignity of others, and through accountability for our actions.
2. Diversity and Excellence - We believe excellent health care is a right of every person.
3. Innovation - We believe in innovation to deliver leading edge health care, education, research, and community service.
4. Education - We believe education is a lifelong process based on mutual teaching, learning, and research that ultimately makes life better for those we serve.
5. Leadership - We believe through our leadership we can educate organizations and within our communities to adopt practices and policies that promote health.
6. Health - We believe in the power of professional nurses to improve the health status of people here and abroad.
7. Inter-professional Collaboration - We believe in the power of inter-professional collaboration to improve health outcomes.

Goals

- **Education**: Educate a diverse student body to become excellent nurses and nurse scientists.
- **Research**: Engage in research to increase knowledge about health and disease and health care delivery and to commercialize discoveries beneficial to the public.
- **Health Care**: Provide exemplary, innovative, culturally proficient nursing care to our local and global communities.
- **Community Engagement**: Make a significant impact on the health of our local and global community.
- **Organizational Effectiveness**: Provide an effective, efficient and culturally proficient infrastructure which embodies innovation, quality and professionalism to support faculty, staff and students as they fulfill the mission of the School of Nursing.

The School of Nursing (http://nursing.uthscsa.edu) mission, values, and vision are written and published on the School of Nursing web site (http://nursing.uthscsa.edu/about/mission.aspx) and relates to all programs. The School of Nursing goals are incorporated into the strategic plan (http://nursing.uthscsa.edu/about/strategicPlan.aspx). Both are accessible to current and prospective students. The mission, vision and goals are each congruent with those of the Health Science Center (http://strategicplanning.uthscsa.edu). They are consistent with relevant professional standards and nursing guidelines to prepare students for beginning and advanced nursing practice.

Accreditation

The UT Health Science Center San Antonio School of Nursing (http://nursing.uthscsa.edu)’s baccalaureate program is approved by the Texas Board of Nursing (http://www.bne.state.tx.us), P.O. Box 430, Austin, Texas 78767-0430, (512) 305-6818. The Bachelor of Science in Nursing degree program and the Master of Science in Nursing degree program have received full accreditation through 2021. The Doctor of Nursing Practice is currently under review for initial accreditation by the Commission on Collegiate Nursing Education (CCNE).

Commission on Collegiate Nursing Education (http://www.aacn.nche.edu/Accreditation)
One Dupont Circle NW, Suite 530
Washington, D.C. 20036-1120
(202) 887-6791
http://www.aacn.nche.edu/Accreditation/

School of Nursing Policies and Regulations

Policy on Criminal Background Checks

Applicants must submit and satisfactorily complete a designated criminal background check as a condition of admission. An offer of admission will not be final until the criminal background check(s) is received and deemed favorable. Admission may be denied or rescinded based on results of the background check. In addition selected agencies where students pursue clinical experiences, may require that students placed in their agencies pass an additional criminal background check before being allowed to practice in their facilities.

Undergraduate Criminal Background Check

The Texas Board of Nursing (TBON) (http://www.bne.state.tx.us) conducts the background checks and has legally granted power to deny permission
for a candidate to take the NCLEX-RN (https://www.ncsbn.org/nclex.htm) examination if it is demonstrated that the individual has not demonstrated “good professional character.” The Board may refuse to:

- Approve persons to take the licensure examination.
- Issue or renew a license or certificate of registration to any individual who has been convicted of a felony, a misdemeanor involving moral turpitude, or engaged in conduct resulting in revocation of probation imposed pursuant to such conviction.

All nursing students must continue to show evidence of good professional character while enrolled in a nursing program.

Candidates with a positive background check will also be notified by TBON and asked to submit a petition for a “Declaratory Order.” The petition will be reviewed by the TBON. Please contact the Office of the Associate Dean for Admissions and Student Services.

Continuing students who are charged or convicted of an offense while enrolled in the nursing program will be required to notify the Associate Dean for Academic Affairs at the time of the offense and to petition TBON for a declaratory order. The student will be removed from clinical courses while obtaining the Declaratory Order, and may need to take a Leave of Absence. Failure to report any new incidents following the initial background check to the School may potentially cause the student to be dismissed from the program. The Board investigates each incident based on its own information. Many of the factors used by the Board can be viewed online (http://www.bon.texas.gov/disciplinaryaction/discp-guide.html).

Graduate Criminal Background Check

The School of Nursing (http://nursing.uthscsa.edu) Office of Admissions and Student Services will designate an approved company to conduct the background checks for graduate students who are already licensed as a Registered Nurse. Results from a company other than those designated will not be accepted. Students and applicants must contact this designated company and comply with its instructions in authorizing and obtaining a background check. Applicants are responsible for payment of any fees charged for the certified criminal background check.

Non-Nursing Students Criminal Background Check

Non-Nursing students who wish to take a non-clinical course(s) offered at the School of Nursing (http://nursing.uthscsa.edu) must satisfy the Health Science Center criminal background check requirements. The School of Nursing (http://nursing.uthscsa.edu) Associate Dean for Admissions and Student Services will verify with appropriate entities on behalf of the student for the acceptable background checks.

Immunization and Health Insurance

Prior to registration all students are required to complete the immunizations requirements and fill out an immunization card. For more information on immunizations see HSC Student Health Clinic. See Student Services - Health Insurance (http://studentservices.uthscsa.edu/gi_liability.aspx).

Professional Liability Insurance

Students enrolled in programs that involve direct patient care activities are required to purchase professional liability insurance through the university. Liability insurance purchased through the Health Science Center is applicable to the student role only. Nurse practitioner students are required to pay an additional insurance fee. See Student Services - Liability Insurance (http://studentservices.uthscsa.edu/GI_liability.aspx) for more information.

Computer Requirement

All courses in the School of Nursing have an online component or other requirements that necessitate the use of a computer. Students are required to have certain minimum computer competencies. Minimum competencies include basic familiarity with computers, use of Internet, word processing, email and presentation software. The official method of communication is via students’ Health Science Center “livemail” account.

All students admitted into the School of Nursing (http://nursing.uthscsa.edu) undergraduate program will be required to purchase a laptop computer from the Health Science Center when entering the program. Windows-based and Apple platforms are available. The computer will be formatted with standard programs and online learning resources.

Graduate students are expected to have a computer that meets specifications for the School of Nursing.

Specifications can be found online (http://nursing.uthscsa.edu/students/newAdmits.aspx).

The Microsoft Office Suite, which includes Word, Excel, PowerPoint, and Outlook, is available to students through the bookstore at a significant savings. The most up-to-date version of the suite is available for Windows and Mac. This software is required for all students.

Financial Aid

To determine eligibility for federal, state and private sources of financial aid, please visit The Office of Veterans’ Services and Financial Aid (http://studentservices.uthscsa.edu/financialAid.aspx).

Scholarship and Stipends

For School of Nursing (http://nursing.uthscsa.edu) Scholarships, undergraduate and graduate nursing students are encouraged to 1) submit a Free Application for Federal Student Aid Form (FAFSA) and 2) a School of Nursing (http://nursing.uthscsa.edu) Scholarship application, which must be completed every semester. Students can access scholarship applications by logging into the Student Portal during March for fall awards, October for spring awards, and March for Summer awards effective Fall 2013. New students submit scholarship applications with their admission paperwork. The School of Nursing Scholarship Advisory Group reviews all applications and selects recipients based on criteria for each scholarship. Scholarship recipients are required to provide a thank you note for the donor and to attend a yearly reception.

For graduate stipends, please consult the School of Nursing (http://nursing.uthscsa.edu) Office of Admissions & Student Services and the Office for Academic Affairs.

The School of Nursing Office of Admissions and Student Services works collaboratively with The Office of Veterans’ Services and Financial Aid (VSFA) to facilitate identification of federal, state and private funding sources. Click here (http://studentservices.uthscsa.edu/financialAid.aspx) to view services available through VSFA and the process for applying for financial aid.

Please be aware that a Free Application for Federal Student Aid (FAFSA) must be completed annually. Click here (http://www.fafsa.ed.gov) to apply for all federal/state grants and student loans. The Renewal FAFSA (https://
Independent Study

Students may design their own Independent Study course for one to three semester hours of credit. Guidelines for design and approval of Independent Study are available from the Academic Coordinator for undergraduate or graduate program in the Office for Academic Affairs in the School of Nursing (http://nursing.uthscsa.edu). The Committee on Undergraduate Studies or Committee on Graduate Studies must approve the Independent Study before a student can register for the course. Requests for approval of Independent Studies are due to the appropriate committee by April 15 for summer and fall semesters and October 15 for spring semesters.

Full time/ Part Time Statuses

Undergraduate students enrolled for a minimum of 12 semester credit hours (SCH) in the fall and spring semesters or 6 SCH in the summer are considered full-time students. Students enrolled in less than 12 SCH are classified as part-time.

Graduate students enrolled for a minimum of 9 semester credit hours (SCH) in the fall and spring semesters and 6 SCH in the summer, are considered full time students. Students enrolled in less than 9 SCH in fall and spring or less than 6 SCH in the summer are classified as part-time.

Students may not change their program plan from part-time to full-time or vice versa without consultation with the appropriate Program Director. All requests for change will be based upon space available in the requested course(s), and availability of courses.

Course Numbering

Each course consists of a prefix that represents the discipline (NURS for Nursing) and a 4-digit number. The School of Nursing uses the following numbering system:

- The first digit is the Level of course: 1 = Freshman, 2 = Sophomore, 3 = Junior, 4 = Senior, 5 = Introductory Graduate, 6 = Advanced Graduate, 7 = Doctoral.
- The second digit is number of semester credit hours (0 = variable semester credit hours). The third and fourth digits distinguish one course from another within the discipline.

The Semester Credit Hour

The unit measure for credit purposes is the semester credit hour (SCH). One semester credit hour of credit is given for each 15 clock hours of lecture and 45 clock hours of clinical/laboratory.

Adding and Dropping Courses

Students are expected to pre-register for all course work. After the first day of classes and prior to census day student may add classes with the approval of the appropriate Program Director.

Dropping refers to the procedure by which students remove themselves from one or more of the courses in which they are enrolled while continuing in the remainder of their courses. A student who is enrolled in only one course must either withdraw or apply for a leave of absence if he/she intends to drop the course. Please refer to the Office of the Registrar’s section of this catalog.

Voluntary Withdrawal

Withdrawal refers to the procedure by which students voluntarily remove themselves from all courses in which they are enrolled. Withdrawal from all courses constitutes withdrawal from the nursing program and university unless the student is granted a leave of absence. A student wishing to withdraw from one or all courses in the School of Nursing initiates the process through consultation with the Associate Dean for Academic Affairs. When approved, the student must obtain a drop slip for said course, and, if withdrawing from the program, complete the Student Clearance Form from the Office of the Registrar (317L MED). Failure to clear campus appropriately will affect the students’ ability to obtain transcripts, be readmitted to the program in the future, or obtain financial support.

A student who completes a semester, but does not plan to continue in the School of Nursing during the next semester, must withdraw or apply for a leave of absence.

A student who discontinues class attendance in any course without completing the formal drop or withdrawal process will receive a grade of withdraw fail (WF) for the course. See policies for administrative Leave of Absence (LOA) in HSC catalog. An application for readmission by a student who has previously withdrawn is subject to the same requirements, procedures, and acceptance considerations that apply to first-time applicants.

If a student withdraws from a required nursing course while failing, he or she may reenroll only once, if readmitted. Readmission is based on a space available basis (See Repetition of a Failed Course).

Procedures for Dropping a Course or Withdrawal

If a student withdraws from school or drops a course prior to the first examination/graded assignment, a grade of W will be recorded. If the student drops after the first examination/graded assignment, either withdraw pass (WP) or withdraw fail (WF) will be recorded based upon the student’s performance in graded activities. The WP or WF will appear on the student transcript. The following procedures are to be followed:

The student discusses dropping with the clinical/course faculty. The student makes an appointment with the Associate Dean for Academic Affairs and/or appropriate Program Director through the Office for Academic Affairs to discuss the decision, explore options, and make necessary changes to the degree plan. The student will have to have an official drop form signed by the course coordinator/course faculty after the form has been provided and signed by the Academic Associate Dean for Academic Affairs and/or appropriate Program Director.

The Office for Academic Affairs will submit the completed official drop form to the Office of the Registrar and will notify the Registrar and Financial Aid office of the change in status and change in the student’s graduation date.

Leave of Absence

Any student who is in good standing (passing all required courses with a 2.0 or above GPA in undergraduate program or 3.0 in the graduate program; no incomplete grades in a course, and no failures) may, under special circumstances, take a leave of absence. A leave of absence may be granted for a maximum period of one year.
Students who are experiencing special circumstances that hinder their studies or students who receive an "F" or a "WF" in a required undergraduate course that is offered only once a year should make an appointment through the Office for Academic Affairs to discuss their issues with the Associate Dean for Academic Affairs and/or the appropriate Program Director.

If together the student and the academic administrator agree that a leave of absence is appropriate, the student will be sent to The Office of the Registrar to obtain the required Student Clearance Form. The student will “clear campus.” Failure to clear campus appropriately will affect the students’ ability to obtain transcripts, be readmitted to the program in the future, or obtain financial support.

The student may return to school at any time during the year, but no later than one year from the time when the leave started. The student must notify the Office for Academic Affairs at least three months prior to returning to campus. Return to school will coincide with the beginning of a semester. Courses that had not been completed at the time of initiating the leave will have to be repeated in total. Students who do not return from leave within the one-year limit will be withdrawn from the nursing program and will have to apply for admission as a new student.

**Incomplete Grades**

A student may be granted a grade of “Incomplete” (I) for a course when the student is unable to complete all course work within allotted semester time under certain special circumstances. The student wishing to petition for extended time to complete course requirements must request the extension, incomplete grade, from the faculty.

An Agreement for a Grade of Incomplete form must be signed by both the student and the course instructor and/or course coordinator. Forms are available in the Office for Academic Affairs. The faculty may consult with the Associate Dean for Academic Affairs and/or the appropriate Program Director regarding the effect of granting a grade of "I" on the student’s progression in the nursing program. Students have up to one calendar year to complete course work that is incomplete. However, if the incomplete course is a pre-requisite to another course, progression in the program will be delayed. If the course is a required course, the student will not be allowed to progress in the program until the incomplete grade has been removed and a letter grade substituted. Once the coursework is completed, the faculty member must complete a Change of Grade Report Form. If coursework is not completed by the designated date, the course grade of “I” will be converted to an “F”.

**Intra-semester Report**

At the middle of each semester, the faculty reports the names of students doing work below the passing grade to the Associate Dean for Academic Affairs. Undergraduate students are referred to Juntoos Podemos and the Associate Dean for Admissions and Student Services for advising. Graduate students may be referred to the appropriate Program Director. Students who are failing will receive a midterm fail notice outlining possible approaches for remediation.

**Conduct and Discipline**

Students are responsible for knowing and observing the University’s procedures and regulations governing Student Conduct and Discipline and the Rules and Regulations of the Board of Regents. In addition to these regulations, standards of professional conduct may be set by each school of the Health Science Center.

In summary, the regulations provide that: Violations of university regulations concerning standards of conduct which compromise professional integrity and/or competence shall be dealt with under Student Conduct and Discipline. The chief student affairs officer shall have responsibility for the administration of discipline in areas not directly related to the academic or professional training of the student. Procedures described in the Student Conduct and Discipline Policy of the Health Science Center will be followed.

The Associate Dean for Admissions & Student Services of each school shall have the responsibility for the administration of discipline in cases concerning scholastic dishonesty and professional misconduct. The processes afforded a student subject to disciplinary sanctions are governed by Series 50101 of the Rules and Regulations of the Board of Regents of The University of Texas System and the Health Science Center’s Student Conduct and Discipline Policy.

**Professional Conduct Guidelines**

The goal of the School of Nursing (http://nursing.uthscsa.edu) is to create nursing professionals who can access and critically examine a reliable and extensive body of knowledge and apply it consistently to maximize the clinical benefit of patients. School of Nursing (http://nursing.uthscsa.edu) students are expected to demonstrate academic professionalism and honesty, and to maintain the highest standards of integrity according to the Board of Regents (http://www.utsystem.edu/BOR/rules/50000Series/50101.pdf) that embodies a spirit of mutual trust and intellectual honesty. The University of Texas Health Science Center School of Nursing Code of Conduct Document has established that nursing students have certain rights and responsibilities, and serves as an affirmation that students are a party to the social trust shared by all in the university community.

The School of Nursing (http://nursing.uthscsa.edu) follows the recommendations of the American Nurses Association Code of Ethics for Nurses as well as the Texas Board of Nursing, Nurse Practice Act. Professional behaviors include application of the nursing process, providing care and counsel, or health teaching to persons experiencing alterations in health based on synthesis of knowledge and understanding of basic scientific principles (Texas Board of Nursing, Rules and Regulations Relating to Nurse Education Licensure and Practice, February, 2012).

A code of professional behavior cannot encompass all potential issues of conduct which may arise. Therefore, it is impossible to specify all behaviors deemed to be unprofessional. Students are expected to hold themselves and their peers to professional standards of behavior throughout their course of study. Included among these standards are five fundamental values of academic integrity including honesty, trust, fairness, respect and personal accountability. The principles in the code of professional conduct as outlined in the School of Nursing (http://nursing.uthscsa.edu) document signed by all students upon enrollment in the School of Nursing (http://nursing.uthscsa.edu) should be reinforced throughout the curriculum.

**Professionalism**

Principles of professionalism are not rules that specify behaviors, but guidelines to provide direction in identifying appropriate conduct. These principles include the safety and welfare of patients, competence in knowledge and skills, responsibility for consequences of actions, professional communication, confidentiality, and lifelong learning for maintenance of professional skills and judgments. Professionalism and professional ethics are terms that signify certain scholastic, interpersonal
Students Rights and Responsibilities

Each individual student is responsible for their behavior and is expected to maintain standards of academic honesty. Students share the responsibility with faculty for creating an environment that supports academic honesty and principles of professionalism. Proper relationships between faculty and students are fundamental to the School of Nursing (http://nursing.uthscsa.edu) function and this relationship should be built on mutual respect and understanding together with shared dedication to the education process. It is a fundamental belief that each student is worthy of trust and each student has the right to live in an academic environment free of injustice caused by dishonesty. While students have an obligation to assist their fellow students in meeting the common goals of their education, students have an equal obligation to maintain the highest standards of personal integrity.

Faculty Responsibilities

It is the responsibility of the faculty to specify in their syllabi the limits of acceptable resources that may be used for the purposes of the course. It is the responsibility of students to honor and adhere to those limits. The faculty should establish with the students what is considered to be academic dishonesty. Encouragement of group work varies greatly. Faculty shall convey to their students the acceptable level of individual versus collaborative work. Faculty, students, and administrators share the responsibility for creating an environment that encourages academic honesty.

Social Media Guidelines

The purpose of this policy is to promote the safety and privacy of students, faculty, staff, patients, and visitors. Students and faculty members must comply with the Health Insurance Portability and Accountability Act (HIPAA) and the Family Educational Rights and Privacy Act (FERPA) when using social media. These guidelines are informed by the American Nurses Association (http://www.nursingworld.org) Principles for Social Networking and the Nurse.

No student may post, release, or otherwise disclose photos, identifiable case descriptions, images, or records related to the educational, clinical, or research activities of the school via social networking sites (e.g., MySpace, Facebook, Twitter, YouTube, etc.), non-educational blogs, message boards, Internet websites, personal e-mail, or anything other than standard professional means of query and/or dissemination.

No student may post statements about the School of Nursing community (employees, staff, students, and visitors) that are defamatory, obscene, threatening or harassing.

Failure to comply with this policy may be a violation of legal, professional, and/or ethical obligations. Violation will result in disciplinary action by the School of Nursing up to and including dismissal from the professional nursing program.

The School of Nursing (http://nursing.uthscsa.edu) assumes no duty to monitor Internet activity but reserves the right to take appropriate action in accordance with this policy.

Think twice before posting

Privacy does not exist in the world of social media. Before each posting, students are encouraged to consider how the item may reflect both on the author of the post and the School of Nursing. Something that would not be said in person should not be posted in social media. Imagine your posting on the front page of the local newspaper.

Strive for accuracy

Students should be certain that anything they post on a social media site is factual. The posting should be reviewed for grammatical and spelling errors, especially when posting on behalf of the School of Nursing.

Be respectful

Posted responses and comments should be respectful and considerate.

Photography

Students should be aware that photographs posted on social media sites can easily be accessed by visitors to those sites. Posting unauthorized photos on a website or social media network site can result in disciplinary action.

Rules

It is important to review the terms of service, privacy settings, and other policies of the social media network before use.

Scholastic Dishonesty

Nursing students are expected to maintain an environment of academic integrity. Actions involving scholastic dishonesty violate the professional code of ethics and are disruptive to the academic environment. Students found guilty of scholastic dishonesty including but not limited to plagiarism, falsification, sharing exam items, and misrepresentation violate the professional code of ethics and are subject to disciplinary action, including dismissal from the school.

Both professional misconduct and scholastic dishonesty are governed by the guidelines contained in the procedures and regulations governing Student Conduct and Discipline of the Health Science Center (http://www.uthscsa.edu) contained in this Catalog. Any nursing student who fails to demonstrate to the faculty the intellectual, ethical, or behavioral attributes necessary for a member of the nursing profession is subject to disciplinary action, including dismissal.

Graduation

Official commencement ceremonies are held each year in December and May. Graduates may not participate in commencement prior
to completion of their program. Official School of Nursing (http://nursing.uthscsa.edu) graduation invitations are ordered at the Bookstore (http://uthscsa.bncollege.com/webapp/wcs/stores/servlet) on the Health Science Center’s (http://www.uthscsa.edu) Long campus.

Graduates of the PhD program are hooded at the Graduate School of Biomedical Sciences commencement in May. Students are invited by the School of Nursing to attend and be recognized at the School of Nursing commencement.

Commencement is considered an important event which is steeped in tradition; therefore, we request graduates to adhere to the academic ceremonies protocol.

**Student Concerns**

**Academic Appeals and Grievances**

Student academic appeals and grievances are handled through established policies and procedures for the School of Nursing (http://nursing.uthscsa.edu) as outlined in the General Regulations and Requirements section of this Catalog.

The Associate Dean for Admissions and Student Services is available to explain, discuss, and facilitate this process with students and refer as appropriate to the Associate Dean for Academic Affairs and/or Program Director. This office also deals with issues directly related to other student life concerns, including, governance, mentoring, counseling and resource needs, Americans with Disabilities Act (ADA), Equal Employment Opportunity Coordinator (EEOC) and concerns related to harassment, threat, or violence.

**Procedure for Academic Review**

**Section I: Purpose of Procedure**

The purpose of Academic Review is to provide the student who has a concern about grades with the opportunity to pursue the concern through administrative channels if initial discussions with the faculty member/s who assign the grades are not perceived as fair or equitable. A grievance is an accusation or complaint about a grade or unfair action regarding academic achievement in the nursing program. The student has the right to grieve a grade or unfair action if the student’s perception is that the grade received does not accurately, fairly or appropriately reflect the student’s performance.

A student may grieve grades on the following:

1. Clinical performance
2. Papers
3. Projects
4. Examination
5. Course

The student may appeal the same grade only once. From the time the grade is released, the student has 10 business days to initiate Step 1 of the grievance procedures. A grievance is not the same as a request for a second reader of a graded paper. Confidentiality is essential for all academic review/grievance procedures. Students may seek counsel or advice concerning the academic review process from the Associate Dean for Admissions and Student Services.

**Section II: Procedure to be followed**

Prior to initiation of an academic review or grievance, the student must contact the faculty involved to discuss the concern. If resolution is not achieved, the student may pursue an academic review or grievance.

**Grade Appeal Process**

**Step 1**

1. A written petition must be submitted by the student to the faculty of the class. This petition should contain:
   A. name of student
   B. course
   C. grade which is being challenged
   D. dates student received grade
   E. name of faculty member/s involved
   F. dates student met with the faculty
   G. student’s reason for grieving the grade and a brief statement of the student’s concerns.

2. Within seven business days (unless there are special circumstances, such as progression in the program, that require more rapid action), the faculty will respond to the student in writing with a decision. For the purpose of this grades appeals process, business days are established by the Health Science Center.

3. The student should retain a copy of the documents submitted for his or her records.

4. If the student concern is not resolved by the faculty in charge of the course then the grievance moves on to Step 2.

**Step 2**

1. A written petition will be submitted by the student to the Associate Dean for Admissions and Student Services who will engage the appropriate Associate Dean for Academic Affairs.

2. The petition should contain the same information included in Step 1.

3. The appropriate Associate Dean or Program Director will review the grievance.

4. An informal hearing with the student filing the grievance may be called if the student, faculty, Associate Dean, or Program Director feels it would be beneficial to discuss the complaint.

5. Within seven business days (unless there are special circumstances, such as progression in the program, that require more rapid action), the appropriate Associate Dean for Academic Affairs will respond to the student in writing with a decision. A written copy of the decision will also be provided for the faculty in charge of the course for which the grade is grieved.

6. If the student is not satisfied with the decision, the grievance may proceed to Step 3.

**Step 3**

1. The written petition, including the same information as listed in Step 1, will be submitted by the student to the Associate Dean for Admissions and Student Services who will brief and forward the petition to the Dean of the School of Nursing.

2. Information supporting the decision in Step 2 should also be forwarded to the Dean by the Associate Dean for Admissions and Student Services. This petition should contain the nature of the problem as stated in Step 1. A statement that an attempt was made to resolve the issue directly with both the faculty and/or the Associate Dean for Academic Affairs must be included.
3. The student should keep a copy of the documents submitted for his or her record.

4. The Dean may convene an impartial (e.g.: faculty who are outside the course or the department and a student) Grades Appeals Committee (GAC), which shall serve in an advisory capacity to the Dean. The manner of appointments and the number of members on the GAC shall be determined within the School of Nursing. The Chairperson of the GAC shall be appointed by the Dean. A decision will be made within seven business days unless there are special circumstances, such as progressions in the program, that require more rapid action. The Chairperson of the GAC will make a recommendation to the Dean. The Dean will respond to the student in writing with a decision. A copy of the document stating the recommended decision will be sent to the faculty in charge of the course and the Associate Dean for Academic Affairs.

- The decision of the GAC will be directed specifically to the charge (grade is indicative of the student’s achievement or the grade is not indicative of the student’s achievement). A rationale will be provided. If the GAC recommends reconsideration of the grade, the faculty member will consider the recommendation and inform the student and the Associate Dean for Admissions and Student Services of the action within seven business days unless there are special circumstances, such as progressions in the program, that require more rapid action.
- A written report of the review is provided to the Associate Dean for Admissions and Student Services following the recommendation. The written record will be maintained in compliance with the records retention policy.
- The timeline for meetings of the GAC will be conducted under the HSC regular hours of operations. Under unusual circumstances deadlines may be extended.

Procedure for Second Readers of Papers and/or Projects

If a student disagrees with the grade given on a paper or project, he/she must discuss this with the faculty member who graded the paper. If an agreement is not reached, the following procedure will be followed to request a second reader.

1. The student must submit a written petition for a second reader to the faculty member in charge of the course no later than seven business days after receiving the grade. The petition should state which portions of the criteria are being challenged.
2. The student must also submit, to the faculty member in charge of the course, an unmarked and unaltered copy of the original paper. The student’s name will be removed from the paper to allow for a blind review.
3. Through an impartial process, the faculty member in charge of the course will assign a faculty member, who is familiar with the course level and content, to serve as second reader.
4. The second reader’s evaluation will be returned to the original instructor for her/his consideration. The grade is reviewed by the second reader and faculty responsible for the course with the original faculty member assigning a final grade.
5. A request for a second reading may result in a final grade that is the same, higher, or lower than the first grade.

Non Academic Appeals and Grievances

Student appeals and grievances are handled through established policies and procedures for the School of Nursing (http://nursing.uthscsa.edu) as outlined in the General Information section of this Catalog. The Associate Dean of Admissions and Student Services is available to explain, discuss, and facilitate this process with students at any point in the process as well as to deal directly with any other student issues, including student life, governance, mentoring, counseling and resource needs, ADA, EEOC, and concerns related to harassment, threat, or violence.

Examinations

The faculty believes course examinations serve two purposes:

1. To validate the student’s knowledge of course content;
2. To reinforce learning and promote understanding of content.

The following policies and procedures have been developed to accomplish these purposes.

1. Students are expected to take ALL examinations at the scheduled time. The student must notify the course coordinator and course faculty prior to the scheduled exam time if they are unable to take the exam as scheduled. Failure to make this notification in advance will result in a “zero” for that examination. If the excuse is accepted as reasonable and necessary, arrangements will be made for a make-up examination.
2. Exam content is based on course, class, and clinical objectives. Included are all required readings, lecture and discussion, related material in the course packet, media presented in or required for class, material handed out or on Blackboard.
3. Examination items are the proprietary intellectual property of the university and are not to be shared by students. Sharing of exam items by students is considered cheating and is subject to disciplinary action. There are no legal test item banks available to students in the School of Nursing (http://nursing.uthscsa.edu).
4. Students cannot bring any items into the exam room (including purses, backpacks, cell phones, pagers, water bottles, caps, jackets, or other items). Student must wear the Health Science Center (http://www.uthscsa.edu) ID card clearly visible to enter the room. Pencils, erasers, and any other item needed to take the exam will be provided. If students arrive late, no extra time to complete the exam will be given. If the exam is not surrendered when time is called, a grade of zero will be assigned.
5. Each student is responsible for making sure that he or she has completed the exam before the exam is turned in to a proctor. Under no circumstances will a student be allowed to retrieve her or his exam materials after turning them in to the test proctor. If the exam uses a Scantron form for scoring, only the Scantron form will be used for final grade determination. If the examination is administered on the computer, the electronic copy submitted and uploaded back to the examination vendor will be considered for final grade determination.

To reinforce learning and promote understanding of content

1. After the exam has been graded, if course faculty review the exam with students, particular attention will be paid to those items on which students had difficulty, as demonstrated by the item analysis. The purpose of the review is to correct misconceptions and promote understanding of the content, not to argue the validity of the item or the correct response.
2. Exams may be reviewed either with the clinical group or with the total class outside regularly scheduled class time or clinical time. Exams may also be reviewed individually with course faculty.
3. Policies regarding faculty members' review of exams with students individually are at the discretion of the faculty involved.

4. All exams/reviews must be completed within two weeks following the posting of grades for the respective exams.

Guidelines for Written Work

All written work is to be submitted on the announced due date(s) and time(s) unless the student has made previous arrangements with the faculty member. Penalties may apply to late submissions as noted in course materials.

Guidelines for written work have been approved and adopted by the faculty. Every student is expected to follow these guidelines:

1. Students are expected to follow the guidelines set forth in this manual; it is the only acceptable source book.

2. Students are required to use Turnitin for selected papers. Please see School of Nursing (http://nursing.uthscsa.edu) course syllabus for specific details.

This Catalog addresses plagiarism in the section that addresses scholastic dishonesty under procedures and regulations governing Student Conduct and Discipline. Any student found guilty of plagiarism is subject to disciplinary penalty ranging from written reprimand, zero on the work, failure in the course, and through dismissal from the program.

Attendance

The School of Nursing (http://nursing.uthscsa.edu) faculty believes that attendance at scheduled classes, examinations, clinical experiences, and clinical learning laboratory is crucial to meeting course and program objectives. Excused absences may be granted by the instructor in such cases as illness or personal emergency and are considered on an individual basis. Time missed, even when excused, will count toward the total allotment for missed time from clinical. Faculty may also require that the student complete a makeup assignment. Please see course syllabus for attendance requirement.

Dress Code

Students are expected to dress professionally and display professional demeanor at all times. The School of Nursing (http://nursing.uthscsa.edu) follows a dress code in class and in the clinical setting. In addition, students are expected to adhere to the dress code of the clinical agency. The Student Dress Code can be found on the School of Nursing (http://nursing.uthscsa.edu) website.

Patient Safety

The nature of clinical nursing courses is such that students are involved in the direct or indirect delivery of patient care services. The primary purpose of any course is to provide education for students. However, when direct patient care is involved in the learning experience, the safety and well-being of patients are of paramount concern. Within the structure of nursing clinical courses, students are given the opportunity to demonstrate increasing independence and competence in providing nursing care as they progress through the program.

Students are expected to demonstrate achievement of clinical objectives by the end of a clinical course. If, in the instructor's professional judgment, a student is consistently unable to provide safe nursing care to patients and cannot remedy the deficit in the given clinical time, the student will receive a grade of "F" for the course. Faculty, or staff in the clinical agency, has the right to remove a student from the clinical area at any time for cause.

CPR Requirements

Students are required to maintain American Heart Association Health Care Provider Basic Life Support certification in order to participate in clinical experiences. Students who do not have a current American Heart Association Health Care Provider Basic Life Support certification will not be allowed to attend clinical.

Clinical Sites

All students are expected to be prepared to provide nursing care for the patient(s) to whom they are assigned in each clinical activity. Students are expected to complete any other assignments that constitute preparation for activities in the clinical environment. The faculty has the right and an obligation to remove a student from a clinical setting/agency if the student is not prepared. Students assume responsibility and are liable for their own actions. Students also are responsible for maintaining the confidentiality of all forms of patient information.

Students should be in the clinical agency only during scheduled times. The student's faculty and the agency personnel must consent to all other visits. Students must obtain prior approval from their clinical instructor if they plan to contact any agency personnel. If the student is already assigned to an agency, and the purpose for the contact differs from the clinical assignment, clearance must also be obtained from the clinical instructor. Faculty assumes responsibility for the assignment in the clinical agency or setting.

Students are expected to achieve the clinical objectives within the allotted time. In order to accomplish objectives, students are expected to attend every clinical session in its entirety. Failure to do this will jeopardize the student's progression in the course. Classes and clinical practicum experiences may be held during the day or evening hours or on weekends. The time of day for class and clinical offerings varies from semester to semester and from course to course. Thus, a student may expect to attend a class or clinical practicum during the evening hours or weekend at some point during their program of study.

Clinical Attendance

Students are required to attend all clinical experiences. Students are to be prompt, prepared, and appropriately attired. A student who is unable to attend a clinical experience must contact the clinical faculty personally prior to the beginning of the clinical experience. Leaving a message or e-mail for the faculty is not acceptable. Faculty will share specifics regarding appropriate means of communicating during orientation. If 15% or more of clinical time is missed in a clinical course, the student will not be able to progress to subsequent courses in the program. Make up assignments may be given for excused absences, but that assignment does not substitute for missed clinical time. The student who misses 15% or more time in clinical will have to repeat the course in which clinical time was missed. Students may be required to attend clinical hours any day, evening, or night of the week. Travel to surrounding communities may be necessary.
Clinical Passport

Undergraduate Students are required to maintain a clinical passport and have this on their person at all times while in the clinical setting.

Transportation

Students must provide their own transportation to the various agencies for clinical experience. Parking fees associated with clinical practice are the responsibility of the student.

Learning Laboratory and Center for Simulation Innovation

The Nursing Learning Laboratory and Center for Simulation Innovation was designed as a specific area where clinical competence and associated psychomotor skills are developed within the curriculum. Varied low, medium and high fidelity manikins programmed to mimic human reactions to health care interventions; task trainers and health care equipment are used by students to begin to learn how nurses care for patients and to develop confidence that will facilitate learning in the authentic clinical environment. Attendances in Learning Laboratory or Center for Simulation Innovation activities are considered clinical time. Learning is facilitated when students actively participate in the activities that have been carefully constructed for each laboratory period to promote acquisition of new competencies and continued advancement of competence. There are typically readings, study guides or other activities that students are expected to complete prior to arriving in the lab so that they are fully prepared to extract maximum value from the learning experience.

Students may gain extra practice in the laboratory outside of assigned laboratory periods. The course faculty, Simulation Specialist and graduate assistants are available to help students. They will monitor practice activities and demonstrate skills. They all collaborate to develop learning activities that are best suited to amplify student learning in the simulated environment.

The following requirements are designed to help students maximize the benefits of using this environment.

1. Students may only practice those nursing procedures that they have previously been taught during regular Learning Lab classes.
2. Graduate students, undergraduate students, and faculty may schedule practice labs with the Manager of the Learning Laboratory and Center for Simulation Innovation or her/his designees.
3. Scheduling of sessions is dependent upon availability of space and supplies.
4. In the interest of safety for all students, practice of invasive procedures requiring needles, syringes, and intravenous supplies must be supervised by a faculty member or one of the Simulation Specialists. Arrangements for such supervision are the student’s responsibility.
5. Practice sessions not requiring supervision must also be scheduled with Learning Laboratory and Center for Simulation Innovation personnel.
6. In light of the high volume of student activities scheduled in this environment, make-up labs for scheduled lab sessions are not offered, unless specifically scheduled by the faculty who will teach extra labs. Therefore, attendance is crucial.

Equipment, literature, audiovisual, and practice materials may be used in the Learning Lab, and many of these items may be checked out for use in other areas. Items to be checked out should be reserved in advance with the staff. The borrower is responsible for items on loan. The Learning Lab staff should be consulted for instructions on use, and they should be made aware of equipment not operating properly. Extra books and other nonessential items should be stored before the student enters the Lab. Lockers are available in the laboratory area. If equipment or supplies are damaged or lost the student is responsible for replacement cost.

Learning Laboratory Attendance

Learning Laboratory is considered clinical time. Attendance is essential and we expect students to review course syllabus regarding attendance requirement. Students arriving late for Learning Laboratory are not given extra time for skill practice or performance.

The Associate Dean for Academic Affairs will be notified in writing by the course coordinator and clinical faculty if a student is at risk of being removed from a clinical course because they have met or exceeded the maximum allowable missed hours in either Clinical or the Learning Laboratories. The Associate Dean for Academic Affairs will follow-up with clinical faculty and course coordinator to identify appropriate next action, and will communicate with the student regarding resultant changes in progression in the program.

Student Center

The Online Student Center via The Portal is a one stop center to provide services and information to assist students in achieving their academic goals. The Student Center allows students to review policies, procedures, and graduate handbooks, enroll in classes, view their bill, check financial aid status, make payments, view their holds, change address, enrollment verification and more all from a single anchor page.

Organizations

Organizations available at the School of Nursing (http://nursing.uthscsa.edu) are:

- Nursing Student Council
- National Student Nurses’ Association
- Student Government Association Representatives
- Graduate Student Nursing Association
- Institute for Health Improvements (IHI) Open School San Antonio Chapter
- Hispanic Student Nurses Association
- International Nursing Student Organization
- Men In Nursing

Deferred Enrollment

Selected applicants to The University of Texas Health Science Center San Antonio (UTHSCSA) School of Nursing (SoN) are expected to matriculate into the semester admitted at the beginning of fall, spring, or summer. Under extreme circumstances such as serious medical reasons, a selected undergraduate applicant may request a one-semester deferment, to begin the program the following semester or a selected graduate student may request up to one year deferment, to begin the program the same semester one year later. If an applicant chooses to request a deferment for the next admissions cycle, the applicant must submit a written request to the Office of Admissions and Student Services indicating intent to defer and specify the desired semester for enrollment. Deferment is not guaranteed. Enrollment will be on a space available basis.
Non-degree/Special Student Status

Non-degree/special student status may be considered under special circumstances and on a space available basis to an individual who wishes to enroll in a course(s) in the School of Nursing (http://nursing.uthscsa.edu) without entering a degree program. Students must communicate in writing their desire to enroll as a non-degree seeking student to the School of Nursing Associate Dean for Admissions and Student Services.

- Students must receive approval of the Associate Dean for Admissions and Student Services in consultation with appropriate Program Director. If approval is granted, a non-degree seeking application must be submitted.
- A student may register as a non-degree student for a specified number of credit hours at the discretion of the appropriate Program Director.
- Non-degree seeking students who wish to pursue degree seeking status must formally apply for admission through NursingCAS.
- The application deadline for fall is March 1 and for spring is November 1.
- Non-degree applicants are not guaranteed admissions as degree seeking students have priority for enrollment in courses.

Courses taken as a non-degree seeking student will be evaluated by the appropriate Program Director for transfer credit. Please contact the Office of Admissions and Student Services (http://nursing.uthscsa.edu/students) for further details about the process. The School of Nursing (http://nursing.uthscsa.edu) and the Office of the Registrar work collaboratively to process non-degree/special student applications. Students do not have to register consecutively for classes each semester and may skip a semester without penalty. The grading policies for non-degree students are the same as those for degree students and will be included in the student’s transcript. Courses and grades taken as a non-degree student will be included in the computation of the cumulative GPA of the student admitted to a School of Nursing (http://nursing.uthscsa.edu) undergraduate or graduate program.

Bachelor of Science in Nursing (BSN)

The Baccalaureate Nursing program is an upper division program leading to a Bachelor of Science in Nursing (BSN) degree. Candidates for the program take their first two (i.e. freshman and sophomore) years of general education credits at any accredited college of their choice.

There are two tracks of study in the BSN program:

1. **Accelerated Track** (http://nursing.uthscsa.edu/programs/ugrad/Tracks/accelerated.aspx) - designed to meet the learning needs of the individual who has completed a prior BS or higher degree in a field other than nursing. The Accelerated Track will require 15 months of continuous full time intensive study. The faculty recommends that students in this track do not work while in the program. Candidates will be admitted to this track once per year in May.

2. **Traditional Track** (http://nursing.uthscsa.edu/programs/ugrad/Tracks/traditional.aspx) - an upper division completion track for individuals completing their first baccalaureate degree and who are not registered nurses. Students will complete this program in 2 years of study with summers off. Candidates are admitted in both the fall and spring semester of each year.

BSN Admissions Requirements

**Degree: Bachelor of Science in Nursing (BSN): Traditional**

Specialization, Program of Study: Nursing

Program Length: Completion of the track generally requires two years (four semesters) of full-time study.

**General Admission Requirements**

To be considered for admission to the Traditional Bachelor of Science (BSN) Program the following factors are required:

- NursingCAS application service fee
- Complete 60 semester credit hours of required prerequisite courses. Students must complete all required math and science prerequisite courses at the time of application. For a list of required courses, click here (http://nursing.uthscsa.edu/students/eqvTables.asp). If accepted, the remaining required courses (example: Introduction to Psychology, Growth & Development, and Introduction to Sociology) must be completed prior to the first day of new student orientation.
- Submit official transcript(s) from each post-secondary institution attended to NursingCAS. International transcripts must be evaluated by an accredited foreign credential service. *For more information regarding international applicant requirements, click here (http://nursing.uthscsa.edu/students/intApplicants.asp).
- Minimum 2.5 cumulative GPA
- Minimum 3.0 math/science GPA
- Take the TEAs Version 5.0 Exam (For information regarding the TEAs exam content, click here (http://www.atitesting.com).)
• Official copy of Test of English as a Foreign Language (TOEFL) or International English Language Testing System (IELTS) score, if international applicant. TOEFL and IELTS scores can be no more than two (2) years old. A minimum TOEFL score of 550 is required on the paper examination; minimum 250 on the computer-based examination; or, minimum 68 on the internet based examination. A minimum IELTS score of 6.5 is required. TOEFL school code: 3383
• CPR certification – BLS for Healthcare Providers through American Heart Association
• Current Required Immunizations (http://nursing.uthscsa.edu/shc/hc_immunization.asp)
• Proof of Current Health Insurance Coverage (http://studentservices.uthscsa.edu/pdf/InsuranceVerif&DisclaimForm.pdf)
• Clear Criminal Background Check
• Basic Computer Skills
• Supplemental application

Application Deadline: Deadline for fall entrance is March 15. Deadline for spring entrance is August 1

Start Term: Fall or Spring

Contact:
Office of Admissions & Student Services
School of Nursing
Floyd Curl Drive, MSC 7945
San Antonio, Texas 78229-3900
Phone: 210-567-5805
Toll Free: 877-235-0341
FAX 210-567-6189

http://nursing.uthscsa.edu/

Degree: Bachelor of Science in Nursing (BSN): Accelerated
Specialization, Program of Study: Nursing

Program Length: Completion of the track requires fifteen months of full-time study.

General Admission Requirements
To be considered for admission to the Accelerated Bachelor of Science (BSN) Program the following factors are required:

• Online application submitted via NursingCAS (http://nursingcas.org). View a video overview (http://www.screencast.com/t/TYbelPyAD) on completing NursingCAS application.
• NursingCAS application service fee
• Hold or attain a non-nursing baccalaureate degree from an accredited institution prior to the start of the nursing program
• Complete 60 semester credit hours of required prerequisite courses. Students must complete all required math and science prerequisite courses at the time of application. For a list of required courses, click here (http://nursing.uthscsa.edu/students/eqvTables.asp). If accepted, the remaining required courses (example: Introduction to Psychology, Growth & Development, and Introduction to Sociology) must be completed prior to the first day of new student orientation.
• Submit official transcript(s) from each post-secondary institution attended to NursingCAS. International transcripts must be evaluated by an accredited foreign credential service. *For more information regarding international applicant requirements, click here (http://nursing.uthscsa.edu/students/intApplicants.asp).
• Minimum 2.5 cumulative GPA
• Minimum 3.0 math/science GPA
• Take the TEAs Version 5.0 Exam (For information regarding the TEAs exam content, click here (http://www.atitesting.com).)
• Official copy of Test of English as a Foreign Language (TOEFL) or International English Language Testing System (IELTS) score, if international applicant. TOEFL and IELTS scores can be no more than two (2) years old. A minimum TOEFL score of 550 is required on the paper examination; minimum 250 on the computer-based examination; or, minimum 68 on the internet based examination. A minimum IELTS score of 6.5 is required. TOEFL school code: 3383
• CPR certification – BLS for Healthcare Providers through American Heart Association
• Current Required Immunizations (http://nursing.uthscsa.edu/shc/hc_immunization.asp)
• Proof of Current Health Insurance Coverage (http://studentservices.uthscsa.edu/pdf/InsuranceVerif&DisclaimForm.pdf)
• Clear Criminal Background Check
• Basic Computer Skills
• Supplemental application

**Application Deadline:** Deadline for May entrance is January 15. (Accelerated BSN applications are accepted only once each year)

**Start Term:** May

**Contact:**

Office of Admissions & Student Services
School of Nursing
UT Health Science Center San Antonio
7703 Floyd Curl Drive, MSC 7945
San Antonio, Texas 78229-3900
Phone: 210-567-5805
Toll Free: 877-235-0341
FAX 210-567-6189

http://nursing.uthscsa.edu/

**BSN Degree Requirements and Graduation**

**Requirements**

To be eligible for graduation, a student must have a 2.0 grade point average for the required 60 semester hours of upper-division course work. At least 30 of the last 33 semester hours of the nursing major must be completed at the School of Nursing (http://nursing.uthscsa.edu).

**Procedures for Degree Candidates**

A candidate for a degree must (1) register in the semester in which the degree is to be received and (2) file an Application for Graduation Form degree with the Office of the Registrar (http://studentservices.uthscsa.edu/GI_registrar.aspx) during the semester prior to the term in which the degree is to be granted.

Degrees will be conferred only on official dates publicly announced. Commencement ceremonies are held in December and May of each year.

**Graduation with Honors**

Students whose upper-division grade point average is above 3.4 will be awarded the degree with honors. The honors designation is noted on the diploma and the transcript, and honor students receive special recognition at graduation ceremonies. To receive these honors, students must complete at least 30 semester credit hours in residence.

Honors designations are based on the following scale:

- 3.4–3.59 Cum Laude
- 3.6–3.79 Magna Cum Laude
- 3.8–4.0 Summa Cum Laude

**Registration as a Professional Nurse**

A student seeking registration as a professional nurse must take and pass the National Council Licensure Examination for Registered Nurses (NCLEX-RN) (http://www.ncsbn.org/nclex.htm) administered by the Board of Nursing for the State of Texas (http://www.bne.state.tx.us). The Board may refuse to approve persons to take the licensure examination, may refuse to issue or renew a license or certificate of registration, or may refuse to issue a temporary permit to any individual who has been arrested for anything other than a minor traffic violation.

As of 1996, an individual applying for the NCLEX-RN (http://www.ncsbn.org/nclex.htm) examination must answer the questions listed below:

1. Have you ever been denied licensure by a licensing/certifying authority in any country, state, or province?
2. Have you ever had disciplinary action taken against you by any licensing/certifying authority in any country, state, or province?
3. Have you ever been convicted of a crime other than minor traffic violations?
4. Have you been diagnosed with or treated or hospitalized in the past five (5) years for schizophrenia or other psychotic disorders, bipolar disorder, paranoid personality disorder, antisocial personality disorder, or borderline personality disorder? (You may answer “no” if you have completed and/or are in compliance with TPAPN (http://www.texasnurses.org/displaycommon.cfm?an=1&subarticlenbr=107), Texas Peer Assistance Program for Nurses (http://www.texasnurses.org/displaycommon.cfm?an=1&subarticlenbr=107), for mental illness.)
5. Have you been addicted to or treated for the use of alcohol or any other drug within the past five (5) years? (You may answer “no” if you have completed and/or are in compliance with TPAPN (http://www.texasnurses.org/displaycommon.cfm?an=1&subarticlenbr=107) for substance abuse.)
6. Have you ever been issued any order concerning your eligibility for examination or licensure by this Board?
7. If the answer to any of these questions is “yes,” the student must contact the Texas Board of Nursing (http://bon.texas.gov).

The student will receive information about Initial Licensure and instructions about FBI background checks through the School of Nursing.

All 120 hours for the degree must be completed before the student is eligible to take the NCLEX-RN (http://www.ncsbn.org/nclex.htm).

A student planning to take the NCLEX-RN in another state must obtain information regarding procedure from the agency responsible for professional nurse registration in that state.

**Registration**

Entering students must register and pay tuition and fees by the official dates listed in the Academic Calendar provided by the Office of the Registrar. All students must register for courses every semester, excluding summer, to be considered continuously enrolled. Students are expected to pre-register during stated Health Science Center required times. Students may register up to the Official first class day without late fees or penalties. Please refer to General Admission Requirements for the list of materials (and related policies) that must be received prior to registration. Those who do not register in the School of Nursing for three consecutive terms are considered to have withdrawn and their School of Nursing records are deactivated. Deactivated students may not register for courses, take examinations, submit Application for Degree or Degree Plan forms, or otherwise participate in the University community and the School of Nursing. Students must re-apply for admission.

The procedure for registration can be found on the Office of the Registrar website.

**Degree Requirements**

Students are responsible for knowing degree requirements and for enrolling in courses that fit their degree programs. Students are likewise responsible for knowing the School of Nursing (http://nursing.uthscsa.edu) program regulations with regard to the standard of work required for continuance and eligibility for graduation.

**BSN Curriculum and Plans of Study**

The undergraduate nursing curriculum is completed in two phases, the first of which is the 60 semester hours of basic liberal arts required for admission to the School of Nursing (http://nursing.uthscsa.edu) (Pre-nursing Course Requirements).

The second phase encompasses the major in nursing and is presented in the junior and senior years. The curriculum includes 60 semester hours of upper-division nursing courses at the School of Nursing. Taken in either the Traditional Track or Accelerated Track, these courses are designed to prepare the baccalaureate nurse for practice in a variety of settings and specialties.

*Students may complete the 60 hours of required nursing courses through the Traditional Track or the Accelerated Track. The Traditional Track is designed to be completed in 2 years of full-time study fall and spring term. All coursework must be completed within a four year time limit. The Accelerated track is designed to be completed in 15 months full-time. The School of Nursing reserves the right to revise curriculum to remain current with national nursing practice standards.*

**Traditional BSN**

The Traditional BSN track is designed for individuals entering the School of Nursing without prior nursing knowledge, experience, or skills. Completion of the track generally requires two years (four semesters) of full-time study.

**Traditional BSN Program Plan -(Full-Time Study)Semester I Traditional**

<table>
<thead>
<tr>
<th>Theory</th>
<th>Clinical</th>
<th>Lab</th>
<th>Cont</th>
<th>SCH</th>
</tr>
</thead>
<tbody>
<tr>
<td>NURS 3303 Concepts of Professional Nursing</td>
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<td>NURS 3309 Pathophysiology</td>
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<td>NURS 3204 Health Assessment: Theoretical Foundations</td>
<td></td>
<td>2</td>
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<td>NURS 3110 Health Assessment: Clinical Application</td>
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<td>NURS 3330 Foundations of Clinical Nursing Practice -Theoretical Foundations</td>
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<td>Course</td>
<td>Title</td>
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<td>Lab</td>
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<td>1.0</td>
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<td><strong>Semester II Traditional</strong></td>
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<td></td>
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<tr>
<td>NURS 3304</td>
<td>Pharmacotherapeutics</td>
<td>3</td>
<td></td>
<td>45</td>
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<tr>
<td>NURS 3375</td>
<td>Research And Evidence Based Practice</td>
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<td>NURS 3205</td>
<td>Psychiatric and Mental Health: Theoretical Foundations</td>
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<td>NURS 3206</td>
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<td>NURS 3207</td>
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<td>NURS 3208</td>
<td>Care Of Childbearing Families: Clinical Application</td>
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<td><strong>Semester III Traditional</strong></td>
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<tr>
<td>NURS 4311</td>
<td>Care Of The Adult 1: Theoretical Foundations</td>
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<td>NURS 4314</td>
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<td>NURS 4316</td>
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<td>NURS 4210</td>
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<td><strong>Semester IV Traditional</strong></td>
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<td>NURS 4317</td>
<td>Population Focused Health: Theoretical Foundations</td>
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<td>NURS 4217</td>
<td>Population Focused Health: Clinical Application</td>
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<td></td>
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</tbody>
</table>
### Accelerated BSN

The Accelerated BSN track is designed for individuals who hold a baccalaureate degree in a field other than nursing. Completion of the track requires 15 months of full-time study. The program may only be undertaken on a full-time basis. The SON faculty recommends that students not attempt outside employment during their studies due to the intensive nature of studies.

### Accelerated BSN Program Plan (Full-Time Study)

#### Semester I Accelerated

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Theory</th>
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<th>Lab</th>
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<tbody>
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<td>NURS 3370</td>
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<tr>
<td>NURS 3272</td>
<td>Health Assessment and Promotion: Theoretical Foundations</td>
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<tr>
<td>NURS 3273</td>
<td>Health Assessment and Promotion: Clinical Application</td>
<td>2</td>
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<tr>
<td>NURS 3330</td>
<td>Foundations of Clinical Nursing Practice: Theoretical Foundations</td>
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<tr>
<td>NURS 3371</td>
<td>Foundations of Nursing Care: Clinical Applications</td>
<td>3</td>
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Total Credit Hours: 10.0  0.0  5.0  375.0  15.0

#### Semester II Accelerated

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<td>NURS 3373</td>
<td>Family Nursing Care: Clinical Applications</td>
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Total Credit Hours: 6.0  9.0  0.0  315.0  15.0
The University of Texas Health Science Center at San Antonio

NURS 3374  Research and Evidence-Based Practice  3  45  3
NURS 3365  Pharmacology  3  45  3

Total Credit Hours:  11.0  5.0  0.0  390.0  16.0

Semester III Accelerated

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<td>NURS 4501</td>
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<td>NURS 4502</td>
<td>Disease Management 2: Theoretical Foundations</td>
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<td>NURS 4111</td>
<td>Pharmacotherapeutics: Disease Management 2</td>
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<td>NURS 4403</td>
<td>Disease Management 3: Clinical Application</td>
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Total Credit Hours:  11.0  4.0  0.0  345.0  15.0

Semester IV Accelerated

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<tr>
<td>NURS 4327</td>
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<tr>
<td>NURS 4227</td>
<td>Population Focused Health: Clinical Applications</td>
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<tr>
<td>NURS 4329</td>
<td>Leadership and Management: Theoretical Foundations</td>
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<td>NURS 4230</td>
<td>Leadership and Management: Clinical Application</td>
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<td>NURS 4423</td>
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<td>4</td>
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<td></td>
</tr>
</tbody>
</table>

Total Credit Hours:  6.0  8.0  0.0  450.0  14.0

Time Limit

Undergraduate students must successfully complete all coursework toward the degree within four years of the date of initial enrollment in the program.

BSN Program Outcomes

At the completion of the baccalaureate program the student will demonstrate the following:

1. Incorporate knowledge, skills, and attitudes from the liberal arts and sciences in professional nursing education and practice.
2. Apply knowledge and skills of organizational and systems leadership, quality improvement and patient safety in promoting safe, high-quality care for diverse patients across healthcare systems and environments.
3. Analyze and apply evidence from research and other information sources as a basis for nursing practice.
4. Incorporate knowledge and skills in using information systems and a range of patient-care technologies to facilitate delivery of quality patient care.
5. Advocate for financial and regulatory healthcare policies, processes, and environments that improve the nature and functioning of the healthcare delivery system and nursing practice.
6. Collaborate and communicate effectively with healthcare professionals to promote positive working relationships, improve patient health outcomes, and deliver quality, safe patient care.
7. Promote individual and population health by assessing factors that influence individual and population health and apply principles and culturally appropriate health promotion and disease-prevention strategies. Demonstrate consistent application of the core values of the discipline of nursing and the professional standards of moral, ethical, and legal conduct.
8. Demonstrate consistent application of the core values of the discipline of nursing and the professional standards of moral, ethical, and legal conduct.
9. Integrate the knowledge, skills, and attitudes expected of baccalaureate prepared nurses by providing professional nursing care to diverse patients and populations across the lifespan, healthcare settings, and healthcare environments.

**BSN Program Policies**

**Assessment Technologies Institute (ATI)**

The faculty of the School of Nursing has adopted the comprehensive program developed by Assessment Technologies Institute, LLC (ATI) (http://www.atitesting.com) as an assessment of student learning and preparation for success on the NCLEX-RN (https://www.ncsbn.org/nclex.htm) licensing examination. It is also hoped that this program will promote retention because it provides tutorial materials in book form, CD, and computerized practice tests that will help students and faculty evaluate acquisition of knowledge relative to content that may be seen in the licensing examination.

The ATI program is initiated during the application process for incoming students when the TEAS (Test of Essential Academic Skills (http://www.atitesting.com/onlinestore/productpage.aspx?code=166&isproduct=1)) is administered and continues with learning assessments used throughout the program. **Purchase of the ATI materials for each semester is mandatory.** Completion of all ATI materials/exams, as designated in each course syllabus falling within a given semester, is required for each undergraduate nursing student to meet the requirements for completing that course, receiving a grade, and progressing through either track of the Undergraduate Curriculum. The learning and testing materials are designed to increase student confidence in computer-based testing, and to improve application of nursing process, critical thinking skills, and competencies required of new graduates in nursing to pass the NCLEX-RN (https://www.ncsbn.org/nclex.htm).

Our goal is to assure that students are well prepared academically and experientially for the licensing examination and practice in the rapidly changing healthcare environment. We have received very positive feedback from other schools in Texas and the nation on satisfaction with the ATI (http://www.atitesting.com) comprehensive program and the SON NCLEX pass rates have improved since instituting the ATI requirement.

**Transfer Students**

Individuals who wish to transfer into the BSN program of the School of Nursing (http://nursing.uthscsa.edu) must have completed the 60 hours of pre-nursing coursework required by this institution and accumulated a minimum grade point average of 3.0 in required courses and an overall grade point average of 2.50. Applicants must also be in good standing and eligible for readmission at their current/former school of nursing. At least 30 of the final 33 hours of work in the nursing major must be completed at the Health Science Center (http://www.uthscsa.edu) School of Nursing. Application deadlines are January 10 (fall), July 1 (spring) and November 2 (summer). The GPA of transfer students must be competitive for the current incoming class.

**Grades and Progression**

The standing of students in their work is expressed by five grades: A (excellent), B (above average), C (average), D (below average), F (failure). Students may also register in certain courses on a pass/fail basis, in which case the grade is recorded as either Pass (P) or Fail and no letter grade is assigned. All required nursing theory courses in the Bachelor of Science in Nursing program Traditional and Accelerated tracks must be taken for a letter grade. A grade may not be changed after it has been reported to the Registrar unless an error has been made by the instructor. Clinical course are graded as P or F.

Although a grade of D can be earned in a required nursing course, it is a failing grade and a grade of C or higher is necessary for progression to the next required course in the sequence or for graduation. In elective nursing courses, credit may be earned for a grade of D.

In computing the grade point average, the following scale of points per semester credit hour is used:

- **A** = 4 points (90-100)
- **B** = 3 points (80-89)
- **C** = 2 points (70-79)
- **D** = 1 point (60-69)
- **F** = 0 points (59 or below)

**Note:** Final numeric grades are calculated to two decimal places and rounded mathematically as follows:
Students must make a "C" (70) or higher in all nursing courses to progress in the program.

Satisfactory Progress
To be considered as making satisfactory progress, a student must maintain a cumulative grade point average of 2.0 or above with no grade lower than C in required upper-division nursing courses.

Students will be required to take the nationally normed ATI tests throughout the program and the ATI comprehensive predictor examination at the end of the program prior to graduation and/or taking the licensing exam.

Dean’s List
The GPA for full-time students for Dean’s List is 3.5. Fall and spring students should be enrolled at least 12 hours, and 6 hours for summer.

Progression in the Program
Students must earn a C or above in each required course of the undergraduate program in order to progress in the program. An undergraduate student who earns a D, F, or WF in a required nursing course must repeat the course in question during the semester immediately following receipt of a failing grade or during the next semester in which the course is offered following receipt of a failing grade based on space-available. Newly admitted students, enrolled students, and students who have withdrawn in good standing have priority over other students seeking to repeat a course.

Students who receive a D, F or WF in a clinical course must request permission to repeat a clinical course. Requests to repeat the course will be reviewed by the Committee on Undergraduate Studies (COUS). Course and clinical faculty will review the performance of the failing student and will make recommendations to the COUS based on the student’s overall performance in the course in question. Students who have a documented pattern of unsafe or unprofessional clinical performance during the semester and have not improved following remediation will be rated as low priority for repeating the course and may not be permitted to repeat the course. Therefore, the student who is not granted permission to repeat a failed course in the semester immediately following a failure or during the next semester in which the course is offered due to a documented pattern of significant unprofessional or unsafe performance will be dismissed from the nursing program.

Unsafe clinical performance is defined as “an act that is harmful or potentially detrimental to the patient, self, or other health personnel (Luhanga, Yonge, and Myrick, 2008, p1).” Unprofessional conduct is defined as the rules set forth in the Texas State Board of Nursing Rules and Regulation § 217.12.

Students who earn a D, F or WF in a required course, or whose average falls below C (GPA falls below 2.0), will be placed on academic probation for one semester/term. If at the end of the semester/term, the student has achieved a GPA of 2.0 or above with no grade lower than C in required nursing courses, he or she will be removed from academic probation.

Students who earn a D, F, or WF in two required nursing course (or from the same course twice) will be dismissed academically from the undergraduate nursing program and will be ineligible for readmission.

Advisement Program for Students on Academic Probation
A student who is allowed to repeat a course, or who is on academic probation will be required to participate in an advisement program. The student will be required to sign a contract with the Associate Dean for Academic Affairs agreeing to participate in the advisement program. The student will also be required to meet regularly for the advisement program with the Associate Dean for Admissions and Student Services failure to comply with the contract constitutes cause for dismissal.

Scholastic Probation
A student whose GPA falls below 2.0 but has no grade lower than C in required upper-division nursing courses will be placed on scholastic probation for one semester/term. If at the end of the semester/term, the student has achieved a GPA of 2.0 or above with no grade lower than C in required nursing courses, he or she will be removed from scholastic probation.

A student who fails to remediate her or his probationary status in one semester/term will be dismissed and will be ineligible for readmission.

Examinations
Examinations must be taken on the date and time scheduled. Policies regarding missed examinations are stated in course syllabi.
Graduate Credit

Undergraduate students may be eligible to take graduate courses in nursing. These credit hours taken by undergraduate students may be applied toward the graduate degree as long as these credits are not used toward the undergraduate degree. Credit hours may be applied toward the graduate degree only after the student has been admitted to and is enrolled in the graduate program.

Outside Employment

The nursing program permits students to be enrolled full-time or part-time. Full-time students are encouraged not to plan full-time employment while enrolled in the program. A student’s combined employment and semester-hour load should not exceed 40 hours per week.

Students may be employed as unlicensed care givers such as patient care assistants and certified nursing assistants, performing functions for which they have received training in the institution and for which the institution has a clearly discernible policy either in writing or by precedent defining the scope of these functions. Any individual not licensed in the State of Texas, or a Compact State, to practice professional nursing who engages in such practice is doing so illegally and may be prosecuted accordingly. Supervision by the professional, licensed nurse does not provide protection to the student or make the student’s actions legal.

Students should be aware that: (1) the School of Nursing (http://nursing.uthscsa.edu) assumes no responsibility for their activities as an employee of an agency; (2) the students are personally responsible and liable for any activity they participate in while employed; (3) professional liability insurance purchased by students through the School of Nursing is only valid in their student roles, not their employment roles; (4) individuals who practice illegally may jeopardize their future. Persons who are convicted of violation of the Nurse Practice Act may not be eligible to take the NCLEX-RN (http://www.ncsbn.org/nclex.htm) and subsequently receive licensure.

Students employed in an agency have the responsibility, personally and professionally, to engage only in those activities which fall within their job description as nonprofessional workers (i.e., aides). They have a responsibility to refuse to participate in activities that they have not been legally licensed to perform (i.e., giving medication, assuming total responsibility for a division, etc.).

Students may not wear their school patch or student name badge at their place of employment.

Master of Science in Nursing (MSN)

The Master of Science in Nursing (MSN) program (http://nursing.uthscsa.edu/programs/grad/msn_majors.aspx) is comprised of six majors: (1) Administrative Management, (2) Clinical Nurse Leader (CNL), (3) Family Nurse Practitioner, (4) Psychiatric Mental Health Nurse Practitioner, (5) Pediatric Nurse Practitioner Primary Care, and (6) Adult-Gerontology Acute Care Nurse Practitioner. Students can enter the program as traditional Post-Baccalaureates in Nursing, completing 40-50 semester credit hours of graduate level coursework.

Students without a BSN can enter the Alternate Entry Masters Degree for ADN/Diploma RNs program (http://nursing.uthscsa.edu/programs/grad/msn_aem.aspx) and select from the following majors: (1) Clinical Nurse Leader, (2) Administrative Management, (3) Family Nurse Practitioner, (4) Psychiatric Mental Health Nurse Practitioner, (5) Pediatric Nurse Practitioner Primary Care, and (6) Adult-Gerontology Acute Care Nurse Practitioner. Students complete 21 semester credit hours of undergraduate level coursework while beginning their graduate level courses to earn the Master’s degree.

MSN Admissions Requirements

Degree: MSN

Specialization, Program of Study: Nursing, Administrative Management, Clinical Nurse Leader, Nurse Practitioner (Family Nurse Practitioner, Pediatric Nurse Practitioner Primary Care, Psychiatric Mental Health Nurse Practitioner, Adult-Gerontology Acute Care Nurse Practitioner).

Program Length: 2 # 3 Years

Admissions Requirements

To be considered for admission to the Master of Science in Nursing (MSN) Program the following factors are required:

• Online application submitted via NursingCAS (http://nursingcas.org). View a video overview (http://www.screencast.com/t/TYbelPyAD) on completing NursingCAS application.
• NursingCAS application service fee
• Bachelor’s in Nursing
• Submit official transcript(s) from each post-secondary institution attended, even if no degree awarded, to NursingCAS. International transcripts must be evaluated by an accredited foreign credential service. *For more information regarding international applicant requirements, click here (http://nursing.uthscsa.edu/students/intApplicants.asp).
• Grade Point Average of "B"# (3.0 on a 4.0 scale) or higher is required
• Basic statistics course
• Official copy of Test of English as a Foreign Language (TOEFL) or International English Language Testing System (IELTS) score, if international applicant. TOEFL and IELTS scores can be no more than two (2) years old. A minimum TOEFL score of 550 is required on the paper examination; minimum 250 on the computer-based examination; or, minimum 68 on the internet based examination. A minimum IELTS score of 6.5 for graduate admission is required. TOEFL school code: 3383

• Licensure as a Registered Nurse in Texas or Compact State

• Current CPR Certification

• Current Required Immunizations (http://nursing.uthscsa.edu/shc/hc_immunization.asp)

• Proof of Current Health Insurance Coverage (http://studentservices.uthscsa.edu/pdf/InsuranceVerif&DisclaimForm.pdf)

• Clear Criminal Background Check

• Basic Computer Skills

• Three Professional References(Submit via NursingCAS application)

• Professional Goal Statement/Essay (Submit via Supplemental Application, not via NursingCAS application)

• Current resume or curriculum vita

**Application Deadline:** Deadline for fall entrance is February 1. Deadline for spring entrance is July 1

**Start Term:** Fall or Spring term only for Family Nurse Practitioner. Fall for all other majors.

**Contact:**

Office of Admissions & Student Services

School of Nursing

UT Health Science Center at San Antonio

7703 Floyd Curl Drive, MSC 7945

San Antonio, Texas 78229-3900

Phone: 210-567-5805

Toll Free: 877-235-0341

FAX 210-567-6189

http://nursing.uthscsa.edu/

**Degree: MSN: Alternate-Entry**

Specialization, Program of Study: Nursing, Administrative Management, Clinical Nurse Leader, Nurse Practitioner (Family Nurse Practitioner, Pediatric Nurse Practitioner Primary Care, Psychiatric Mental Health Nurse Practitioner, Adult-Gerontology Acute Care Nurse Practitioner).

Program Length: 3 - 4 Years

**General Admission Requirements**

To be considered for admission to the Alternate Entry Master of Science in Nursing (MSN) Program the following factors are required:

• Online application submitted via NursingCAS (http://nursingcas.org). View a video overview (http://www.screencast.com/t/TYbelPyAD) on completing NursingCAS application.

• NursingCAS application service fee

• Associate’s Degree or Diploma in Nursing from an NLNAC accredited program

• Submit official transcript(s) from each post-secondary institution attended to NursingCAS. International transcripts must be evaluated by an accredited foreign credential service. *For more information regarding international applicant requirements, click here (http://nursing.uthscsa.edu/students/intApplicants.asp).

• Grade Point Average of “B” (3.0 on a 4.0 scale) or higher is required

• Complete all 60 hours of required prerequisites courses. For a list of required courses, click here (http://nursing.uthscsa.edu/students/eqvTables.asp)

• Official copy of Test of English as a Foreign Language (TOEFL) or International English Language Testing System (IELTS) score, if international applicant. TOEFL and IELTS scores can be no more than two (2) years old. A minimum TOEFL score of 550 is required on the paper examination; minimum 250 on the computer-based examination; or, minimum 68 on the internet based examination. A minimum IELTS score of 6.5 for graduate admission is required. TOEFL school code: 3383

• Licensure as a Registered Nurse in Texas or Compact State

• Current CPR Certification

• Current Required Immunizations (http://nursing.uthscsa.edu/shc/hc_immunization.asp)

• Proof of Current Health Insurance Coverage (http://studentservices.uthscsa.edu/pdf/InsuranceVerif&DisclaimForm.pdf)
• Clear Criminal Background Check
• Basic Computer Skills
• Three Professional References (Submit via NursingCAS application)
• Current resume or curriculum vita

Application Deadline: Deadline for fall entrance is March 15 and July 1 (on a rolling basis).

Start Term: Fall

Contact:
Office of Admissions & Student Services
School of Nursing
UT Health Science Center at San Antonio
7703 Floyd Curl Drive, MSC 7945
San Antonio, Texas 78229-3900
Phone: 210-567-5805
Toll Free: 877-235-0341
FAX 210-567-6189
http://nursing.uthscsa.edu/

MSN Degree Requirements and Graduation

For the Master of Science in Nursing degree, a minimum of 40 semester credit hours of upper-division and graduate courses is required. All coursework must be completed within five years of enrollment in the program. A student must achieve no less than the total number of semester credit hours for the specific major/degree program, which may exceed 40 semester credit hours, in order to graduate.

The program of study includes required core courses and major courses. Graduate electives are offered in the School of Nursing or they may be taken at other universities.

To graduate, a student must have an overall minimum GPA of 3.0, at least a 3.0 average in nursing courses, no more than one C in a required course, and no incomplete grades.

The program is designed to be completed in 24 months of full-time study for entering either fall or spring however, part-time enrollment is feasible within the program plan. Selected courses may be offered during summer sessions, but students should not anticipate completing the program by attending summer sessions only or by attending less than four regular semesters. A clinical preceptorship also may be required.

MSN Curriculum and Plans of Study

MSN Semester Credit Hour Requirements

Graduate courses required for the MSN vary per major. All master's students are required to take 24 hours of coursework in residence. The program is completed through full-time or part-time enrollment.

MSN Required Core Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Theory</th>
<th>Clinical</th>
<th>Lab</th>
<th>Cont</th>
<th>SCH</th>
</tr>
</thead>
<tbody>
<tr>
<td>NURS 5306</td>
<td>Advanced Theory For The Practice of Nursing</td>
<td></td>
<td></td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>NURS 5307</td>
<td>Using Research For The Practice Of Nursing</td>
<td></td>
<td></td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>NURS 5356</td>
<td>Financial and Economic Evidence In Health Care</td>
<td></td>
<td></td>
<td></td>
<td>3</td>
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</tbody>
</table>
NURS 5339  Leadership For Quality, Safety And Health Policy

<table>
<thead>
<tr>
<th>Major</th>
<th>Clinical Hours</th>
<th>SCH</th>
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</thead>
<tbody>
<tr>
<td>Administrative Management</td>
<td>540</td>
<td>31</td>
</tr>
<tr>
<td>Adult-Gerontology Acute Care Nurse Practitioner</td>
<td>720(^1)</td>
<td>38</td>
</tr>
<tr>
<td>Clinical Nurse Leader</td>
<td>495(^1)</td>
<td>28</td>
</tr>
<tr>
<td>Family Nurse Practitioner</td>
<td>720</td>
<td>38</td>
</tr>
<tr>
<td>Nursing Education</td>
<td>180</td>
<td>36</td>
</tr>
<tr>
<td>Pediatric Nurse Practitioner Primary Care</td>
<td>720(^1)</td>
<td>38</td>
</tr>
<tr>
<td>Psychiatric Mental Health Nurse Practitioner</td>
<td>720(^1)</td>
<td>38</td>
</tr>
</tbody>
</table>

\(^1\) 60 clinical hours in health assessment for each nurse practitioner major are not applicable for certification.

Alternate Entry - Master of Science in Nursing Option

The Alternate Entry MSN for ADN/Diploma RNs requires completion of 21 semester credit hours of undergraduate nursing courses at the School of Nursing (http://nursing.uthscsa.edu) with a grade point average of 3.0 or higher. Of the minimum 40 semester credit hours of upper-division and graduate courses required for the MSN, 24 credit hours of coursework must be taken in residence. Full or Part-time enrollment is available.

**Alternate Entry Courses**\(^1\)

**Undergraduate Required Courses**

| NURS 3321 | Transitions In Professional Nursing | 3   |
| NURS 4333 | Nursing Leadership: Theoretical Foundations | 3   |
| NURS 3370 | Pathophysiology | 3   |
| NURS 3273 | Health Assessment and Promotion: Clinical Application | 2   |
| NURS 3272 | Health Assessment and Promotion: Theoretical Foundations | 2   |
| NURS 3374 | Research and Evidence-Based Practice | 3   |
| NURS 4327 | Population Focused Health: Theoretical Foundations | 3   |
| NURS 4227 | Population Focused Health: Clinical Applications | 2   |

Total Credit Hours: 180.0

**Theoretical Core Courses for All Graduate Students**

| NURS 5306 | Advanced Theory For The Practice of Nursing | 3   |

Total Credit Hours: 21.0
NURS 5307  Using Research For The Practice Of Nursing  3
NURS 5356  Financial and Economic Evidence In Health Care  3
NURS 5339  Leadership For Quality, Safety And Health Policy  3

<table>
<thead>
<tr>
<th>Major</th>
<th>Clinical Hours</th>
<th>SCH</th>
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<tr>
<td>Administrative Management</td>
<td>540</td>
<td>31</td>
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<tr>
<td>Clinical Nurse Leader</td>
<td>496</td>
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<tr>
<td>Adult-Gerontology Acute Care Nurse Practitioner</td>
<td>630²</td>
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<tr>
<td>Family Nurse Practitioner (FNP)</td>
<td>720²</td>
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<tr>
<td>Pediatric Nurse Practitioner Primary Care</td>
<td>720²</td>
<td>38</td>
</tr>
<tr>
<td>(PNPPC)</td>
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<tr>
<td>Psychiatric Mental Health Nurse Practitioner (PMHNP)</td>
<td>720²</td>
<td>38</td>
</tr>
<tr>
<td>Nursing Education</td>
<td>180</td>
<td>36</td>
</tr>
</tbody>
</table>

1 Administrative Management Alternate Entry option requires a total of 64 semester credit hours and 720 clinical hours (includes BSN and MSN requirements).
Clinical Nurse Leader Alternate Entry option requires a total of 61 semester credit hours and 675 clinical hours (includes BSN and MSN requirements).
Nurse Practitioner option requires a total of 71 semester credit hours and 900 clinical hours (includes BSN and MSN requirements).

2 60 clinical hours in health assessment for each nurse practitioner major are not applicable for certification

Adult-Gerontology Acute Care Nurse Practitioner (AG-ACNP)

The role of the Adult-Gerontology Acute Care Nurse Practitioner (AG-ACNP)\(^1\) is to provide advanced nursing care across the continuum of health care services to meet the specialized physiologic and psychological needs of patients with complex acute, critical, and chronic health conditions.

**AG-ACNP Courses - taken in addition to core courses**

**Theoretical Core Courses for All Graduate Students**

<table>
<thead>
<tr>
<th>Course</th>
<th>Theory</th>
<th>Clinical</th>
<th>Lab</th>
<th>Cont</th>
<th>SCH</th>
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<td>Leadership For Quality, Safety And Health Policy</td>
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<td>3</td>
</tr>
</tbody>
</table>

**Total Credit Hours:** 0.0 0.0 0.0 0.0 0.0 12.0

**Adult-Gerontology Acute Care Nurse Practitioner Major Courses**

<table>
<thead>
<tr>
<th>Course</th>
<th>Theory</th>
<th>Clinical</th>
<th>Lab</th>
<th>Cont</th>
<th>SCH</th>
</tr>
</thead>
<tbody>
<tr>
<td>NURS 5338</td>
<td>Advanced Pathophysiology</td>
<td></td>
<td></td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>NURS 6302</td>
<td>Advanced Pharmacotherapeutics</td>
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</tr>
<tr>
<td>Course Code</td>
<td>Course Title</td>
<td>Credit Hours</td>
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<td></td>
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<td></td>
</tr>
<tr>
<td>NURS 6210</td>
<td>Advanced Health Assessment and Clinical Reasoning</td>
<td>2</td>
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<tr>
<td>NURS 6110</td>
<td>Advanced Health Assessment: Clinical Application</td>
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<tr>
<td>NURS 6201</td>
<td>Advanced Mental Health Concepts</td>
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<tr>
<td>NURS 6101</td>
<td>Advanced Mental Health Concepts: Clinical Applications</td>
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<tr>
<td>NURS 6317</td>
<td>Healthcare Information Systems and Patient Care Technology</td>
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<tr>
<td>NURS 6250</td>
<td>Advanced Health Promotion, Health Protection, and Disease Prevention</td>
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<tr>
<td>NURS 6130</td>
<td>Nurse Practitioner Conceptual Basis For Advanced Practice Nursing</td>
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<tr>
<td>NURS 6455</td>
<td>Adult-Gerontology Acute Care Nurse Practitioner Diagnosis and Management: Concepts And Theory 1</td>
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<tr>
<td>NURS 6456</td>
<td>Adult-Gerontology Acute Care Nurse Practitioner Diagnosis and Management: Concepts And Theory 2</td>
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<tr>
<td>NURS 6655</td>
<td>Adult-Gerontology Acute Care Nurse Practitioner Diagnosis and Management 1: Clinical Application</td>
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<tr>
<td>NURS 6656</td>
<td>Adult-Gerontology Acute Care Nurse Practitioner Diagnosis and Management 2: Clinical Application</td>
<td>6</td>
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</tbody>
</table>

Total Credit Hours: 38.0

1 660 clinical hours apply to certification requirements.

The Theoretical Core Courses for All Graduate Students courses and the Adult-Gerontology Acute Care Nurse Practitioner Major Courses are required for a total of 50 semester credit hours. In the post-graduate option, each applicant is evaluated individually.

**Family Nurse Practitioner (FNP)**

This major addresses populations from newborns to the aging in primary care settings. Applicants for the FNP clinical major are encouraged to make a commitment to work with medically underserved populations, as defined by federal guidelines, upon completion of the program.
# FNP Courses - taken in addition to core courses

## Theoretical Core Courses for All Graduate Students

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<th>Lab</th>
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<tr>
<td>NURS 5356</td>
<td>Financial and Economic Evidence In Health Care</td>
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**Total Credit Hours:** 12.0

## Family Nurse Practitioner Major Courses

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<td>NURS 6210</td>
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Theoretical Core Courses for All Graduate Students

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Total Credit Hours: 0.0 0.0 0.0 0.0 12.0

Psychiatric Mental Health Nurse Practitioner Major Courses

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</table>

1 660 clinical hours apply to certification requirements

The Theoretical Core Courses for All Graduate Students courses and the Family Nurse Practitioner Major Courses are required for a total of 50 semester credit hours. In the post-graduate option, each applicant is evaluated individually.

Psychiatric Mental Health Nurse Practitioner (PMHNP)

This major addresses primary care of patients or persons with mental health or psychiatric problems.

PMHNP Courses - taken in addition to core courses

Theoretical Core Courses for All Graduate Students

<table>
<thead>
<tr>
<th>Course Code</th>
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<th>Theory</th>
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<th>Lab</th>
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Total Credit Hours: 0.0 0.0 0.0 0.0 12.0

Psychiatric Mental Health Nurse Practitioner Major Courses

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1 660 clinical hours apply to certification requirements

The Theoretical Core Courses for All Graduate Students courses and the Family Nurse Practitioner Major Courses are required for a total of 50 semester credit hours. In the post-graduate option, each applicant is evaluated individually.
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<td>Healthcare Information Systems and Patient Care Technology</td>
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<td>NURS 6250</td>
<td>Advanced Health Promotion, Health Protection, and Disease Prevention</td>
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<td>NURS 6623</td>
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</table>

**Total Credit Hours:** 38.0

1 660 clinical hours apply to certification requirements

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*The Theoretical Core Courses for All Graduate Students and the Psychiatric Mental Health Nurse Practitioner Major Courses are required for a total of 30 semester credit hours. In the post-graduate option, each applicant is evaluated individually.*

**Pediatric Nurse Practitioner Primary Care (PNPPC)**

This major focuses on primary care for newborns through adolescents.

**PNP Courses - taken in addition to core courses**

**Theoretical Core Courses for All Graduate Students**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Theory</th>
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### Pediatric Nurse Practitioner Primary Care Major Courses

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<td>Advanced Pharmacotherapeutics</td>
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School of Nursing

NURS 6615  Pediatric Nurse Practitioner (PNP)  Primary Care Diagnosis and Management 1: Clinical Application  300  6

NURS 6616  Pediatric Nurse Practitioner (PNP)  Primary Care Diagnosis & Management 2: Clinical Application  300  6

Total Credit Hours:  0.0  720.0  0.0  0.0  38.0

1  660 clinical hours apply to certification requirements

The Theoretical Core Courses for All Graduate Students courses and the Pediatric Nurse Practitioner Primary Care Major Courses are required for a total of 50 semester credit hours. In the post-graduate option, each applicant is evaluated individually.

Clinical Nurse Leader (CNL)

The Clinical Nurse Leader is prepared to be a direct care provider accountable for the care outcomes of a clinical population or a specified group of patients/clients in a health care system. Clinical Nurse Leader graduates must complete a total of 40 semester credit hours.

Standards for the Clinical Nurse Leader MSN program are established by The American Association of the Colleges of Nursing (AACN). Graduates are eligible for certification as a CNL.

CNL Courses - taken in addition to core courses

Theoretical Core Courses for All Graduate Students

<table>
<thead>
<tr>
<th>Course</th>
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Total Credit Hours:  0.0  0.0  0.0  0.0  12.0

Clinical Nurse Leader Major Courses

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NURS 6317  Healthcare Information Systems and Patient Care Technology 3

NURS 6230  Clinical Nurse Leader 1: Role of The Adv. Generalist in Healthcare Microsystems 2

NURS 6233  Clinical Nurse Leader 1: Role Of The Adv Generalist In Healthcare Microsystems - Clin Applications 2

NURS 6120  Clinical Nurse Leader Role 2: Seminar 1

NURS 6822  Clinical Nurse Leader Role II: Clinical Application For The Advanced Nursing Generalist 8

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Total Credit Hours: 0.0 510.0 0.0 0.0 28.0

1 450 clinical hours apply to certification requirements

The Theoretical Core Courses for All Graduate Students courses and the Clinical Nurse Leader Major Courses are required for a total of 40 semester credit hours.

Administrative Management

The Administrative Manager is prepared to lead and manage nursing care departments and service lines across the continuum of care.

Administrative Management graduates must complete 43 semester credit hours.

Standards for nursing administrative MSN programs are established by the specialty organization, The American Organization of Nurse Executives (AONE) (http://www.aone.org). Graduates are eligible for certification as a Certified Nurse Manager Leader for the credential, CNML; and from the American Nurses Credentialing Center (http://www.nursecredentialing.org) as a Nurse Executive for the credential, NE-BC.

Administrative Management Courses - taken in addition to core courses

Theoretical Core Courses for All Graduate Students

<table>
<thead>
<tr>
<th></th>
<th>Theory</th>
<th>Clinical</th>
<th>Lab</th>
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Total Credit Hours: 0.0 0.0 0.0 0.0 12.0
## Administrative Management Major Courses

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</table>

**Total Credit Hours:** 0.0 540.0 0.0 0.0 31.0

The Theoretical Core Courses for All Graduate Students courses and the Administrative Management Major Courses are required for a total of 43 semester credit hours.

## Nursing Education Courses

### Nursing Education Courses - taken in addition to core courses

#### Theoretical Core Courses for All Graduate Students

<table>
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<tr>
<th>Course Code</th>
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<td>NURS 5306</td>
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The University of Texas Health Science Center at San Antonio

NURS 5339 Leadership For Quality, Safety And Health Policy

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<td>Advanced Health Assessment and Clinical Reasoning</td>
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<td>Intro: Nursing Education Theories &amp; Trends</td>
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Total Credit Hours: 0.0 24.0 0.0 0.0 0.0 24.0

**MSN Program Outcomes**

At the completion of the program Masters of Science in Nursing (MSN) graduates will demonstrate the following:

1. Integrate scientific findings from nursing and related sciences into the delivery of advanced nursing care to populations in diverse settings.
2. Assume organizational and systems leadership to assure ethical and critical decision making at all systems’ levels for quality and patient safety.
3. Lead performance improvement technologies for quality, safety, and patient-centered care delivery.
4. Use translational scholarship and processes to achieve optimal patient care and care environmental outcomes.
5. Integrate meaningful information systems and healthcare technologies to support and improve safe, quality patient care.
6. Promulgate policy and effect change through advocacy that influences health care at appropriate levels.
7. Lead interprofessional teams using collaborative strategies to effect quality patient care and population health outcomes.
8. Synthesize broad ecological and social health determinants to design and deliver evidence-based clinical prevention and population health care and services to individuals, families, and aggregates/identified populations.
9. Integrate the knowledge, skills, and attitudes expected of a master’s-prepared nurse to design, deliver, and evaluate systems of care in diverse and multiple populations.

Graduate Program Policies

General Information

Information about academic progression, policies, or procedures, as well as curriculum information, may be obtained from the Office for Academic Affairs or appropriate Graduate Program Director.

Ph.D. students should refer to the Graduate School of Biomedical Sciences (GSBS) (http://gsbs.uthscsa.edu) Catalog.

Current Licensure as a Registered Nurse

Each graduate nursing student is required to maintain current licensure in good standing as a registered nurse in Texas, or a Compact State, throughout the graduate program. Students must provide a copy of the license verification to the Office for Academic Affairs. Failure to maintain a current license in good standing or to produce proof of current licensure in good standing is grounds for dismissal from the program. International students in the PhD program should contact the PhD program director regarding applicable licensure requirements.

Advisement

After acceptance, each student enrolled in the graduate program is assigned an academic advisor. When feasible, assignment is made on the basis of clinical area. The academic advisor serves as a resource person for the student in future program planning and academic counseling. Each student is expected to contact her/his advisor at least once a semester at the time of preregistration for the subsequent semester. A student may request a change in academic advisor through the Office for Academic Affairs. Ordinarily, requests for change in advisor can be accommodated, but, as a courtesy, the student should discuss the change with her/his current advisor. All changes in the student’s program plan must be submitted to the Office for Academic Affairs.

Independent Study

Graduate students may design their own independent study courses for one to four semester hours of credit. Guidelines for design and approval of Independent Studies are available from the Office for Academic Affairs. COGS must approve the Independent Study before the student may register for the course. Courses for summer and fall must be approved in the spring; courses for spring must be approved during the fall semester. Assistance can be provided by the student's academic advisor.

Dissertation

The Graduate School Instructions for Preparation and Submission of Thesis, Dissertations, and Dissertation Abstracts and forms for advisor approval are available from the GSBS (http://gsbs.uthscsa.edu) website. Doctoral students should obtain a copy of the Guidelines that provide information about the dissertation process.

Teaching Assistants

Opportunities are available for graduate nursing students enrolled part-time to work as teaching assistants in the School of Nursing. Interested applicants should contact the Office of Admissions and Student Services in the School of Nursing for additional information.

Transfer of Credit

Academic work for the Master of Science in Nursing and the Doctor of Nursing Practice are usually completed within The UT Health Science Center San Antonio (http://www.uthscsa.edu). However, students may, with the approval of the appropriate Program Director transfer from another accredited institution a maximum of six semester credit hours (9 quarter hours) of graduate credit applicable to their course of study leading toward the Master of Science in Nursing, Doctor of Nursing Practice or PhD in Nursing degrees. Students in the DNP Public Health Nurse Leader track may transfer any eligible University of Texas School of Public Health (UTSPH) course. Only one eligible UTSPH course with a grade of ‘C’ will be accepted provided that the student has not earned a C in another required course in the DNP program. Transfer of all other eligible UTSPH credits must show a grade of ‘A’ or ‘B’.

Additional graduate courses may be transferred from other accredited institutions upon the approval of the Committee on Graduate Studies (COGS), with the number not to exceed an additional six semester credit hours. Approval of courses beyond the six semester hours or courses to be accepted in lieu of required, clinical major or minor courses must be submitted to COGS. The student may obtain additional information about materials that must be submitted with the petition from the appropriate Graduate Program Director. Approval of any course for transfer, prior to registration for the course, is strongly recommended. PhD students must consult with their advisor prior to registering for cognate courses taken outside the School of Nursing.
Approval of transfer credit requires that the student be enrolled in the graduate program. The student must complete a Request for Transfer of Credit form and submit it to the appropriate Program Director with an official course description from the Catalog and must make certain that an official transcript, sent directly from the college or university attended, is in her/his file or request that a transcript be sent as soon as the course is completed. All courses must have been completed not more than five years before the degree is awarded. Courses in which a grade of C or less has been earned will not be accepted for transfer (see exception for students enrolled in the DNP Public Health Nurse Leader).

**Correspondence Courses**
Courses completed by correspondence are not accepted for graduate credit.

**Honors**
A graduate nursing student whose grade point average is 4.0 is awarded her/his degree with High Honors.

**Grades and Grade Point Average**
The standing of students in their work is expressed by five grades: A (above average graduate work), B (average graduate work), C (below average graduate work), D (failing graduate work), and F (failing graduate work). D and F grades are not acceptable for graduate credit. Students may also register in certain courses on a pass/fail basis, in which case the grade is recorded as either Pass (P) or Fail and no letter grade is assigned.

Other symbols used in reporting the standing of students in their classes are: WP = withdrawal from course passing; WF = withdrawal from course failing; I = incomplete; IP = in progress (thesis/dissertation courses only). AU records an audited course.

Courses in which a student receives a D or F will not be counted toward the total number of courses and/or hours required for a graduate degree in the School of Nursing or the Graduate School of Biomedical Sciences. However, all grades (A to F) are included in the computation of the grade point average. In computing the grade point average, the following scale of points per semester credit hour is used:

- A = 4 points (90-100)
- B = 3 points (80-89)
- C = 2 points (70-79)
- D = 1 point (60-69)
- F = 0 points (Below 60)

**Progression in the Graduate Program**
To continue in the graduate program, a student must:

- absolve any contingencies related to admission to the program within the time period stated in the letter of admission, or within the first semester if not stated;
- maintain satisfactory progress (B average in first 9 hours) if conditionally admitted;
- receive no more than one C in any required course;
- maintain a minimum cumulative grade point average of B (3.0) for all courses taken while enrolled in the graduate program.

Should a student fail to meet the criteria for continuance in the program, her/his progress will be reviewed by the Committee on Graduate Studies (COGS) which may:

- impose conditions as requirements for continuation in the program, or
- terminate the student’s enrollment in the program, with the consent of the Dean of the School of Nursing or the Dean of the Graduate School of Biomedical Sciences (http://gsbs.uthscsa.edu).

**Scholastic Probation**
A student whose cumulative grade point average or nursing grade point average falls below 3.0 will be placed on probation and warned that continuation in the graduate program is in jeopardy.

The probation period shall extend no longer than two consecutive semesters of enrollment. No more than one probationary period shall be permitted. NURE (elective) courses may not be taken during the probationary period, and the student may not drop any course after the first class day.

To be removed from probation, the student must achieve a 3.0 cumulative grade point average by the completion of the probationary period. Failure to accomplish the required average will result in the student’s dismissal from the program.

The progress of students on probation will be reviewed by the Committee on Graduate Studies (COGS) each semester. A student on probation will not be admitted to candidacy nor awarded a degree. Satisfactory progress toward the degree is required throughout the student’s enrollment. The
Committee on Graduate Studies (COGS) may terminate a student’s enrollment at any time if the student does not meet the criteria for continuance in the program.

**Probation Policy and Procedure**

1. **Definition:** Probation is the status of the student whose progression in the program may be delayed, interrupted or conditional due to the criteria listed below.

2. **Criteria for Probation in the Nursing Program** includes any one of the following:
   - Earning a grade of "C" in a graduate course required for the program
   - Earning a grade in a required graduate course that drops the GPA below 3.0
   - Failure to meet any of the School of Nursing Policies related to academic or professional conduct
   - Failure to meet the terms of professional integrity standards defined in the current University Catalog (http://studentservices.uthscsa.edu/pdf/Catalog2011-2012.pdf), the Texas State Board of Nursing Nurse Practice Act (http://www.bon.texas.gov/nursinglaw/npa.html), the Texas State Board of Nursing Rules and Regulations (http://www.bon.texas.gov/nursinglaw/rr.html) and the American Nurses Association Code of Ethics (http://www.nursingworld.org/MainMenuCategories/EthicsStandards/CodeofEthicsforNurses).

3. **Probation Procedure**
   - **A. Initial Review of Recommendation for Probation**
     - i. The faculty member of record for each course will notify, in writing, a student who meets the criteria set forth in provision 2 and refer the student to the Associate Dean for Academic Affairs within 2 business days of the occurrence of the criteria set forth in provision 2.
     - ii. The student may present his/her case to the Associate Dean for Academic Affairs, if requested in writing, within 3 business days of notification of the probation recommendation. If the student wishes to bring a person outside of the School of Nursing to the meeting, he/she must indicate this in the request to the Associate Dean for Academic Affairs. If the person attending the meeting with the student is an attorney, the meeting will be held with the University attorney present. The student may be accompanied by her/his academic advisor during the Associate Dean for Academic Affairs review process.

   - **B.** If the review results in validation of the criteria set forth in provision 2, the Associate Dean for Academic Affairs will recommend in writing one or more of the following actions to the Dean of the School of Nursing:
     - i. Earning a Grade of C or a grade that drops the GPA below 3.0
       - a. A written "Probation Letter of Expectation" that determines the length and conditions of the probation period which may include,
         - Referral of the student to resources and support services for academic success
         - Referral of the student to the faculty to devise a written plan for academic success.
         - Referral of the student to the Associate Dean for Admissions and Student Services for non-academic support
     - ii. Failure to meet School of Nursing Policies or failure to meet the terms of professional integrity standards defined in the current University Catalog (http://studentservices.uthscsa.edu/pdf/Catalog2011-2012.pdf), the Texas State Board of Nursing Nurse Practice Act (http://www.bon.texas.gov/nursinglaw/npa.html), the Texas State Board of Nursing Rules and Regulations (http://www.bon.texas.gov/nursinglaw/rr.html) and the American Nurses Association Code of Ethics (http://www.nursingworld.org/MainMenuCategories/EthicsStandards/CodeofEthicsforNurses)
       - a. The Associate Dean for Academic Affairs will present a recommendation for the "Probation Letter of Expectation" that determines the length and conditions of the probation to the Committee on Graduate Studies.
       - b. The Committee on Graduate Studies will act on the recommendation for the "Probation Letter of Expectation".
     - iii. The final decision for probation and the terms of the probation will be made by the Committee on Graduate Studies and will be delivered to the student in writing by certified letter to the student’s address of record and copied to the Dean of the School of Nursing.
     - iv. When indicated, the incident will be reported to the local law enforcement agency and/or other appropriate agencies, institutions, and/or regulatory bodies by the Associate Dean for Academic Affairs.
     - v. If the review of the recommendation for probation results in a recommendation for dismissal, the policy and procedure for dismissal will supersede the policy and procedure for probation.

**Dismissal Policy and Procedure**

1. **Definition:** Dismissal is the removal of a student from the School of Nursing Graduate Program. A student who is dismissed from the graduate program may not continue in the graduate nursing program and is not eligible for readmission.

2. **Criteria for Dismissal from the Graduate Nursing Program** includes any one of the following:
   - Earning a grade of “D”, “F” or “Fail” in any required graduate course
   - Earning a grade of “C” in 6 or more credit hours of required graduate coursework regardless of GPA or in two required graduate courses regardless of the number of credit hours and GPA
   - Failure to meet the conditions of the School of Nursing “Probation Letter of Expectation”
D. Failure to meet the terms of professional integrity and ethical standards defined in the current University Catalog (http://studentservices.uthscsa.edu/pdf/Catalog2011-2012.pdf), the Texas State Board of Nursing Nurse Practice Act (http://www.bon.texas.gov/nursinglaw/npa.html), the Texas State Board of Nursing Rules and Regulations (http://www.bon.texas.gov/nursinglaw/rr.html) and the American Nurses Association Code of Ethics (http://www.nursingworld.org/MainMenuCategories/EthicsStandards/CodeofEthicsforNurses).

E. Failure to notify the school of non-matriculation for three consecutive semesters (excluding summers). Students must re-apply for admission.

3. Dismissal Procedure for Academic Reasons or Failure to Meet the Terms of Professional Integrity and Ethical Standards.

A. The faculty member of record for each course will notify, in writing, a student who meets the criteria set forth in provision 2 and refer the student to the Associate Dean for Academic Affairs within 2 business days of the occurrence of the criteria set forth in provision 2.

B. The Associate Dean for Academic Affairs will notify the student, in writing, that his/her case will be presented to the Committee on Graduate Studies. The written communication will include the date and time of the presentation to the Committee on Graduate Studies.

The student may present her/his case to the Committee on Graduate Studies, if requested in writing, to the Committee of Graduate Studies within 3 business days of notification by the Associate Dean for Academic Affairs of the dismissal recommendation. The student must indicate in the request to the Committee on Graduate Studies for a meeting that they wish to bring a person outside of the School of Nursing to the meeting. If the person attending the meeting with the student is an attorney, the meeting will be held with the University attorney present. The student may be accompanied by her/his academic advisor during the Committee on Graduate Studies review process.

C. If the review results in validation of the criteria set forth in provision 2, the Committee on Graduate Studies may recommend one or more of the following actions:
   i. Probation
   ii. Dismissal from the School of Nursing

D. A written recommendation from the Chairperson of the Committee on Graduate Studies will be made to the Dean of the School of Nursing.

E. The final decision will be made by the Dean and will be delivered to the student in writing by certified letter to the student’s address of record.

F. When indicated, the incident will be reported to the local law enforcement agency and/or other appropriate agencies, institutions, and/or regulatory bodies

Petition

Students may petition the Committee on Graduate Studies (COGS) for the consideration of relevant issues influencing program progression and/or completion. Students who wish to petition COGS should consult with their advisors, and then complete the Student Petition Form that is available from the Office for Academic Affairs. Decisions regarding the petition will be communicated in writing to the students.

Petitions for reconsideration of the decision of COGS are reviewed by the Dean of the School of Nursing. The Dean’s decisions are final.

Repetition of a Course

Credit for courses in which a D or F is received may not be repeated and is grounds for dismissal as indicated in the dismissal policy

The Semester Credit Hour

1The unit of measure for credit purposes is the semester credit hour. One semester credit hour is given for each one clock hour of class, one clock hour of seminar, or three clock hours of laboratory/practicum/computer lab experience per week, per semester, with the exception of selected and summer sessions during which the class, seminar, and practicum hours may be concentrated but provide equivalent clock hours.

Thesis and Dissertation Course Report

Thesis and dissertation courses may be reported as In Progress (IP) until the work is completed. Thesis and dissertation courses are not counted in the grade point average.

Examinations

Examinations must be taken on the date and time scheduled. If extenuating circumstances prevent the student from taking an examination, prior approval must be granted by the course instructor to postpone the examination. If a student misses an examination without prior approval by the instructor, a grade of F will be recorded for the examination.

Readmission

Individuals who have previously been enrolled in graduate nursing courses should complete an Application for Readmission. Transcripts from any colleges or universities attended since the time of the previous enrollment in the graduate programs must be submitted. Applicants may be requested to provide recent professional references. Proof of current licensure as a registered nurse in Texas is also required.

Individuals who have not registered in three consecutive terms, excluding summers, must apply for readmission unless they were previously granted official permission for leave of absence.

Those seeking readmission are subject to all requirements, procedures, and acceptance considerations outlined in this Catalog.
Post-Graduate Certificate

MSN-prepared nurses interested in obtaining a Post-Graduate Certificate (http://nursing.uthscsa.edu/programs/grad/msn_post.aspx) as a Nurse Practitioner may select from four areas of specialization: (1) Adult Gerontology-Acute Care Nurse Practitioner, (2) Family Nurse Practitioner, (3) Pediatric Nurse Practitioner Primary Care, and (4) Psychiatric Mental Health Nurse Practitioner. Students can expect to take a minimum of 26 semester credit hours towards their certificate. However, total semester credit hours needed for completion is determined on a case-by-case basis once admission is offered.

MSN-prepared nurses interested in obtaining a Post Graduate Certificate in Nursing Education must complete a minimum of 15 semester credit hours towards their certificate. However, total semester credit hours needed for completion is determined on a case-by-case basis once admission is offered.

Post-Graduate Certificate Admissions Requirements

Specialization, Program of Study: Family Nurse Practitioner, Pediatric Nurse Practitioner-Primary Care, Psychiatric Mental Health Nurse Practitioner, Adult-Gerontology Acute Care Nurse Practitioner

Length: 1 to 2 years

General Admission Requirements:

• Online application submitted via NursingCAS (http://nursingcas.org). View a video overview (http://www.screencast.com/t/TYbelPyAD) on completing NursingCAS application.
• NursingCAS application fee
• Master’s in Nursing
  • Completion of a graduate course in health assessment with a grade of “B” or better.
  • Completion of a graduate pathophysiology course with a grade of “B” or better.
  • Completion of a graduate pharmacology course with a grade of “B” or better.
• Submit official transcript(s) from each post-secondary institution attended, even if no degree awarded, to NursingCAS. International transcripts must be evaluated by an accredited foreign credential service. *For more information regarding international applicant requirements, click here (http://nursing.uthscsa.edu/students/intApplicants.asp).
• Grade Point Average of “B” (3.0 on a 4.0 scale) or higher is required
• Basic statistics course
• Official copy of Test of English as a Foreign Language (TOEFL) or International English Language Testing System (IELTS) score, if international applicant. TOEFL and IELTS scores can be no more than two (2) years old. A minimum TOEFL score of 550 is required on the paper examination; minimum 250 on the computer-based examination; or, minimum 68 on the internet based examination. A minimum IELTS score of 6.5 for graduate admission is required. TOEFL school code: 3383
• Licensure as a Registered Nurse in Texas or Compact State
• Current CPR Certification
• Current Required Immunizations (http://nursing.uthscsa.edu/shc/hc_immunization.asp)
• Proof of Current Health Insurance Coverage (http://studentservices.uthscsa.edu/pdf/InsuranceVerif&DisclaimForm.pdf)
• Clear Criminal Background Check
• Basic Computer Skills
• Three Professional References(Submit via NursingCAS application)
• Professional Goal Statement/Essay (Submit via Supplemental Application, not via NursingCAS application)
• Current resume or curriculum vita

Application Deadline: Deadline for summer entrance is February 1 for Family Nurse Practitioner, Pediatric Nurse Practitioner-Primary Care, Adult-Gerontology Acute Care Nurse Practitioner

Deadline for spring entrance is July 1 for Psychiatric Mental Health Nurse Practitioner

Start Term: Summer or Spring

Contact:

Office of Admissions & Student Services
School of Nursing
UT Health Science Center at San Antonio
7703 Floyd Curl Drive, MSC 7945
Post-Graduate Certificate Requirements and Graduation

The Post Graduate Certificate Program option is available for students who hold a Master's degree in nursing and desire a Nurse Practitioner specialization in Adult-Gerontology Acute Care, Family, Pediatric Primary Care, Psychiatric Mental Health, or Nursing Education.

Students must complete the following pre-requisites:

- A graduate course in health assessment with a grade of “B” or better.
- A graduate pathophysiology course with a grade of “B” or better.
- A graduate pharmacology course with a grade of “B” or better.

Post-Graduate Certificate Curriculum and Plans of Study

MSN-prepared nurses interested in obtaining a Post-Graduate Certificate as a Nurse Practitioner may select from three areas of specialization: (1) Adult Gerontology-Acute Care Nurse Practitioner, (2) Family Nurse Practitioner, (3) Pediatric Nurse Practitioner Primary Care, and (4) Psychiatric Mental Health Nurse Practitioner. Students can expect to take a minimum of 26 semester credit hours towards their certificate. However, total semester credit hours needed for completion is determined on a case-by-case basis once admission is offered.

MSN-prepared nurses interested in obtaining a Post Graduate Certificate in Nursing Education must complete a minimum of 15 semester credit hours towards their certificate. However, total semester credit hours needed for completion is determined on a case-by-case basis once admission is offered.

Post-Graduate Certificate students are subject to general and graduate policies of the Master’s degree program and the School of Nursing. Students who complete the certificate program are eligible to take National credentialing boards.

Nursing Education

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<th>Course Title</th>
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**Adult Gerontology Acute Care Nurse Practitioner (AG-ACNP)**

<table>
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<th>Course Title</th>
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**Family Nurse Practitioner (FNP)**

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*School of Nursing*
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<td>Family Nurse Practitioner (FNP) Diagnosis Management of Young Families: Concepts &amp; Theory</td>
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<td>NURS 6620</td>
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**Total Credit Hours:** 0.0 600.0 0.0 0.0 26.0

### Psychiatric Mental Health Nurse Practitioner (PMHNP)

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**Total Credit Hours:** 0.0 600.0 0.0 0.0 0.0 26.0

**Pediatric Nurse Practitioner Primary Care (PNP-PC)**

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<td>Advanced Mental Health Concepts</td>
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<td>NURS 6423</td>
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</table>
Graduate Program Policies

General Information

Information about academic progression, policies, or procedures, as well as curriculum information, may be obtained from the Office for Academic Affairs or appropriate Graduate Program Director.

Ph.D. students should refer to the Graduate School of Biomedical Sciences (GSBS) (http://gsbs.uthscsa.edu) Catalog.

Current Licensure as a Registered Nurse

Each graduate nursing student is required to maintain current licensure in good standing as a registered nurse in Texas, or a Compact State, throughout the graduate program. Students must provide a copy of the license verification to the Office for Academic Affairs. Failure to maintain a current license in good standing or to produce proof of current licensure in good standing is grounds for dismissal from the program. International students in the PhD program should contact the PhD program director regarding applicable licensure requirements.

Advisement

After acceptance, each student enrolled in the graduate program is assigned an academic advisor. When feasible, assignment is made on the basis of clinical area. The academic advisor serves as a resource person for the student in future program planning and academic counseling. Each student is expected to contact her/his advisor at least once a semester at the time of preregistration for the subsequent semester. A student may request a change in academic advisor through the Office for Academic Affairs. Ordinarily, requests for change in advisor can be accommodated, but, as a courtesy, the student should discuss the change with her/his current advisor. All changes in the student’s program plan must be submitted to the Office for Academic Affairs.

Independent Study

Graduate students may design their own independent study courses for one to four semester hours of credit. Guidelines for design and approval of Independent Studies are available from the Office for Academic Affairs. COGS must approve the Independent Study before the student may register for the course. Courses for summer and fall must be approved in the spring; courses for spring must be approved during the fall semester. Assistance can be provided by the student’s academic advisor.

Dissertation

The Graduate School Instructions for Preparation and Submission of Thesis, Dissertations, and Dissertation Abstracts and forms for advisor approval are available from the GSBS (http://gsbs.uthscsa.edu) website. Doctoral students should obtain a copy of the Guidelines that provide information about the dissertation process.

Teaching Assistants

Opportunities are available for graduate nursing students enrolled part-time to work as teaching assistants in the School of Nursing. Interested applicants should contact the Office of Admissions and Student Services in the School of Nursing for additional information.

Transfer of Credit

Academic work for the Master of Science in Nursing and the Doctor of Nursing Practice are usually completed within The UT Health Science Center San Antonio (http://www.uthscsa.edu). However, students may, with the approval of the appropriate Program Director transfer from another accredited institution a maximum of six semester credit hours (9 quarter hours) of graduate credit applicable to their course of study leading toward the Master of Science in Nursing, Doctor of Nursing Practice or PhD in Nursing degrees. Students in the DNP Public Health Nurse Leader track may transfer any eligible University of Texas School of Public Health (UTSPH) course. Only one eligible UTSPH course with a grade of ‘C’ will be accepted provided that the student has not earned a C in another required course in the DNP program. Transfer of all other eligible UTSPH credits must show a grade of ‘A’ or ‘B’.

Additional graduate courses may be transferred from other accredited institutions upon the approval of the Committee on Graduate Studies (COGS), with the number not to exceed an additional six semester credit hours. Approval of courses beyond the six semester hours or courses to be accepted in lieu of required, clinical major or minor courses must be submitted to COGS. The student may obtain additional information about materials that must

<table>
<thead>
<tr>
<th>Course Code</th>
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<tbody>
<tr>
<td>NURS 6616</td>
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<td>6</td>
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<tr>
<td></td>
<td>Total Credit Hours:</td>
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</tr>
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</table>
be submitted with the petition from the appropriate Graduate Program Director. Approval of any course for transfer, prior to registration for the course, is strongly recommended. PhD students must consult with their advisor prior to registering for cognate courses taken outside the School of Nursing.

Approval of transfer credit requires that the student be enrolled in the graduate program. The student must complete a Request for Transfer of Credit form and submit it to the appropriate Program Director with an official course description from the Catalog and must make certain that an official transcript, sent directly from the college or university attended, is in her/his file or request that a transcript be sent as soon as the course is completed. All courses must have been completed not more than five years before the degree is awarded. Courses in which a grade of C or less has been earned will not be accepted for transfer (see exception for students enrolled in the DNP Public Health Nurse Leader).

**Correspondence Courses**

Courses completed by correspondence are not accepted for graduate credit.

**Honors**

A graduate nursing student whose grade point average is 4.0 is awarded her/his degree with High Honors.

**Grades and Grade Point Average**

The standing of students in their work is expressed by five grades: A (above average graduate work), B (average graduate work), C (below average graduate work), D (failing graduate work), and F (failing graduate work). D and F grades are not acceptable for graduate credit. Students may also register in certain courses on a pass/fail basis, in which case the grade is recorded as either Pass (P) or Fail and no letter grade is assigned.

Other symbols used in reporting the standing of students in their classes are: WP=withdrawal from course passing; WF=withdrawal from course failing; I=incomplete; IP=in progress (thesis/dissertation courses only). AU records an audited course.

Courses in which a student receives a D or F will not be counted toward the total number of courses and/or hours required for a graduate degree in the School of Nursing or the Graduate School of Biomedical Sciences. However, all grades (A to F) are included in the computation of the grade point average. In computing the grade point average, the following scale of points per semester credit hour is used:

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<th>Grade</th>
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<td>A</td>
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</tr>
<tr>
<td>B</td>
<td>3</td>
</tr>
<tr>
<td>C</td>
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<tr>
<td>D</td>
<td>1</td>
</tr>
<tr>
<td>F</td>
<td>0</td>
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</tbody>
</table>

**Progression in the Graduate Program**

To continue in the graduate program, a student must:

- absolve any contingencies related to admission to the program within the time period stated in the letter of admission, or within the first semester if not stated;
- maintain satisfactory progress (B average in first 9 hours) if conditionally admitted;
- receive no more than one C in any required course;
- maintain a minimum cumulative grade point average of B (3.0) for all courses taken while enrolled in the graduate program.

Should a student fail to meet the criteria for continuance in the program, her/his progress will be reviewed by the Committee on Graduate Studies (COGS) which may:

- impose conditions as requirements for continuation in the program, or
- terminate the student's enrollment in the program, with the consent of the Dean of the School of Nursing or the Dean of the Graduate School of Biomedical Sciences (http://gsbs.uthscsa.edu).

**Scholastic Probation**

A student whose cumulative grade point average or nursing grade point average falls below 3.0 will be placed on probation and warned that continuation in the graduate program is in jeopardy.

The probation period shall extend no longer than two consecutive semesters of enrollment. No more than one probationary period shall be permitted. NURE (elective) courses may not be taken during the probationary period, and the student may not drop any course after the first class day.

To be removed from probation, the student must achieve a 3.0 cumulative grade point average by the completion of the probationary period. Failure to accomplish the required average will result in the student's dismissal from the program.
The progress of students on probation will be reviewed by the Committee on Graduate Studies (COGS) each semester. A student on probation will not be admitted to candidacy nor awarded a degree. Satisfactory progress toward the degree is required throughout the student’s enrollment. The Committee on Graduate Studies (COGS) may terminate a student’s enrollment at any time if the student does not meet the criteria for continuance in the program.

Probation Policy and Procedure

1. Definition: Probation is the status of the student whose progression in the program may be delayed, interrupted or conditional due to the criteria listed below.

2. Criteria for Probation in the Nursing Program includes any one of the following:
   A. Earning a grade of “C” in a graduate course required for the program
   B. Earning a grade in a required graduate course that drops the GPA below 3.0
   C. Failure to meet any of the School of Nursing Policies related to academic or professional conduct
   D. Failure to meet the terms of professional integrity standards defined in the current University Catalog (http://studentservices.uthscsa.edu/pdf/Catalog2011-2012.pdf), the Texas State Board of Nursing Nurse Practice Act (http://www.bon.texas.gov/nursinglaw/npa.html), the Texas State Board of Nursing Rules and Regulations (http://www.bon.texas.gov/nursinglaw/rr.html) and the American Nurses Association Code of Ethics (http://www.nursingworld.org/MainMenuCategories/EthicsStandards/CodeofEthicsforNurses).

3. Probation Procedure
   A. Initial Review of Recommendation for Probation
      i The faculty member of record for each course will notify, in writing, a student who meets the criteria set forth in provision 2 and refer the student to the Associate Dean for Academic Affairs within 2 business days of the occurrence of the criteria set forth in provision 2.
      ii The student may present his/her case to the Associate Dean for Academic Affairs, if requested in writing, within 3 business days of notification of the probation recommendation. If the student wishes to bring a person outside of the School of Nursing to the meeting, he/she must indicate this in the request to the Associate Dean for Academic Affairs. If the person attending the meeting with the student is an attorney, the meeting will be held with the University attorney present. The student may be accompanied by her/his academic advisor during the Associate Dean for Academic Affairs review process.
   B. If the review results in validation of the criteria set forth in provision 2, the Associate Dean for Academic Affairs will recommend in writing one or more of the following actions to the Dean of the School of Nursing:
      i Earning a Grade of C or a grade that drops the GPA below 3.0
         a. A written “Probation Letter of Expectation” that determines the length and conditions of the probation period which may include, but are not limited, any one of the following:
            • Referral of the student to resources and support services for academic success
            • Referral of the student to the faculty to devise a written plan for academic success.
            • Referral of the student to the Associate Dean for Admissions and Student Services for non-academic support
      ii Failure to meet School of Nursing Policies or failure to meet the terms of professional integrity standards defined in the current University Catalog (http://studentservices.uthscsa.edu/pdf/Catalog2011-2012.pdf), the Texas State Board of Nursing Nurse Practice Act (http://www.bon.texas.gov/nursinglaw/npa.html), the Texas State Board of Nursing Rules and Regulations (http://www.bon.texas.gov/nursinglaw/rr.html) and the American Nurses Association Code of Ethics (http://www.nursingworld.org/MainMenuCategories/EthicsStandards/CodeofEthicsforNurses)
         a. The Associate Dean for Academic Affairs will present a recommendation for the “Probation Letter of Expectation” that determines the length and conditions of the probation to the Committee on Graduate Studies.
         b. The Committee on Graduate Studies will act on the recommendation for the “Probation Letter of Expectation”.
      iii The final decision for probation and the terms of the probation will be made by the Committee on Graduate Studies and will be delivered to the student in writing by certified letter to the student’s address of record and copied to the Dean of the School of Nursing.
      iv When indicated, the incident will be reported to the local law enforcement agency and/or other appropriate agencies, institutions, and/or regulatory bodies by the Associate Dean for Academic Affairs.
      v If the review of the recommendation for probation results in a recommendation for dismissal, the policy and procedure for dismissal will supersede the policy and procedure for probation.

Dismissal Policy and Procedure

1. Definition: Dismissal is the removal of a student from the School of Nursing Graduate Program. A student who is dismissed from the graduate program may not continue in the graduate nursing program and is not eligible for readmission.

2. Criteria for Dismissal from the Graduate Nursing Program includes any one of the following:
   A. Earning a grade of “D”, “F” or “Fail” in any required graduate course
   B. Earning a grade of “C” in 6 or more credit hours of required graduate coursework regardless of GPA or in two required graduate courses regardless of the number of credit hours and GPA
   C. Failure to meet the conditions of the School of Nursing “Probation Letter of Expectation”
D. Failure to meet the terms of professional integrity and ethical standards defined in the current University Catalog (http://studentservices.uthscsa.edu/pdf/Catalog2011-2012.pdf), the Texas State Board of Nursing Nurse Practice Act (http://www.bon.texas.gov/nursinglaw/npa.html), the Texas State Board of Nursing Rules and Regulations (http://www.bon.texas.gov/nursinglaw/rr.html) and the American Nurses Association Code of Ethics (http://www.nursingworld.org/MainMenuCategories/EthicsStandards/CodeofEthicsforNurses).

E. Failure to notify the school of non-matriculation for three consecutive semesters (excluding summers). Students must re-apply for admission.

3. Dismissal Procedure for Academic Reasons or Failure to Meet the Terms of Professional Integrity and Ethical Standards.

A. The faculty member of record for each course will notify, in writing, a student who meets the criteria set forth in provision 2 and refer the student to the Associate Dean for Academic Affairs within 2 business days of the occurrence of the criteria set forth in provision 2.

B. The Associate Dean for Academic Affairs will notify the student, in writing, that his/her case will be presented to the Committee on Graduate Studies. The written communication will include the date and time of the presentation to the Committee on Graduate Studies.

The student may present her/his case to the Committee on Graduate Studies, if requested in writing, to the Committee of Graduate Studies within 3 business days of notification by the Associate Dean for Academic Affairs of the dismissal recommendation. The student must indicate in the request to the Committee on Graduate Studies for a meeting that they wish to bring a person outside of the School of Nursing to the meeting. If the person attending the meeting with the student is an attorney, the meeting will be held with the University attorney present. The student may be accompanied by her/his academic advisor during the Committee on Graduate Studies review process.

C. If the review results in validation of the criteria set forth in provision 2, the Committee on Graduate Studies may recommend one or more of the following actions:

   i Probation
   ii Dismissal from the School of Nursing

D. A written recommendation from the Chairperson of the Committee on Graduate Studies will be made to the Dean of the School of Nursing.

E. The final decision will be made by the Dean and will be delivered to the student in writing by certified letter to the student’s address of record.

F. When indicated, the incident will be reported to the local law enforcement agency and/or other appropriate agencies, institutions, and/or regulatory bodies

Petition

Students may petition the Committee on Graduate Studies (COGS) for the consideration of relevant issues influencing program progression and/or completion. Students who wish to petition COGS should consult with their advisors, and then complete the Student Petition Form that is available from the Office for Academic Affairs. Decisions regarding the petition will be communicated in writing to the students.

Petitions for reconsideration of the decision of COGS are reviewed by the Dean of the School of Nursing. The Dean’s decisions are final.

Repetition of a Course

Credit for courses in which a D or F is received may not be repeated and is grounds for dismissal as indicated in the dismissal policy

The Semester Credit Hour

1The unit of measure for credit purposes is the semester credit hour. One semester credit hour is given for each one clock hour of class, one clock hour of seminar, or three clock hours of laboratory/practicum/computer lab experience per week, per semester, with the exception of selected and summer sessions during which the class, seminar, and practicum hours may be concentrated but provide equivalent clock hours.

Thesis and Dissertation Course Report

Thesis and dissertation courses may be reported as In Progress (IP) until the work is completed. Thesis and dissertation courses are not counted in the grade point average.

Examinations

Examinations must be taken on the date and time scheduled. If extenuating circumstances prevent the student from taking an examination, prior approval must be granted by the course instructor to postpone the examination. If a student misses an examination without prior approval by the instructor, a grade of F will be recorded for the examination.

Readmission

Individuals who have previously been enrolled in graduate nursing courses should complete an Application for Readmission. Transcripts from any colleges or universities attended since the time of the previous enrollment in the graduate programs must be submitted. Applicants may be requested to provide recent professional references. Proof of current licensure as a registered nurse in Texas is also required.

Individuals who have not registered in three consecutive terms, excluding summers, must apply for readmission unless they were previously granted official permission for leave of absence.

Those seeking readmission are subject to all requirements, procedures, and acceptance considerations outlined in this Catalog.
Doctor of Philosophy in Nursing Program

The Doctor of Philosophy (PhD) in Nursing (http://nursing.uthscsa.edu/programs/grad/phd.aspx) prepares students for careers as clinical nurse scientists and faculty. Admission into the program is only offered once a year, with an application deadline of February 1st for students to begin classes in Fall. Admission can occur at the Post-BSN or Post-MSN levels. Individuals with MSN degrees will receive advanced placement related to their graduate coursework. In contrast to the practice-based DNP, this doctoral program is rooted in foundations of theory and research with the expectation of students to become teachers and disseminators of knowledge in the field of Nursing.

PhD Admissions Requirements

Degree: PhD

Specialization, Program of Study: Nursing Science

Program Length: 3 – 6 Years

Admissions Requirements:
To be considered for admission to the Doctor of Philosophy in Nursing Program the following factors are required:

- NursingCAS application fee
- Bachelors in Nursing and/or Masters in Nursing from a nationally accredited school of nursing (NLNAC, CCNE)
- Submit official transcript(s) from each post-secondary institution attended, even if no degree awarded, to NursingCAS. International transcripts must be evaluated by an accredited foreign credential service. *For more information regarding international applicant requirements, click here (http://nursing.uthscsa.edu/students/intApplicants.asp).
- Grade Point Average of “B” (3.0 on a 4.0 scale) or higher is required
- Basic statistics course
- Official copy of Test of English as a Foreign Language (TOEFL) or International English Language Testing System (IELTS) score, if international applicant. TOEFL and IELTS scores can be no more than two (2) years old. A minimum TOEFL score of 550 is required on the paper examination; minimum 250 on the computer-based examination; or, minimum 68 on the internet based examination. A minimum IELTS score of 6.5 for graduate admission is required. TOEFL school code: 3383
- Licensure as a Registered Nurse in Texas or Compact State. International applicants should contact the PhD program director to determine licensure requirements.
- Current CPR Certification
- Current Required Immunizations (http://nursing.uthscsa.edu/shc/hc_immunization.asp)
- Proof of Current Health Insurance Coverage (http://studentservices.uthscsa.edu/pdf/InsuranceVerif&DisclaimForm.pdf)
- Clear Criminal Background Check
- Basic Computer Skills
- Three Professional References (Submit via NursingCAS Application)
- Official results from the GRE exam taken within the last 5 years should indicate strong verbal, quantitative and analytic potential.
- Professional Goal Statement/Essay (Submit via Supplemental Application, not via NursingCAS application)
- Current resume or curriculum vita
- Interview

Application Deadline: Deadline for fall entrance is February 1 (PhD applications are accepted only once each year)

Start Term: Fall

Contact:
Office of Admissions & Student Services
School of Nursing
UT Health Science Center at San Antonio
7703 Floyd Curl Drive, MSC 7945
San Antonio, Texas 78229-3900
Phone: 210-567-5805
Graduate PhD Degree Requirements and Graduation

Students may enter the PhD program post baccalaureate degree in nursing or post master’s degree in nursing.

Full-time and part-time study options are available. Part-time study for doctoral students is defined as six credit hours or two courses per semester.

Students complete 81 semester credit hours (which includes previous graduate course work) in three to six years.

All policies of the Graduate School of Biomedical Sciences http://gsbs.uthscsa.edu are applicable to this program of study.

Graduate Curriculum and Plans of Study

Doctor of Philosophy (PhD) Program of Study

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<td>Mixed Methods For Clinical Nurse Scientists</td>
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</table>
### Graduate Ph.D. Program Outcomes

At the completion of the doctoral program the student will:

1. Advance the discipline of nursing through the generation of new knowledge and theory.
2. Demonstrate excellence as a clinical researcher in the health sciences in a focal area of nursing.
3. Synthesize theories from natural and/or behavioral sciences for application to a specified area of nursing.
5. Assume nurse scientist roles within academic health centers and other interdisciplinary health sciences and educational institutions.
6. Evaluate the value and knowledge components of philosophical and ethical dimensions of issues confronting health care and nursing.

The PhD in nursing program is offered by the UT Health Science Center San Antonio (http://www.uthscsa.edu) School of Nursing (UTHSCSA-SON) (http://nursing.uthscsa.edu). The PhD degree is awarded by the UT Health Science Center San Antonio Graduate School of Biomedical Sciences (http://gsbs.uthscsa.edu).

### Graduate Program Policies

#### General Information

Information about academic progression, policies, or procedures, as well as curriculum information, may be obtained from the Office for Academic Affairs or appropriate Graduate Program Director.

Ph.D. students should refer to the Graduate School of Biomedical Sciences (GSBS) (http://gsbs.uthscsa.edu) Catalog.

#### Current Licensure as a Registered Nurse

Each graduate nursing student is required to maintain current licensure in good standing as a registered nurse in Texas, or a Compact State, throughout the graduate program. Students must provide a copy of the license verification to the Office for Academic Affairs. Failure to maintain a current license in good standing or to produce proof of current licensure in good standing is grounds for dismissal from the program. International students in the PhD program should contact the PhD program director regarding applicable licensure requirements.
Advisement

After acceptance, each student enrolled in the graduate program is assigned an academic advisor. When feasible, assignment is made on the basis of clinical area. The academic advisor serves as a resource person for the student in future program planning and academic counseling. Each student is expected to contact her/his advisor at least once a semester at the time of preregistration for the subsequent semester. A student may request a change in academic advisor through the Office for Academic Affairs. Ordinarily, requests for change in advisor can be accommodated, but, as a courtesy, the student should discuss the change with her/his current advisor. All changes in the student’s program plan must be submitted to the Office for Academic Affairs.

Independent Study

Graduate students may design their own independent study courses for one to four semester hours of credit. Guidelines for design and approval of Independent Studies are available from the Office for Academic Affairs. COGS must approve the Independent Study before the student may register for the course. Courses for summer and fall must be approved in the spring; courses for spring must be approved during the fall semester. Assistance can be provided by the student’s academic advisor.

Dissertation

The Graduate School Instructions for Preparation and Submission of Thesis, Dissertations, and Dissertation Abstracts and forms for advisor approval are available from the GSBS (http://gsbs.uthscsa.edu) website. Doctoral students should obtain a copy of the Guidelines that provide information about the dissertation process.

Teaching Assistants

Opportunities are available for graduate nursing students enrolled part-time to work as teaching assistants in the School of Nursing. Interested applicants should contact the Office of Admissions and Student Services in the School of Nursing for additional information.

Transfer of Credit

Academic work for the Master of Science in Nursing and the Doctor of Nursing Practice are usually completed within The UT Health Science Center San Antonio (http://www.uthscsa.edu). However, students may, with the approval of the appropriate Program Director transfer from another accredited institution a maximum of six semester credit hours (9 quarter hours) of graduate credit applicable to their course of study leading toward the Master of Science in Nursing, Doctor of Nursing Practice or PhD in Nursing degrees. Students in the DNP Public Health Nurse Leader track may transfer any eligible University of Texas School of Public Health (UTSPH) course. Only one eligible UTSPH course with a grade of ‘C’ will be accepted provided that the student has not earned a C in another required course in the DNP program. Transfer of all other eligible UTSPH credits must show a grade of ‘A’ or ‘B’.

Additional graduate courses may be transferred from other accredited institutions upon the approval of the Committee on Graduate Studies (COGS), with the number not to exceed an additional six semester credit hours. Approval of courses beyond the six semester hours or courses to be accepted in lieu of required, clinical major or minor courses must be submitted to COGS. The student may obtain additional information about materials that must be submitted with the petition from the appropriate Graduate Program Director. Approval of any course for transfer, prior to registration for the course, is strongly recommended. PhD students must consult with their advisor prior to registering for cognate courses taken outside the School of Nursing.

Approval of transfer credit requires that the student be enrolled in the graduate program. The student must complete a Request for Transfer of Credit form and submit it to the appropriate Program Director with an official course description from the Catalog and must make certain that an official transcript, sent directly from the college or university attended, is in her/his file or request that a transcript be sent as soon as the course is completed. All courses must have been completed not more than five years before the degree is awarded. Courses in which a grade of C or less has been earned will not be accepted for transfer (see exception for students enrolled in the DNP Public Health Nurse Leader).

Correspondence Courses

Courses completed by correspondence are not accepted for graduate credit.

Honors

A graduate nursing student whose grade point average is 4.0 is awarded her/his degree with High Honors.

Grades and Grade Point Average

The standing of students in their work is expressed by five grades: A (above average graduate work), B (average graduate work), C (below average graduate work), D (failing graduate work), and F (failing graduate work). D and F grades are not acceptable for graduate credit. Students may also register in certain courses on a pass/fail basis, in which case the grade is recorded as either Pass (P) or Fail and no letter grade is assigned.

Other symbols used in reporting the standing of students in their classes are: WP=withdrawal from course passing; WF=withdrawal from course failing; I=incomplete; IP=in progress (thesis/dissertation courses only). AU records an audited course.
Courses in which a student receives a D or F will not be counted toward the total number of courses and/or hours required for a graduate degree in the School of Nursing or the Graduate School of Biomedical Sciences. However, all grades (A to F) are included in the computation of the grade point average. In computing the grade point average, the following scale of points per semester credit hour is used:

A = 4 points (90-100)
B = 3 points (80-89)
C = 2 points (70-79)
D = 1 point (60-69)
F = 0 points (Below 60)

**Progression in the Graduate Program**

To continue in the graduate program, a student must:

- absolve any contingencies related to admission to the program within the time period stated in the letter of admission, or within the first semester if not stated;
- maintain satisfactory progress (B average in first 9 hours) if conditionally admitted;
- receive no more than one C in any required course;
- maintain a minimum cumulative grade point average of B (3.0) for all courses taken while enrolled in the graduate program.

Should a student fail to meet the criteria for continuance in the program, her/his progress will be reviewed by the Committee on Graduate Studies (COGS) which may:

- impose conditions as requirements for continuation in the program, or
- terminate the student's enrollment in the program, with the consent of the Dean of the School of Nursing or the Dean of the Graduate School of Biomedical Sciences (http://gsbs.uthscsa.edu).

**Scholastic Probation**

A student whose cumulative grade point average or nursing grade point average falls below 3.0 will be placed on probation and warned that continuation in the graduate program is in jeopardy.

The probation period shall extend no longer than two consecutive semesters of enrollment. No more than one probationary period shall be permitted. NURE (elective) courses may not be taken during the probationary period, and the student may not drop any course after the first class day.

To be removed from probation, the student must achieve a 3.0 cumulative grade point average by the completion of the probationary period. Failure to accomplish the required average will result in the student’s dismissal from the program.

The progress of students on probation will be reviewed by the Committee on Graduate Studies (COGS) each semester. A student on probation will not be admitted to candidacy nor awarded a degree. Satisfactory progress toward the degree is required throughout the student’s enrollment. The Committee on Graduate Studies (COGS) may terminate a student’s enrollment at any time if the student does not meet the criteria for continuance in the program.

**Probation Policy and Procedure**

1. Definition: Probation is the status of the student whose progression in the program may be delayed, interrupted or conditional due to the criteria listed below.

2. Criteria for Probation in the Nursing Program includes any one of the following:
   A. Earning a grade of “C” in a graduate course required for the program
   B. Earning a grade in a required graduate course that drops the GPA below 3.0
   C. Failure to meet any of the School of Nursing Policies related to academic or professional conduct
   D. Failure to meet the terms of professional integrity standards defined in the current University Catalog (http://studentservices.uthscsa.edu/pdf/Catalog2011-2012.pdf), the Texas State Board of Nursing Nurse Practice Act (http://www.bon.texas.gov/nursinglaw/npa.html), the Texas State Board of Nursing Rules and Regulations (http://www.bon.texas.gov/nursinglaw/rr.html) and the American Nurses Association Code of Ethics (http://www.nursingworld.org/MainMenuCategories/EthicsStandards/CodeofEthicsforNurses).

3. Probation Procedure
   A. Initial Review of Recommendation for Probation
      i The faculty member of record for each course will notify, in writing, a student who meets the criteria set forth in provision 2 and refer the student to the Associate Dean for Academic Affairs within 2 business days of the occurrence of the criteria set forth in provision 2.
Dismissal Policy and Procedure

1. **Definition:** Dismissal is the removal of a student from the School of Nursing Graduate Program. A student who is dismissed from the graduate program may not continue in the graduate nursing program and is not eligible for readmission.

2. **Criteria for Dismissal from the Graduate Nursing Program** includes any one of the following:
   - **A.** Earning a Grade of C or a grade that drops the GPA below 3.0
     - a. A written “Probation Letter of Expectation” that determines the length and conditions of the probation period which may include,
       - Referral of the student to resources and support services for academic success
       - Referral of the student to the faculty to devise a written plan for academic success.
     - b. The Committee on Graduate Studies will act on the recommendation for the “Probation Letter of Expectation”.
   - **B.** Failure to meet School of Nursing Policies or failure to meet the terms of professional integrity standards defined in the current University Catalog, the Texas State Board of Nursing Nurse Practice Act (http://www.bon.texas.gov/nursinglaw/npa.html), the Texas State Board of Nursing Rules and Regulations (http://www.bon.texas.gov/nursinglaw/rr.html) and the American Nurses Association Code of Ethics (http://www.nursingworld.org/MainMenuCategories/EthicsStandards/CodeofEthicsforNurses).
     - a. The Associate Dean for Academic Affairs will present a recommendation for the “Probation Letter of Expectation” that determines the length and conditions of the probation to the Committee on Graduate Studies.
     - b. The Committee on Graduate Studies will act on the recommendation for the “Probation Letter of Expectation”.
   - **C.** Failure to meet School of Nursing “Probation Letter of Expectation”
     - i. The final decision for probation and the terms of the probation will be made by the Committee on Graduate Studies and will be delivered to the student in writing by certified letter to the student’s address of record and copied to the Dean of the School of Nursing.
     - ii. Dismissal from the School of Nursing
   - **D.** Failure to meet the terms of professional integrity and ethical standards defined in the current University Catalog (http://studentservices.uthscsa.edu/pdf/Catalog2011-2012.pdf), the Texas State Board of Nursing Nurse Practice Act (http://www.bon.texas.gov/nursinglaw/npa.html), the Texas State Board of Nursing Rules and Regulations (http://www.bon.texas.gov/nursinglaw/rr.html) and the American Nurses Association Code of Ethics (http://www.nursingworld.org/MainMenuCategories/EthicsStandards/CodeofEthicsforNurses).
   - **E.** Failure to notify the school of non-matriculation for three consecutive semesters (excluding summers). Students must re-apply for admission.

3. **Dismissal Procedure for Academic Reasons or Failure to Meet the Terms of Professional Integrity and Ethical Standards.**
   - **A.** The faculty member of record for each course will notify, in writing, a student who meets the criteria set forth in provision 2 and refer the student to the Associate Dean for Academic Affairs within 2 business days of the occurrence of the criteria set forth in provision 2.
   - **B.** The Associate Dean for Academic Affairs will notify the student, in writing, that his/her case will be presented to the Committee on Graduate Studies. The written communication will include the date and time of the presentation to the Committee on Graduate Studies.
     - The student may present his/her case to the Associate Dean for Academic Affairs, if requested in writing, within 3 business days of notification of the probation recommendation. If the student wishes to bring a person outside of the School of Nursing to the meeting, he/she must indicate this in the request to the Associate Dean for Academic Affairs. If the person attending the meeting with the student is an attorney, the meeting will be held with the University attorney present. The student may be accompanied by her/his academic advisor during the Associate Dean for Academic Affairs review process.
   - **C.** If the review results in validation of the criteria set forth in provision 2, the Committee on Graduate Studies may recommend one or more of the following actions:
     - i. **Probation**
     - ii. **Dismissal from the School of Nursing**
A written recommendation from the Chairperson of the Committee on Graduate Studies will be made to the Dean of the School of Nursing. 

The final decision will be made by the Dean and will be delivered to the student in writing by certified letter to the student’s address of record. 

When indicated, the incident will be reported to the local law enforcement agency and/or other appropriate agencies, institutions, and/or regulatory bodies.

**Petition**

Students may petition the Committee on Graduate Studies (COGS) for the consideration of relevant issues influencing program progression and/or completion. Students who wish to petition COGS should consult with their advisors, and then complete the Student Petition Form that is available from the Office for Academic Affairs. Decisions regarding the petition will be communicated in writing to the students.

Petitions for reconsideration of the decision of COGS are reviewed by the Dean of the School of Nursing. The Dean’s decisions are final.

**Repetition of a Course**

Credit for courses in which a D or F is received may not be repeated and is grounds for dismissal as indicated in the dismissal policy.

**The Semester Credit Hour**

The unit of measure for credit purposes is the semester credit hour. One semester credit hour is given for each one clock hour of class, one clock hour of seminar, or three clock hours of laboratory/practicum/computer lab experience per week, per semester, with the exception of selected and summer sessions during which the class, seminar, and practicum hours may be concentrated but provide equivalent clock hours.

**Thesis and Dissertation Course Report**

Thesis and dissertation courses may be reported as In Progress (IP) until the work is completed. Thesis and dissertation courses are not counted in the grade point average.

**Examinations**

Examinations must be taken on the date and time scheduled. If extenuating circumstances prevent the student from taking an examination, prior approval must be granted by the course instructor to postpone the examination. If a student misses an examination without prior approval by the instructor, a grade of F will be recorded for the examination.

**Readmission**

Individuals who have previously been enrolled in graduate nursing courses should complete an Application for Readmission. Transcripts from any colleges or universities attended since the time of the previous enrollment in the graduate programs must be submitted. Applicants may be requested to provide recent professional references. Proof of current licensure as a registered nurse in Texas is also required.

Individuals who have not registered in three consecutive terms, excluding summers, must apply for readmission unless they were previously granted official permission for leave of absence.

Those seeking readmission are subject to all requirements, procedures, and acceptance considerations outlined in this Catalog.

**Doctor of Nursing Practice (DNP)**

The Doctor of Nursing Practice (DNP) Program (http://nursing.uthscsa.edu/programs/grad/dnp.aspx) is designed as the highest possible degree for nurses committed to clinical work. The DNP is an outgrowth of increasingly complex healthcare system that requires advanced practice nurses to understand leadership, policy, economics, quality and safety issues, apply and translate research into practice, and to be leaders of multidisciplinary practice initiatives. The program is for students who already hold a master’s degree in nursing. Three leadership tracks are available: Nurse Practitioner Leadership, Executive Administrative Management, Public Health Nurse Leader. The Post-MSN pathway ranges between 41-51 semester credit hours depending on the track chosen. Part-time and full-time study options are available.

The DDNP requires that all students must have 1,000 clinical/practicum hours post bachelors to DNP. Clinical/practicum hour requirements for nurses in the HSC Post-Master’s DNP program are: Nurse Practitioner Leadership: 360 hours, Executive Administrative Management: 540 hours and Public Health Nurse Leader: 360 hours. More hours may be required to complete the total 1,000 hour requirement depending on review of hours completed at the Masters level.

**DNP Admissions Requirements**

**Degree:** DNP

Specialization, Program of Study: Nursing Practice Doctorate including tracks in Nurse Practitioner Leadership, Executive Administrative Management, and Public Health
Program Length: 2 – 3 Years

General Admissions Requirements:
To be considered for admission to the Doctor of Nursing Practice (DNP) Program the following factors are required:

• Online application submitted via NursingCAS (http://nursingcas.org). View a video overview (http://www.screencast.com/t/TYbelPyAD) on completing NursingCAS application.
• NursingCAS application fee
• Master’s in Nursing from a nationally accredited school of nursing (NLNAC, CCNE)
• It is recommended that students applying to the Executive Administrative Management track have a master’s degree in administrative management or a master’s degree in nursing with equivalent experience in a healthcare leadership position and seek preparation as an executive level nurse leader.
• Applicants to the Post-Masters Nurse Practitioner Leadership track must hold national certification as an Advanced Practice Registered Nurse or eligibility to sit for certification.
• Submit official transcript(s) from each post-secondary institution attended, even if no degree awarded, to NursingCAS. International transcripts must be evaluated by an accredited foreign credential service. *For more information regarding international applicant requirements, click here (http://nursing.uthscsa.edu/students/intApplicants.asp).
• Grade Point Average of “B” (3.0 on a 4.0 scale) or higher is required
• Basic statistics course
• Official copy of Test of English as a Foreign Language (TOEFL) or International English Language Testing System (IELTS) score, if international applicant. TOEFL and IELTS scores can be no more than two (2) years old. A minimum TOEFL score of 550 is required on the paper examination; minimum 250 on the computer-based examination; or, minimum 68 on the internet based examination. A minimum IELTS score of 6.5 for graduate admission is required. TOEFL school code: 3383
• Licensure as a Registered Nurse in Texas or Compact State
• Current CPR Certification
• Current Required Immunizations (http://nursing.uthscsa.edu/shc/hc_immunization.asp)
• Proof of Current Health Insurance Coverage (http://studentservices.uthscsa.edu/pdf/InsuranceVerif&DisclaimForm.pdf)
• Clear Criminal Background Check
• Basic Computer Skills
• Three Professional References (Submit via NursingCAS Application)
• Professional Goal Statement/Essay (Submit via Supplemental Application, not via NursingCAS application)
• Current resume or curriculum vita
• May be invited for an interview

Application Deadline: Deadline for fall entrance is February 1 (DNP applications are accepted only once each year)

Start Term: Fall

Contact:
Office of Admissions & Student Services
School of Nursing
UT Health Science Center at San Antonio
7703 Floyd Curl Drive, MSC 7945
San Antonio, Texas 78229-3900
Phone: 210-567-5805
Toll Free: 877-235-0341
FAX 210-567-6189
http://nursing.uthscsa.edu/

DNP Degree Requirements and Graduation

Clinical/Practicum Hours
The Doctor of Nursing Practice requires that all students must have 1,000 clinical/practicum hours post bachelors to DNP. Clinical/practicum hour requirements for nurses in the Post-Master’s DNP program for the Nurse Practitioner Leadership track and Public Health tracks are 360 hours and the
Executive Administrative Management track are 540 hours. More hours may be required to complete the total 1,000 hour requirement depending on review of hours completed at the Masters level.

DNP Project

A hallmark of the practice doctorate is the DNP project demonstrating the student’s in-depth knowledge of one’s area of specialty practice and the synthesis of the student’s coursework and practice application. The inquiry project is guided and evaluated by a faculty advisor and inquiry project committee. The inquiry project results in a scholarly paper and presentation.

The focus of all DNP Scholarly Inquiry projects is on knowledge translation at multiple system levels. During the first semester, students work with faculty to begin exploring concepts related to their area of interest while evaluating sources of evidence related to the problem/need. The inquiry will be further defined throughout the program and the proposal written during the DNP Advanced Nursing Seminar course. Based upon an assessment and evaluation of the evidence, the plan and design will be developed for a DNP project initiative.

DNP Curriculum and Plans of Study

Curriculum

Currently, the DNP program has three post master’s tracks in Nurse Practitioner Leadership, Executive Administrative Management and Public Health Nurse Leader. The DNP program is designed to prepare nursing leaders for the highest level of professional nursing practice beyond the initial preparation in the discipline. The curriculum is based on the Essentials of Doctoral Education for Advanced Nursing Practice developed by the American Association Colleges of Nursing (AACN, 2006).

Nurse Practitioner Leadership

The Nurse Practitioner Leadership\textsuperscript{1} track is for nurses who are nationally certified nurse practitioners and hold Advanced Practice Nurse (APN) licensure with the Board of Nursing (41 credit hours). The DNP can be earned in 5 semesters as a full time student and in 7 semesters as a part time student.

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<th>Leadership Courses</th>
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NURS 7321  Statistical Analysis for Quality Improvement and Health Delivery Systems  3

NURS 7301  Methods For Evidence-Based Practice (EBD) Translational Science 1  3

NURS 7323  Design And Analysis For Evidence-Based Practice (EBP) Translational Science 2  3

DNP Major Courses
NURS 7111  Advanced Nursing Seminar  1

NURS 7511  Advanced Nursing: Clinical Application  225  5

NURS 7312  DNP Practice Inquiry Seminar  3

NURS 7313  DNP Practice Inquiry: Clinical Application  135  3

| Total Credit Hours: | 0.0 | 360.0 | 0.0 | 0.0 | 41.0 |

Executive Administrative Management

The Executive Administrative Management track is for students with a master’s degree in nursing in administrative management or an equivalent degree in nursing who seek preparation as an executive level nurse leader (48 credit hours). The DNP can be earned in 6 semesters as a full time student and 8 semesters as a part time student.

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**Public Health Nurse Leader**

The Public Health Nurse Leader track is for students with a master’s degree in nursing who desire leadership preparation in population-based public health nursing. Nurses in this track receive a Public Health Certificate from the University of Texas Houston School of Public Health concurrent with the SON DNP degree (54 Credits). The DNP can be earned in 7 semesters as a full time student and 9 semesters as a part time student.
<table>
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<tr>
<th>Course Code</th>
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<td>NURS 6353</td>
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<td>Nursing Practice: Theories And Research In Leadership, Quality, Safety, And Evidence Base</td>
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**PH 1690**
Public Health Courses
PHM 3715
PHM 1110
PHWM 2120

**DNP Major Courses**
NURS 7111 Advanced Nursing Seminar 1
NURS 7511 Advanced Nursing: Clinical Application 225 5
NURS 7312 DNP Practice Inquiry Seminar 3
NURS 7313  DNP Practice Inquiry: Clinical Application  135  3

| Total Credit Hours: | 0.0 | 360.0 | 0.0 | 0.0 | 38.0 |

Please view individual course descriptions for information on required prerequisites or co-requisites. Also, the Doctor of Nursing Practice requires that all students must have 1,000 clinical/practicum hours post bachelors to DNP. Clinical/practicum hour requirements for nurses in the UTHSCSA Post-Master’s DNP program are: 360 hours for the Nurse Practitioner Leadership and Public Health Nurse Leader tracks, and 540 hours for the Executive Administrative Management track. More hours may be required to complete the total 1,000 hour requirement depending on review of hours completed at the Masters level.

Courses in these tracks are not listed in sequence.

**DNP Program Outcomes**

Upon completion of the Doctor of Nursing Practice Program students will:

1. Integrate nursing science, ethics, biophysical, psychosocial, analytical, and organizational sources to provide the highest level of specialty nursing practices.
2. Develop, implement, and evaluate healthcare practices in healthcare systems that ensure quality improvement and patient safety.
3. Use analytic methods and evidence based practices to improve practice outcomes and the practice environment.
4. Implement and evaluate ethical healthcare information systems and patient care technology to improve the quality of patient health outcomes and care systems.
5. Advocate for healthcare practices that advance social justice, equity, and ethical policies within all healthcare arenas.
6. Employ interprofessional collaborative teams to improve patient and population health outcomes and healthcare delivery systems.
7. Lead the integration and institutionalization of (evidence based) clinical prevention and population based health guidelines.
8. Use clinical judgment, systems thinking, accountability, and specialized knowledge to design, deliver, and evaluate evidence based, culturally proficient care to improve patient, population, and health systems outcomes.

**Graduate Program Policies**

**General Information**

Information about academic progression, policies, or procedures, as well as curriculum information, may be obtained from the Office for Academic Affairs or appropriate Graduate Program Director.

Ph.D. students should refer to the Graduate School of Biomedical Sciences (GSBS) (http://gsbs.uthscsa.edu) Catalog.

**Current Licensure as a Registered Nurse**

Each graduate nursing student is required to maintain current licensure in good standing as a registered nurse in Texas, or a Compact State, throughout the graduate program. Students must provide a copy of the license verification to the Office for Academic Affairs. Failure to maintain a current license in good standing or to produce proof of current licensure in good standing is grounds for dismissal from the program. International students in the PhD program should contact the PhD program director regarding applicable licensure requirements.

**Advisement**

After acceptance, each student enrolled in the graduate program is assigned an academic advisor. When feasible, assignment is made on the basis of clinical area. The academic advisor serves as a resource person for the student in future program planning and academic counseling. Each student is expected to contact her/his advisor at least once a semester at the time of preregistration for the subsequent semester. A student may request a change in academic advisor through the Office for Academic Affairs. Ordinarily, requests for change in advisor can be accommodated, but, as a courtesy, the student should discuss the change with her/his current advisor. All changes in the student’s program plan must be submitted to the Office for Academic Affairs.

**Independent Study**

Graduate students may design their own independent study courses for one to four semester hours of credit. Guidelines for design and approval of Independent Studies are available from the Office for Academic Affairs. COGS must approve the Independent Study before the student may register for the course. Courses for summer and fall must be approved in the spring; courses for spring must be approved during the fall semester. Assistance can be provided by the student’s academic advisor.
Dissertation

The Graduate School Instructions for Preparation and Submission of Thesis, Dissertations, and Dissertation Abstracts and forms for advisor approval are available from the GSBS (http://gsbs.uthscsa.edu) website. Doctoral students should obtain a copy of the Guidelines that provide information about the dissertation process.

Teaching Assistants

 opportunities are available for graduate nursing students enrolled part-time to work as teaching assistants in the School of Nursing. Interested applicants should contact the Office of Admissions and Student Services in the School of Nursing for additional information.

Transfer of Credit

Academic work for the Master of Science in Nursing and the Doctor of Nursing Practice are usually completed within The UT Health Science Center San Antonio (http://www.uthscsa.edu). However, students may, with the approval of the appropriate Program Director transfer from another accredited institution a maximum of six semester credit hours (9 quarter hours) of graduate credit applicable to their course of study leading toward the Master of Science in Nursing, Doctor of Nursing Practice or PhD in Nursing degrees. Students in the DNP Public Health Nurse Leader track may transfer any eligible University of Texas School of Public Health (UTSPH) course. Only one eligible UTSPH course with a grade of ‘C’ will be accepted provided that the student has not earned a C in another required course in the DNP program. Transfer of all other eligible UTSPH credits must show a grade of ‘A’ or ‘B’.

Additional graduate courses may be transferred from other accredited institutions upon the approval of the Committee on Graduate Studies (COGS), with the number not to exceed an additional six semester credit hours. Approval of courses beyond the six semester hours or courses to be accepted in lieu of required, clinical major or minor courses must be submitted to COGS. The student may obtain additional information about materials that must be submitted with the petition from the appropriate Graduate Program Director. Approval of any course for transfer, prior to registration for the course, is strongly recommended. PhD students must consult with their advisor prior to registering for cognate courses taken outside the School of Nursing.

Approval of transfer credit requires that the student be enrolled in the graduate program. The student must complete a Request for Transfer of Credit form and submit it to the appropriate Program Director with an official course description from the Catalog and must make certain that an official transcript, sent directly from the college or university attended, is in her/his file or request that a transcript be sent as soon as the course is completed. All courses must have been completed not more than five years before the degree is awarded. Courses in which a grade of C or less has been earned will not be accepted for transfer (see exception for students enrolled in the DNP Public Health Nurse Leader).

Correspondence Courses

Courses completed by correspondence are not accepted for graduate credit.

Honors

A graduate nursing student whose grade point average is 4.0 is awarded her/his degree with High Honors.

Grades and Grade Point Average

The standing of students in their work is expressed by five grades: A (above average graduate work), B (average graduate work), C (below average graduate work), D (failing graduate work), and F (failing graduate work). D and F grades are not acceptable for graduate credit. Students may also register in certain courses on a pass/fail basis, in which case the grade is recorded as either Pass (P) or Fail and no letter grade is assigned.

Other symbols used in reporting the standing of students in their classes are: WP=withdrawal from course passing; WF=withdrawal from course failing; I=incomplete; IP=in progress (thesis/dissertation courses only). AU records an audited course.

Courses in which a student receives a D or F will not be counted toward the total number of courses and/or hours required for a graduate degree in the School of Nursing or the Graduate School of Biomedical Sciences. However, all grades (A to F) are included in the computation of the grade point average. In computing the grade point average, the following scale of points per semester credit hour is used:

A = 4 points (90-100)
B = 3 points (80-89)
C = 2 points (70-79)
D = 1 point (60-69)
F = 0 points (Below 60)

Progression in the Graduate Program

To continue in the graduate program, a student must:
• absolve any contingencies related to admission to the program within the time period stated in the letter of admission, or within the first semester if not stated;
• maintain satisfactory progress (B average in first 9 hours) if conditionally admitted;
• receive no more than one C in any required course;
• maintain a minimum cumulative grade point average of B (3.0) for all courses taken while enrolled in the graduate program.

Should a student fail to meet the criteria for continuance in the program, her/his progress will be reviewed by the Committee on Graduate Studies (COGS) which may:

• impose conditions as requirements for continuation in the program, or
• terminate the student’s enrollment in the program, with the consent of the Dean of the School of Nursing or the Dean of the Graduate School of Biomedical Sciences (http://gsbs.uthscsa.edu).

**Scholastic Probation**

A student whose cumulative grade point average or nursing grade point average falls below 3.0 will be placed on probation and warned that continuation in the graduate program is in jeopardy.

The probation period shall extend no longer than two consecutive semesters of enrollment. No more than one probationary period shall be permitted. NURE (elective) courses may not be taken during the probationary period, and the student may not drop any course after the first class day.

To be removed from probation, the student must achieve a 3.0 cumulative grade point average by the completion of the probationary period. Failure to accomplish the required average will result in the student’s dismissal from the program.

The progress of students on probation will be reviewed by the Committee on Graduate Studies (COGS) each semester. A student on probation will not be admitted to candidacy nor awarded a degree. Satisfactory progress toward the degree is required throughout the student’s enrollment. The Committee on Graduate Studies (COGS) may terminate a student’s enrollment at any time if the student does not meet the criteria for continuance in the program.

**Probation Policy and Procedure**

1. Definition: Probation is the status of the student whose progression in the program may be delayed, interrupted or conditional due to the criteria listed below.

2. Criteria for Probation in the Nursing Program includes any one of the following:
   A. Earning a grade of “C” in a graduate course required for the program
   B. Earning a grade in a required graduate course that drops the GPA below 3.0
   C. Failure to meet any of the School of Nursing Policies related to academic or professional conduct
   D. Failure to meet the terms of professional integrity standards defined in the current University Catalog (http://studentservices.uthscsa.edu/pdf/Catalog2011-2012.pdf), the Texas State Board of Nursing Nurse Practice Act (http://www.bon.texas.gov/nursinglaw/npa.html), the Texas State Board of Nursing Rules and Regulations (http://www.bon.texas.gov/nursinglaw/rr.html) and the American Nurses Association Code of Ethics (http://www.nursingworld.org/MainMenuCategories/EthicsStandards/CodeofEthicsforNurses).

3. Probation Procedure
   A. Initial Review of Recommendation for Probation
      i The faculty member of record for each course will notify, in writing, a student who meets the criteria set forth in provision 2 and refer the student to the Associate Dean for Academic Affairs within 2 business days of the occurrence of the criteria set forth in provision 2.
      ii The student may present his/her case to the Associate Dean for Academic Affairs, if requested in writing, within 3 business days of notification of the probation recommendation. If the student wishes to bring a person outside of the School of Nursing to the meeting, he/she must indicate this in the request to the Associate Dean for Academic Affairs. If the person attending the meeting with the student is an attorney, the meeting will be held with the University attorney present. The student may be accompanied by her/his academic advisor during the Associate Dean for Academic Affairs review process.

   B. If the review results in validation of the criteria set forth in provision 2, the Associate Dean for Academic Affairs will recommend in writing one or more of the following actions to the Dean of the School of Nursing:
      i Earning a Grade of C or a grade that drops the GPA below 3.0
         a. A written “Probation Letter of Expectation” that determines the length and conditions of the probation period which may include, but are not limited, any one of the following:
            • Referral of the student to resources and support services for academic success
            • Referral of the student to the faculty to devise a written plan for academic success.
            • Referral of the student to the Associate Dean for Admissions and Student Services for non-academic support
ii Failure to meet School of Nursing Policies or failure to meet the terms of professional integrity standards defined in the current University Catalog (http://studentservices.uthscsa.edu/pdf/Catalog2011-2012.pdf), the Texas State Board of Nursing Nurse Practice Act (http://www.bon.texas.gov/nursinglaw/npa.html), the Texas State Board of Nursing Rules and Regulations (http://www.bon.texas.gov/nursinglaw/rr.html) and the American Nurses Association Code of Ethics (http://www.nursingworld.org/MainMenuCategories/EthicsStandards/CodeofEthicsforNurses).

a. The Associate Dean for Academic Affairs will present a recommendation for the “Probation Letter of Expectation” that determines the length and conditions of the probation to the Committee on Graduate Studies.

b. The Committee on Graduate Studies will act on the recommendation for the “Probation Letter of Expectation”.

iii The final decision for probation and the terms of the probation will be made by the Committee on Graduate Studies and will be delivered to the student in writing by certified letter to the student’s address of record and copied to the Dean of the School of Nursing.

iv When indicated, the incident will be reported to the local law enforcement agency and/or other appropriate agencies, institutions, and/or regulatory bodies by the Associate Dean for Academic Affairs.

v If the review of the recommendation for probation results in a recommendation for dismissal, the policy and procedure for dismissal will supersede the policy and procedure for probation.

Dismissal Policy and Procedure

1. Definition: Dismissal is the removal of a student from the School of Nursing Graduate Program. A student who is dismissed from the graduate program may not continue in the graduate nursing program and is not eligible for readmission.

2. Criteria for Dismissal from the Graduate Nursing Program includes any one of the following:
   A. Earning a grade of “D”, “F” or “Fail” in any required graduate course
   B. Earning a grade of “C” in 6 or more credit hours of required graduate coursework regardless of GPA or in two required graduate courses regardless of the number of credit hours and GPA
   C. Failure to meet the conditions of the School of Nursing “Probation Letter of Expectation”
   D. Failure to meet the terms of professional integrity and ethical standards defined in the current University Catalog (http://studentservices.uthscsa.edu/pdf/Catalog2011-2012.pdf), the Texas State Board of Nursing Nurse Practice Act (http://www.bon.texas.gov/nursinglaw/npa.html), the Texas State Board of Nursing Rules and Regulations (http://www.bon.texas.gov/nursinglaw/rr.html) and the American Nurses Association Code of Ethics (http://www.nursingworld.org/MainMenuCategories/EthicsStandards/CodeofEthicsforNurses).
   E. Failure to notify the school of non-matriculation for three consecutive semesters (excluding summers). Students must re-apply for admission.

3. Dismissal Procedure for Academic Reasons or Failure to Meet the Terms of Professional Integrity and Ethical Standards.
   A. The faculty member of record for each course will notify, in writing, a student who meets the criteria set forth in provision 2 and refer the student to the Associate Dean for Academic Affairs within 2 business days of the occurrence of the criteria set forth in provision 2.
   B. The Associate Dean for Academic Affairs will notify the student, in writing, that his/her case will be presented to the Committee on Graduate Studies. The written communication will include the date and time of the presentation to the Committee on Graduate Studies.
   C. If the student requests a meeting with the Committee on Graduate Studies, the written communication will include the date and time of the meeting. The student may be accompanied by her/his academic advisor during the Committee on Graduate Studies review process.
   D. The Committee on Graduate Studies will act on the recommendation of the Associate Dean for Academic Affairs within 2 business days of notification. The Committee may recommend one or more of the following actions:
      i Probation
      ii Dismissal from the School of Nursing
   E. The final decision will be made by the Dean and will be delivered to the student in writing by certified letter to the student’s address of record.
   F. When indicated, the incident will be reported to the local law enforcement agency and/or other appropriate agencies, institutions, and/or regulatory bodies

Petition

Students may petition the Committee on Graduate Studies (COGS) for the consideration of relevant issues influencing program progression and/or completion. Students who wish to petition COGS should consult with their advisors, and then complete the Student Petition Form that is available from the Office for Academic Affairs. Decisions regarding the petition will be communicated in writing to the students.

Petitions for reconsideration of the decision of COGS are reviewed by the Dean of the School of Nursing. The Dean’s decisions are final.
Repetition of a Course
Credit for courses in which a D or F is received may not be repeated and is grounds for dismissal as indicated in the dismissal policy.

The Semester Credit Hour
1The unit of measure for credit purposes is the semester credit hour. One semester credit hour is given for each one clock hour of class, one clock hour of seminar, or three clock hours of laboratory/practicum/computer lab experience per week, per semester, with the exception of selected and summer sessions during which the class, seminar, and practicum hours may be concentrated but provide equivalent clock hours.

Thesis and Dissertation Course Report
Thesis and dissertation courses may be reported as In Progress (IP) until the work is completed. Thesis and dissertation courses are not counted in the grade point average.

Examinations
Examinations must be taken on the date and time scheduled. If extenuating circumstances prevent the student from taking an examination, prior approval must be granted by the course instructor to postpone the examination. If a student misses an examination without prior approval by the instructor, a grade of F will be recorded for the examination.

Readmission
Individuals who have previously been enrolled in graduate nursing courses should complete an Application for Readmission. Transcripts from any colleges or universities attended since the time of the previous enrollment in the graduate programs must be submitted. Applicants may be requested to provide recent professional references. Proof of current licensure as a registered nurse in Texas is also required.

Individuals who have not registered in three consecutive terms, excluding summers, must apply for readmission unless they were previously granted official permission for leave of absence.

Those seeking readmission are subject to all requirements, procedures, and acceptance considerations outlined in this Catalog.
Course Descriptions

- Anesthesiology (ANES) (p. 286)
- Biochemistry (BIOC) (p. 287)
- Cardiothoracic Surgery (CTSR) (p. 290)
- Cellular & Structural Biology (CSBL) (p. 291)
- CIRCLE (CIRC) (p. 289)
- Clinical Laboratory Science (CLSC) (p. 295)
- Community Dentistry (COMD) (p. 301)
- Deaf Educ & Hearing Science (DEHS) (p. 301)
- Dental Diagnostic Science (DIAG) (p. 302)
- Dental Hygiene (DENH) (p. 307)
- Emergency Health Sciences (EMSP) (p. 311)
- Emergency Medical Technology (EMST) (p. 314)
- Emergency Medicine (EMED) (p. 315)
- Endodontics (ENDO) (p. 315)
- Enrichment Elective (ELEC) (p. 319)
- Family Practice (FAPR) (p. 322)
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- General Dentistry (GEND) (p. 325)
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- Medicine (MEDI) (p. 334)
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- Neurology (NEUR) (p. 351)
- Neurosurgery (NRSR) (p. 352)
- Nursing Elective (NURE) (p. 363)
- Nursing (NURS) (p. 352)
- Obstetrics & Gynecology (OBGY) (p. 366)
- Occupational Therapy (OCCT) (p. 368)
- Ophthalmology (OPHT) (p. 370)
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- Orthopedics (ORTO) (p. 372)
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- Pediatric Dentistry (PEDO) (p. 377)
- Pediatrics (PEDI) (p. 378)
- Periodontics (PERI) (p. 386)
- Pharmacology (PHAR) (p. 388)
- Physical Therapy (PHYT) (p. 390)
- Physician Assistant (PHAS) (p. 394)
- Physiology (PHYL) (p. 397)
- Prosthodontics (PROS) (p. 398)
- Psychiatry (PSYC) (p. 403)
- Radiation Oncology (RADO) (p. 404)
- Radiology (RAD) (p. 404)
- Rehabilitation Medicine (REHB) (p. 408)
- Respiratory Care (RESC) (p. 409)
- Restorative Dentistry (RESD) (p. 411)
- Selective (SELC) (p. 412)
- Surgery (SURG) (p. 417)
- Urology (UROL) (p. 422)

Anesthesiology (ANES)

Courses

ANES 3001. Clinical Anesthesiology. Credit Hours.
Students are required to participate in Anesthesiology at one of the general hospitals affiliated with the Health Science Center with supervised, graded responsibility for anesthetic management during all phases of the peri-operative period. Objectives are to develop skills for physical assessment, choice of anesthetic management, administration of anesthesia, airway maintenance, and basic life support of the anesthetized patient.

ANES 4000. Special Topic. 4 Credit Hours.
This is a self-designed course created by both the student and the department to cover a specific topic. A Course Approval Form must be completed along with documentation of the designed course description.

ANES 4001. Clinical Anesthesiology. 4 Credit Hours.
Students are required to participate in Anesthesiology at one of the general hospitals affiliated with the Health Science Center with supervised, graded responsibility for anesthetic management during all phases of the peri-operative period. Objectives are to develop skills for physical assessment, choice of anesthetic management, administration of anesthesia, airway maintenance, and basic life support of the anesthetized patient.

ANES 4002. Critical Care. 4 Credit Hours.
Students are required to participate in the adult surgical intensive care unit at Audie Murphy VA Hospital. Emphasis will be placed on the diagnosis and treatment of all aspects of acute respiratory failure, especially that occurring in the postoperative state, including post-cardiac surgery. The principles of pulmonary, renal, cardiac, and nutritional support will be discussed. The ethics of life support are also discussed.

ANES 4003. Anesthesiology Research. 4 Credit Hours.
Research experiences are in either the clinical or basic sciences. Clinical research includes developing an understanding of clinical study design, procedures involved in the clinical study and data analysis. Studies are carried out largely in the operating room environment. Basic research can include studies of vascular control, studies on anesthetic agent interactions with the central nervous and cardiovascular systems, CNS ischemic or traumatic injury, and electrophysiologic monitoring and drug kinetics across the human maternal/fetal placental barrier.

ANES 4004. Obstetrical/Analgesia Mgmt. 4 Credit Hours.
Participation in Obstetric Anesthesiology at University Hospital, teaching will emphasize practical care with the student taking an active part in the monitoring of and assisting in the anesthetic care of healthy or complicated women in labor, as well as those undergoing cesarean section. Students will have the opportunity to perform intubations, epidurals, and spinals. Management of GYN outpatient anesthesia will also be included. Emergency resuscitation for hypotension, convulsions, aspiration, and respiratory cardiac arrest may be reviewed as well as prophylactic measures for the prevention of these conditions.
ANES 4005. Pain Management. 4 Credit Hours.
Students participate in the University Center for Pain Medicine at University Hospital. Students participate in the management of chronic pain patients using a multi-disciplinary approach. Students will be exposed to areas of pain management that include operative vs. non-operative options for chronic pain patients and physical therapy and mobilization techniques. Student’s responsibilities include evaluating new patient with a focused and detailed physical exam, seeing follow up patients for medication management, and managing patient pre, during, and post procedures. The student is required to become proficient in accurately evaluating back pain, neuropathies, radiculopathies, and pain diseases including regional complex pain syndromes. This rotation is designed for any student; especially those interested in primary care, anesthesiology, orthopedics, neurology, neurosurgery, or has in interest in learning how to deal with patients with chronic pain.

ANES 4008. Cardiothoracic Anesthesia. 4 Credit Hours.
Students will be involved in care of the cardiothoracic patients at University Hospital. Emphasis will be on anesthesia for patients with cardiovascular and thoracic disease, cardiopulmonary physiology and pharmacology, and invasive hemodynamic monitoring. Students will work directly with one of the cardiothoracic faculty in the Anesthesiology Department.

ANES 6081. Anesthesia Rotation. 1.5 Credit Hour.
Students rotate through the operating room and peri-operative patient areas of the hospital to evaluate patients undergoing general anesthesia and deep conscious sedation. Primary purposes of this clinical rotation are to allow the student to become comfortable with airway management and patient monitoring.

ANES 7000. Off Campus. 4 Credit Hours.
All off campus rotations must be approved by the designated faculty member prior to the beginning of the rotation (at least one week before the course begins). Credit will not be given for any rotation that has not been approved in advance. Required paperwork includes: “Course Approval” form, a written letter or email for acceptance form the physician preceptor with the start and end dates of the course/rotation, and a course description of your learning objectives and responsibilities during the rotation. Forms must include a complete address and telephone number for the off campus location or residence address for the student while at the off campus site. Forms will not be approved after the rotation has already begun. Contact the department for assistance with enrolling in this course.

Biochemistry (BIOC)

Courses

The course consists of writing a progress report describing research results during the last year. The course is required of all graduate students beginning the first semester after selection of a supervising professor.

BIOC 4000. Special Topic. 4 Credit Hours.
This is a self-designed course created by both the student and the department to cover a specific topic. A Course Approval Form must be completed along with documentation of the designed course description.

BIOC 4001. Biochemistry Research. 4 Credit Hours.
This course is an opportunity to work in close collaboration with a member of the department on a problem in research of mutual interest. A sincere interest to acquire research experience or techniques, but no formal research training, is required.

BIOC 5013. Biochemistry. 5.5 Credit Hours.
Primarily lectures and conferences, this course is designed as a survey course for dental students. On a limited basis, a small number of graduate students may be accommodated. Content deals with the chemistry and metabolism of carbohydrates, amino acids, lipids, proteins, and nucleic acids. Special topics relating to the biochemistry of the oral cavity will be presented. The relationship between biochemistry and clinical aspects of dentistry is presented by clinical correlation speakers.

BIOC 5083. Hydrodynamic Methods. 2 Credit Hours.
This course is intended to provide students with the opportunity to gain a solid understanding of hydrodynamics and macromolecular transport processes, such as sedimentation and diffusion. The focus will be on hydrodynamic methods involving analytical ultracentrifugation and light scattering. Topics in sedimentation velocity, sedimentation equilibrium, buoyant density sedimentation, as well as static and dynamic light scattering and the complementarity of these approaches will be discussed. Macromolecular interactions involving mass action, concentration dependent nonideality, and reaction rates are covered. This course will also cover a range of data analysis approaches including the van Holde-Weischat method, the second moment method, direct boundary fitting by finite element modeling, the C(s) method, the 2-dimensional spectrum analysis, genetic algorithm optimization, nonlinear least squares fitting approaches to user-defined models. Statistical analysis using Monte Carlo and bootstrap methods also will be covered.

BIOC 5085. Biophysical Methods In Biology. 4 Credit Hours.
This course is required for all students enrolled in the Molecular Biophysics and Biochemistry track. The course covers modern biophysical methods for studying biological macromolecules in sufficient detail to understand the current literature. Topics to be covered include macromolecular structure determination by X-ray crystallography and NMR spectroscopy; absorbance, fluorescence, and EPR spectroscopy; circular dichroism; light scattering; mass spectrometry; and hydrodynamics, including diffusion, electrophoresis, sedimentation velocity, and sedimentation equilibrium.

BIOC 5087. Molecular Genetics And Biotechnology. 1 Credit Hour.
This course is required for all students enrolled in either Molecular Biophysics & Biochemistry Track. The objective of this course is to provide comprehensive treatment of approaches to experimental biochemistry and biophysics rooted in genetics, recombinant DNA technology, and genomics.

BIOC 5091. Special Topics In Biochemistry: Hydrodynamic Methods. 1 Credit Hour.
This course is intended to provide students with the opportunity to gain a solid understanding of hydrodynamics and macromolecular transport processes, such as sedimentation and diffusion. The focus will be on hydrodynamic methods involving analytical ultracentrifugation and light scattering. Topics in sedimentation velocity, sedimentation equilibrium, buoyant density sedimentation, as well as static and dynamic light scattering and the complementarity of these approaches will be discussed. Macromolecular interactions involving mass action, concentration dependent nonideality, and reaction rates are covered. This course will also cover a range of data analysis approaches including the van Holde-Weischat method, the second moment method, direct boundary fitting by finite element modeling, the C(s) method, the 2-dimensional spectrum analysis, genetic algorithm optimization, nonlinear least squares fitting approaches to user-defined models. Statistical analysis using Monte Carlo and bootstrap methods also will be covered.
BIOC 5092. Nuclear Magnetic Resonance Spectroscopy For Biochemists. 2 Credit Hours.
This course provides a working knowledge of the basic underlying theory of modern pulsed Nuclear Magnetic Resonance methods in the study of the structures and internal dynamics of biological macromolecules in solution. The theoretical concepts to be covered include an overview of pulse excitation, digital sampling, and Fourier transformation. The product operator formalism will be used to describe how modern multinuclear multidimensional pulse methods function to yield the desired signals. The practical concepts to be covered will include an overview of modern methods for obtaining sequential resonance assignments, determining high-resolution three-dimensional structures, and analyzing internal dynamics.

BIOC 5093. Data Analysis In Biochemistry And Biophysics. 1 Credit Hour.
This course is required for all students enrolled in either Molecular Biophysics & Biochemistry Track, or the Diabetes & Metabolic Disorders Track, and is open to all students enrolled in the Integrated Multidisciplinary Graduate Program. The course covers statistical and mathematical analysis of typical biochemical data. Topics to be discussed include: enzyme kinetics, first and second order chemical reactions, ligand binding, scintillation counting of radioactivity, UV-VIS difference and derivative spectra, analytical ultra-sedimentation, and solution of multiple simultaneous equations using matrix algebra. Emphasis is placed upon the use of computers to analyze experimental data using programs running under Windows, or Linux platforms. Students will also become familiar with file transfers between these two platforms and the use of VNC viewer to enable their PC computers to be used as a Linux terminal.

BIOC 6010. Gene Expression. 2 Credit Hours.
The course covers gene expression focusing on regulation at the levels of transcription, RNA processing, transport and stability, and translation. Proteins and other regulatory molecules involved in these processes will also be covered. Particular emphasis will be placed on transcriptional control mechanisms including: RNA polymerases, chromatin remodeling, methylation and other epigenetic modifications, families of transcription factors including their DNA binding properties, protein-protein interaction domains, trans-activation mechanisms, regulation by ligand binding, phosphorylation and other signaling mechanisms and nuclear-cyttoplasmic transport; posttranscriptional mechanisms including: mechanisms of RNA splicing, nuclear-cyttoplasmic transport of RNA, RNA localization and targeting, RNA stability; and translational control. Post-transcriptional and translational control mechanisms will highlight the roles of RNA binding proteins and their modifications in these processes. Prerequisite: INTD 5000.

BIOC 6015. Metabolic Disorders. 2 Credit Hours.
This course will present an introduction to dysfunctions in normal metabolic processes that lead to major human disorders and pathologies. Major topics to be covered include the causes and pathogenesis associated with Type 2 diabetes, obesity, and related hormonal signaling pathways. Other topics will focus on lipid and protein metabolic disorders, and on dysfunctions associated with mitochondrial and extracellular matrix defects.

BIOC 6029. MBB Journal Club and Student Research Presentations. 2 Credit Hours.
To be taken by all graduate students in the MBB track each semester starting with the second year. Students will each make one presentation per semester. Presentations will typically be of a recent journal article in the area of biochemistry or biophysics. Journal articles for presentations must be approved by the instructor. With permission, a student may present a summary of his or her doctoral research. In the Spring semester of their third year, students will present a review of literature relevant to their doctoral research. Grading will be based on both the presentation and involvement in class discussion.

BIOC 6035. Drug Design And Discovery. 2 Credit Hours.
This course covers state-of-the-art approaches to the discovery and design of drugs - from small molecules to peptides - as well as drug delivery vehicles, with a strong emphasis on structure-based approaches. Topics to be covered will include the following: high-throughput screening, fragment based drug discovery, protein:protein and protein:ligand interactions, use of nuclear magnetic resonance (NMR), surface plasmon resonance (SPR) and fluorescent methods in drug discovery, virtual (in silico) screening, peptides and peptidomimetics, structure based drug design, and use of macromolecular assemblies as drug delivery vehicles and as targets for drug therapy. Prerequisites: INTD 5000.

BIOC 6036. Macromolecular Structure & Mechanism. 2 Credit Hours.
This course will cover the fundamentals of protein and nucleic acid structure and of enzyme catalysis. The course is required of students in the Molecular Biochemistry and Biophysics Track. Topics to be covered include: DNA and RNA structure, protein structure, protein folding, ligand binding by proteins, and enzyme catalysis.

BIOC 6037. Integration Of Metabolic Pathways. 2 Credit Hours.
The course is required of students in the Molecular Biophysics and Metabolic Pathways track. The objective is to provide an understanding of the individual reactions in intermediary metabolism and how the reactions are integrated by regulatory mechanisms. Topics include carbohydrate, lipid, and nitrogen metabolism and mechanisms of regulation of individual enzymes and metabolic pathways.

BIOC 6038. Surface Plasmon Resonance Workshop. 0.5 Credit Hours.
Surface plasmon resonance can be used to measure the equilibrium and rate constants of a variety of biomolecular interactions, including protein-protein, protein-small molecule, protein-nucleic acid and protein-phospholipid. In this laboratory intensive workshop, students will be exposed to the principles of experimental design, data collection, and data analysis utilizing state of the art instrumentation and model interactions.

BIOC 6069. Contemporary Biochemistry Student Review. 1 Credit Hour.
The course has two aspects. In the first, students will have the opportunity to put together a didactic lecture on a biochemical topic, essentially an oral review. Alternatively, students who attend a scientific meeting may pick a theme that was presented at that meeting in any of multiple venues (symposia, platform presentations, posters) and develop it as a presentation equivalent to an oral review. In each case, students will research the background of the material and present the latest findings. This is not intended to be a journal club but rather a didactic or teaching lecture. The course Director will work with the students ahead of time to assist them in preparing their presentation. The second aspect is that students who are not themselves presenting are required to attend the presentations. Biochemistry students must present at least once in years 3.5 of their matriculation in order to graduate with the Ph.D. degree. May be repeated for credit.
BIOC 6071. Supervised Teaching. 1-9 Credit Hours.
This course consists of teaching medical or dental biochemistry under close supervision of instructors. Management of small conference teaching groups as well as formal lecture presentations will be included.

BIOC 6097. Research. 1-9 Credit Hours.
This course consists of independent, original research under the direction of a faculty advisor.

BIOC 6098. Thesis. 1-9 Credit Hours.
Registration for at least one term is required of M.S. candidates.

BIOC 7000. Off-Campus. 4 Credit Hours.
All off campus rotations must be approved by the designated faculty member prior to the beginning of the rotation (at least one week before the course begins). Credit will not be given for any rotation that has not been approved in advance. Required paperwork includes: "Course Approval" form, a written letter or email for acceptance form the physician preceptor with the start and end dates of the course/rotation, and a course description of your learning objectives and responsibilities during the rotation. Forms must include a complete address and telephone number for the off campus location or residence address for the student while at the off campus site. Forms will not be approved after the rotation has already begun. Contact the department for assistance with enrolling in this course.

BIOC 7099. Dissertation. 1-9 Credit Hours.
Registration for at least two terms is required for Ph.D. candidates.

CIRCLE (CIRC)

Courses

CIRC 5001. Medicine, Behavior & Society Longitudinal Module. 6 Credit Hours.
The Medicine, Behavior, and Society module explores the areas of history, law, ethics, clinical, social and cultural contexts of medicine as well as human behavior & development over the lifespan (cognitive, social and emotional development from infancy to death.) The course will focus on global issues such as the health care system and on local issues such as the physician-patient relationship. Students will be introduced to communication skills, professionalism, research, and cultural competency.

CIRC 5003. Language of Medicine Longitudinal Module. 5.4 Credit Hours.
The Language of Medicine component of the curriculum serves as the common denominator necessary for students to be able to discuss systematic anatomy in the integrated modules to follow. Basic structure, conceptual anatomical principles and development of the human body presented. Knowledge is acquired in didactic sessions emphasizing clinical relevance, reinforced by practical application during laboratory application during laboratory sessions in which supervised cadaver dissection is performed by the students. Imaging techniques, procedures, demonstrations, and presentations by clinical specialists supplement the laboratory work.

CIRC 5005. Clinical Skills Longitudinal Module. 14.75 Credit Hours.
The Clinical Skills Longitudinal module threads throughout the entire first and second year curriculum. Using standardized and real patients, students learn medical history taking and physical examination techniques. In addition, through didactic sessions, simulations, small group sessions and labs, students master the knowledge, communication skills, professional, and interpersonal skills necessary for fostering positive doctor-patient relationships.

CIRC 5007. Fundamentals: Molecules to Medicine. 9 Credit Hours.
The Fundamentals: Molecules to Medicine module provides the foundation for subsequent courses and clinical practice. Through active, collaborative learning activities which may include, but are not limited to, laboratory, small group, and clinical case sessions the students gain a deeper understanding of the homeostatic structure of molecules, cells, and tissues. Students develop problem-solving skills in a multidisciplinary approach to human health and disease.

CIRC 5009. Attack and Defense. 9 Credit Hours.
The Attack and Defense module is an integrated and innovative look at microbiology, immunology, and infectious disease including public and international health issues. Students are prepared for clinical encounters requiring diagnosis, treatment, and preventive measures for immunological conditions and disorders and infectious diseases by fostering critical thinking skills. The learning environment promotes professional identity formation, effective communication and professionalism. Students acquire a broad understanding of normal and abnormal immune system function through active, collaborative learning activities which may include, but are not limited to laboratory, small group, and clinical case sessions.

CIRC 5011. Circulation. 5 Credit Hours.
The Circulation module provides an integrated approach to the basic and clinical science concepts related to the cardiovascular and hematopoietic systems. Students acquire a broad understanding of normal structure and function of the cardiovascular and hematopoietic systems including the cardiac cycle, cardiovascular pressures and flows, nutrients and oxygen delivery, hematopoiesis, and the hemostasis system through active, collaborative learning activities which may include, but are not limited to, laboratory, small group, and clinical case sessions. A comprehensive, multidisciplinary overview of the pathophysiology, epidemiology, biostatistics, interpretation of diagnostic tests, and pharmacotherapeutic and other therapeutic principles related to cardiovascular and hematopoietic disorders is included.

CIRC 5013. Respiratory Health. 4 Credit Hours.
The Respiratory Health module integrates basic science and clinical concepts related to respiratory health disease. A comprehensive study is conducted of the normal structure and function, pathophysiology/pathology, clinical manifestations, and interpretation of diagnostic tests for respiratory diseases. The student is immersed in a multidisciplinary study of pharmacotherapeutic approaches to treatment, interventional therapies, the use of evidence-based medicine and research, epidemiology, and prevention in the field of respiratory health. Students acquire a broad understanding of normal and abnormal respiratory system function through active, collaborative learning activities which may include, but are not limited to laboratory, small group, and clinical case sessions.

CIRC 5015. Renal and Male Reproductive. 5 Credit Hours.
The Renal and Male Reproductive module is a comprehensive overview of the structural and urologic components of the renal and the male reproductive system. Students gain a deeper understanding of glomerular and tubular function and pathology, as well as acute and chronic kidney injury and also benefit from a multidisciplinary approach represented by adult and pediatrics, and biochemistry. A broad understanding of normal and abnormal renal and male reproductive system function is achieved through active, collaborative learning activities which may include, but are not limited to laboratory, small group, and clinical case sessions.
CIRC 5017. Hematology. 3 Credit Hours.
The goal of this course is to expose students to the pathogenesis and pathophysiology of disease and disorders as they pertain to the specialty of hematology. During the module, the first-year medical students will come to appreciate the basic science foundation for the clinical practice of hematology. Students will gain an understanding of the medical non-medical factors that effect the hematology system.

CIRC 6001. Medicine, Behavior & Society Longitudinal Module. 6 Credit Hours.
The Medicine, Behavior, and Society module explores the areas of history, law, ethics, clinical, social and cultural contexts of medicine as well as human behavior & development over the lifespan (cognitive, social and emotional development from infancy to death.) The course will focus on global issues such as the health care system and on local issues such as the physician-patient relationship. Students will be introduced to communication skills, professionalism, research, and cultural competency.

CIRC 6005. Clinical Skills Longitudinal Module. 14.75 Credit Hours.
The Clinical Skills Longitudinal module threads throughout the entire first and second year curriculum. Using standardized and real patients, students learn medical history taking and physical examination techniques. In addition, through didactic sessions, simulations, small group sessions and labs, students master the knowledge, communication skills, professional, and interpersonal skills necessary for fostering positive doctor-patient relationships.

CIRC 6007. Mind, Brain and Behavior. 9 Credit Hours.
Mind, Brain, module provides a comprehensive introduction to the normal anatomy, development, physiology and radiological features of the human nervous system and its pathologic disorders. Through active learning methods, students will practice clinical assessment of the nervous system while learning the major features of common neurological, neurosurgical, psychiatric and psychological disorders and pharmacological approach for the nature of the experience of the brain. The student will gain an appreciation for the nature of the experience of having an illness affecting the brain and mind, and a deepened compassion for patients with these illnesses.

CIRC 6009. Endocrine & Female Reproductive. 7 Credit Hours.
The Endocrine- Reproductive module provides an integrated, comprehensive study of the normal structure and function of the endocrine and reproductive systems as well as the clinical manifestations of endocrine and reproductive disorders. Innovative, active learning methods which may include, but are not limited to laboratory, small group, and clinical case sessions allow students to develop critical thinking skills and gain a deeper understanding of the role of the endocrine system in regulation of metabolic activity, water and electrolyte balance, the endocrinology of the menstrual cycle, pregnancy, as well as human reproduction. The students benefit from a multidisciplinary approach incorporating the study of pharmacotherapeutic modalities, evidence based medicine, as well as current clinical/translational research applications into the endocrinology/reproductive medicine curriculum.

CIRC 6011. Digestive Health and Nutrition. 7 Credit Hours.
The Digestive Health and Nutrition module provides an integrated overview of the basic science and clinical concepts related to digestive health and nutrition. Through innovative learning methods that may include, but are not limited to laboratory, small group, and clinical case sessions, students gain a deeper understanding of the normal structure and function of the digestive system, as well as pathophysiology/ pathology, clinical manifestations and interpretation of diagnostic tests as they relate to digestive health and nutrition. This comprehensive, multidisciplinary study includes pharmacotherapeutic approaches to treatment, interventional therapies, psychosocial aspects of digestive disease, the use of evidence-based medicine and research, epidemiology, and prevention in the field of digestive health and nutrition.

CIRC 6013. Musculoskeletal and Dermatology. 7.5 Credit Hours.
The Musculoskeletal and Dermatology module provides a comprehensive study of the development, structure, and function of the musculoskeletal and integumentary systems. Students acquire a broad understanding of normal and abnormal musculoskeletal and dermatologic function through active, collaborative learning during laboratory, small group, and clinical case sessions. Diagnostic and therapeutic techniques in the management of musculoskeletal and dermatologic disorders are discussed.

Cardiothoracic Surgery (CTSR)

Courses

CTSR 3006. Cardiothoracic Surgery. Credit Hours.
Students will follow patients with cardiovascular, pulmonary, and foregut diseases throughout their hospital courses. They will perform admission history and physical examinations, observe and assist in the operating room and participate in the post-operative care in the intensive care unit and general ward. They will pre-round on their post-operative patients, develop daily care plans and present them to the team on rounds. They will also see patients in the outpatient clinics. They will attend educational conferences and begin to develop technical skills through participation in a suturing simulation lab. They will take call as designated by the cardiothoracic surgery service.

CTSR 3050. Congenital & Cardiac Surgery. Credit Hours.
The student will attend daily rounds with cardiologist, cardiac surgeons, pediatric internists and neonatologists on patients with congenital heart disease. They will admit and discharge patients with congenital heart disease. They will perform history and physical examinations and keep daily records on these patients. They will participate in congenital heart operations and cardiac catheterization procedures. They will participate in pre- and post-op care of these patients. They will attend clinic with both cardiologists and surgeons. They will attend conferences including congenital hear case review, M/M and PICU conferences weekly.

CTSR 4008. Cardiothoracic Surgery. 4 Credit Hours.
Senior students function as "sub-interns" on the cardiothoracic surgery service, taking part in all aspects of pre-operative and post-operative care in addition to observing and assisting in the operating room. They will be exposed to a wide range of pathophysiology, including cardiovascular, pulmonary and foregut disease, as well as hemodynamics and critical care. Daily responsibilities include rounding and presenting patients in the intensive care unit and inpatient ward, keeping daily records, seeing in patient consults, assisting with patient discharges and mentoring third-year medical students. Students will also evaluate patients in the outpatient clinics and emergency room. They will attend education conferences and present a case at department grand rounds. They will take call as designated by the cardiothoracic surgery services.
Cellular & Structural Biology (CSBL)

Courses

CSBL 3005. Advanced Anatomy. Credit Hours.
Selected students will participate in lectures, detailed dissections, presentations, and teaching of Pre-Matriculation students in the gross anatomy laboratory. A special project or readings in the surgical anatomy literature will be assigned. This elective is considered to be a full-time commitment (40 hours per week). Students are expected to 1) attend all lectures given in the Pre-Matriculation program, 2) to teach in all scheduled laboratory sessions, 3) to prepare and present dissections, 4) to help prepare a laboratory examination, 5) to write and present a literature review on an original topic of interest to the student related to the region of the body being studied.

CSBL 4000. Special Topic. 4 Credit Hours.
This is a self-designed course created by both the student and the department to cover a specific topic. A Course Approval Form must be completed along with documentation of the designed course description.

CSBL 4001. Anatomy of the Newborn. 4 Credit Hours.
Detailed gross dissection and study of newborn specimen with special emphasis on developmental origins as well as features and relationships differing from the adult; combined with library study of developmental malformations. Course fees: Lab fee $30.

CSBL 4002. Regional Anatomy. 4 Credit Hours.
Anatomy associated with one of the usual medical or surgical specialties, such as gastroenterology, neurology, orthopedics, obstetrics and gynecology, etc. Activities include detailed dissection, presentation of dissected material, assigned readings, and individual project. Course fees: Lab fee $30.

CSBL 4004. Selected Research Project. 4 Credit Hours.
Individual research projects to be arranged between the student and faculty members with whom he/she wishes to work.

CSBL 4005. Advanced Anatomy. 4 Credit Hours.
Selected students are required to participate in lectures, detailed dissections, presentations of prosected material, and teaching in the first year medical gross anatomy laboratory. Special projects, activities, and assigned readings in the surgical anatomy and history of anatomy literature. Course fees: Lab fee $30.

CSBL 4017. Advanced Neuroanatomy. 4 Credit Hours.
Selected students will be assigned a special project and readings in the neurological anatomical literature. Course Fees: Lab fee $30.

CSBL 4024. History of Anatomy In Situ: Reawakening & Development of Anatomy in the 14th - 18th Century Italy. 4 Credit Hours.
An in-depth study of the awakening and development of anatomy in 14th - 18th century Italy, visiting the sites where this occurred in Padua, Bologna, and Florence. The course consists of one week of didactic lectures and discussion prior to two weeks in Italy visiting anatomical museums and two of the oldest universities in the world, and ending with a week of student presentations based on a paper focusing on a historical, social, or scientific issue arising during this period in the Italian medical schools and currently relevant to the students' chosen field of medicine.

CSBL 5007. Methods In Cell Biology. 1 Credit Hour.
Through a combination of lectures and demonstrations, the instructors will introduce students to techniques which are currently being used in cellular biology laboratories. The emphasis will be on the applications themselves, their uses, limitations, and the necessary controls. The following topics will be covered: imaging and microscopy, immunological techniques, bioinformatics (DNA and protein), rodent anatomy and histology, cytogenetics, and in vitro cell growth and transfection.

CSBL 5012. Physician Assistant Gross Anatomy. 5 Credit Hours.
This course will cover the basic principles of human anatomy. Lectures are correlated with laboratory sessions in which students will learn human gross anatomy of the adult through the study of cadaver dissections, bones, models, atlas drawings and radiographs. Emphasis will be placed on basic systems anatomy as they apply to the physician’s assistant. Course Fees: Gross Anatomy fee $30.00.

CSBL 5013. Gross Anatomy. 6 Credit Hours.
This course will teach structural and functional anatomy of the normal human body. Lectures will serve as introductory information for the laboratory dissections to follow and to clarify the interactions of the various anatomical components to accomplish the function of the body. The course will cover the central and peripheral nervous systems, vertebral column and back, head and neck, body wall, thorax, abdomen, pelvis, and perineum, and the upper and lower limbs. Special emphasis will be placed on the laboratory experience in which the learner will perform a detailed dissection of the entire human body in order to achieve an understanding of the three-dimensional relationships and thus the interactive function of the body. These dissections will be supplemented by the study of prosected specimens, models skeletons, and other demonstration materials. Course fees: Lab fee $30 Human Materials fee $865.

CSBL 5015. History Of Anatomy. 2.5 Credit Hours.
The history of anatomy course is designed to acquaint medical, dental, and graduate students with the history of medicine and especially with the physicians and scientists who made essential discoveries in human anatomy. Using a biographical approach, the course is presented as a seminar with lectures, assigned readings and student presentations.
CSBL 5016. Dental Gross Anatomy. 6 Credit Hours.
The focus of this course is the structure of the human body, with emphasis on the functional anatomy of the trunk, neck, head, and nervous system. Regional dissection of a human cadaver, by groups of students, is supplemented by individual study of prosections, models, skeletons, and other demonstration materials and is guided by lectures, conferences, and films. The first part of the course, which deals with the anatomy of the thorax and abdomen, presents a general overview of the functional architecture of most major body systems. The emphasis is on principles of structure, to allow development of a holistic understanding of human biology, both normal and pathological. The latter half of the course is devoted to study of the head and neck; greater emphasis will be placed on anatomical relationships with obvious reference to clinical dentistry. Course Fees: Human materials fee: $865 Lab fee: $30.

CSBL 5019. Gross Human Anatomy For Graduate Students. 6 Credit Hours.
This course will teach structural and functional anatomy of the normal human body. Lectures will serve as introductory information for the laboratory dissections to follow and to clarify the interactions of the various anatomical components to accomplish the function of the body. The course will cover the central and peripheral nervous systems, vertebral column and back, head and neck, body wall, thorax, abdomen, pelvis and perineum, and the upper and lower limbs. Special emphasis will be placed on the laboratory experience in which the learner will perform a detailed dissection of the entire human body in order to achieve an understanding of the three-dimensional relationships and thus the interactive function of the body. These dissections will be supplemented by the study of prosected specimens, models skeletons, and other demonstration materials. Permission of course director if required to enroll. Course Fees: $865 Lab fee: $30.

CSBL 5020. Dental Neuroscience. 1.5 Credit Hour.
This course will present the student with the basics of neuroanatomy underlying somatosensory perception, special senses, orofacial reflexes, and common neurological disorders. The emphasis will be on neuroanatomical pathways relevant to the head and neck, especially those mediated by the trigeminal system. The course also will include consideration of motor pathways and the special senses, disorders of which will necessarily influence treatment plans developed by future dental practitioners. Acquisition of a basic understanding of the neuroanatomical pathways discussed in lectures will be reinforced by laboratory sessions with representative images of brain and spinal cord sections.

CSBL 5023. Development. 1 Credit Hour.
The course provides a survey of concepts in developmental biology (induction, cell-cell interactions, morphogen gradients, morphogenetic movements, transcription regulation, organogenesis) using experimental examples from both invertebrate and vertebrate embryos. The first set of lectures will focus on gametogenesis, fertilization, and early developmental events, such as cleavage, midblastula transition, gastrulation, and axis formation. The second set of lectures will explore the fates of germ layers in the contexts of cell type-specific differentiation and cell-cell interactions during organogenesis.

CSBL 5024. Genomics. 1 Credit Hour.
This course covers historical aspects of the Genomic project and high throughput methods (microarray, SAGE, proteomics, etc.) to perform global analysis of gene expression; the course also provides an overview of new biological fields such as systems biology, functional genomics, and comparative genomics. The students will have the opportunity to become familiarized with tools, methods, databases, and approaches used to extract biological information from global analyses. Hands-on training on biological databases and classes covering examples of the use of genomics to answer questions related to cancer and diseases is an important part of the course, helping the students to visualize how genomics can be used in their own research projects.

CSBL 5025. Genetics. 1 Credit Hour.
This course is designed to provide an overview of genetic research. Topics to be covered include: cytogenetics, mitochondrial genetics, cancer genetics, linkage analysis, complex traits, population genetics, animal models, sex determination, and epigenetics.

CSBL 5026. Stem Cell Biology. 1 Credit Hour.
This course is an up-to-date overview on current topics in stem cell biology. It is intended for the (future) basic scientist who is interested in studying the regulatory mechanisms of stem cells as well as for the (future) clinician who is interested in how stem cell biology will continue to impact patient care. Topics that will be discussed are: (1) basic biology and stem cells, including embryonic stem cells, adult stem cells, stem cells in different tissues and model systems; (2) microenvironment-mediated; (3) epigenetic regulators of stem cells; (4) stem cells in medicine, including regenerative medicine, cancer and aging; and (5) ethics.

CSBL 5032. Dental Histology. 5 Credit Hours.
Through lectures, demonstrations, and laboratory work, students in this course will be given the opportunity to study the microscopic structure of the basic tissues and organs of the human body, followed by details of the embryologic development and microscopic structure of the various organs of the oral cavity. Current concepts in cellular biology are presented during the portion of the course in which they are most relevant. The general purpose of this course is to give students the opportunity to become acquainted with the basic embryology, cytology, and histology of normal human tissues and organs, thereby providing a foundation of knowledge for the understanding of normal activity and disease processes. Course Fees: Included in general lab fee. $48 microscope fee for the Freshman year includes this course.

CSBL 5074. Introduction to Research. 0.5 Credit Hours.
This course is required of all Ph.D. students in Cellular & Structural Biology. In this course students will have the opportunity to learn of the research programs in the department. This course will not only introduce students to the research strategies, but also inform them of opportunities for rotations.
CSBL 5077. Scientific Writing. 2 Credit Hours.
This course will provide students with the opportunity to develop skills in scientific writing and the presentation of research results. It will emphasize learning-by-doing-and-re-doing. Students will be required to write something every week. The capstone project for students will be to write a grant proposal and defend it in front of the class. One hour per week will be devoted to lecture and critique of published work; the other hour will consist of critique and revision of student writing by other students, as well as by the course director. Topics to be covered include: (1) fundamentals of writing clearly, (2) principles of revision, (3) effective presentation of data, (4) fundamentals of oral presentation, (5) writing/presenting to the appropriate audience, (6) how to write background/introductory sections, (7) how to write materials and methods, (8) how to write the discussion section, and (9) how to constructively critique one’s own and others writing.

CSBL 5083. Practical Optical Microscopy. 1 Credit Hour.
This course will be a one-hour elective for graduate students consisting of eight (8) one-hour lectures plus eight (8) one-hour laboratories. The course focuses on the practical aspects of using optical microscopes. The objectives are to teach students the fundamental principles of optical microscopy and to provide them with hands-on experience using the optical instrumentation in the Institutional Imaging Core.

CSBL 5089. Graduate Colloquium. 2 Credit Hours.
This course is designed to provide graduate students with training in evaluating the scientific literature and in presentation of research in a seminar or journal club format. The course will focus on critical thinking, including evaluation of existing literature, interpretation of experimental results, and comparison of alternative models and interpretations. These tools are essential both for oral presentations and for writing grant proposals and manuscripts. Emphasis will be placed on evaluation of the science, organization of the manuscript, and on oral presentation skills.

CSBL 5091. Special Topics. 1-9 Credit Hours.
No description available.

CSBL 5095. Experimental Design And Data Analysis. 2 Credit Hours.
The purpose of the course is to provide an introduction to experimental design and statistical analysis. The emphasis of the course will be on the selection and application of proper tests of statistical significance. Practical experience will be provided in the use of both parametric and nonparametric methods of statistical evaluation. Among the topics to be covered are: data reduction, types of distributions, hypothesis testing, scales of measurement, chi square analysis, the special case of the comparison of two groups, analysis of variance, a posteriori multiple range tests, tests of the assumptions of parametric analyses, advanced forms of the analysis of variance, linear regression, and correlation analysis. This course will be partially conducted online; therefore, access to a computer with Web access is required. A camera and microphone/headphone attached to the computer will enhance the learning experience.

CSBL 6015. Selective Topics In Oncology: Gynecological Cancers. 2 Credit Hours.
This advanced elective course for the Cancer Biology Track provides a unique learning experience intended to prepare students in the emerging research areas of gynecological cancers for designing research experiments using pre-clinical and clinical research materials. The entire course comprises a small-group format in which students interact closely with a group of faculty who has active research or clinical programs focusing on molecular, clinical, and therapeutic areas of gynecological cancers.

CSBL 6021. Animal Models. 3 Credit Hours.
The relevant biology, applicability, and practical use of a number of animal models to biomedical research is covered. Invertebrate (e.g., C. elegans) and vertebrate (e.g., fish and rodents) model systems are included in the course. Strengths and weaknesses of each organism that render them particularly valuable as animal models are emphasized. Experimental approaches and tools that are utilized in conjunction with each animal model are rigorously examined. The course is taught from primary scientific literature using classic historical publications and recent publications.

CSBL 6048. Biology of Aging. 4 Credit Hours.
Biology of Aging is the core course of the Biology of Aging Track. The course consists of two modules: Aging and Longevity Mechanisms and Molecular and Cellular Mechanisms of Aging. The purpose of this course is to provide students with the most up-to-date information on the current understanding of the aging process. This advanced interdisciplinary graduate course provides experimental understanding of the interrelated areas of aging and age-related diseases. Faculty from several departments will be involved in teaching this course, which will cover the molecular and cell biology of aging, model systems used for aging studies, age-related changes in organs and tissues, and age-related diseases.

CSBL 6049. Cellular and Molecular Mechanisms of Aging. 2 Credit Hours.
This course provides up-to-date information on the current understanding of cellular and molecular mechanisms that contribute to aging. The focus is on investigation of specific mechanisms of aging including oxidative stress, nutrient sensing signaling pathways, stem cells and senescence, and genome stability. Experimental design and analysis, including pros and cons of approaches used to gain knowledge and how to appropriately interpret data, will be discussed throughout the course. The relationship between age-related changes in function and potential contributions age associated diseases will be examined via recently published research.

CSBL 6050. Aging and Longevity Mechanisms. 2 Credit Hours.
This module will focus on and evaluate several approaches used to modulate longevity and how these are used to discover the genetic, physiological and intracellular foundation of aging processes. The course will consist of interactive lectures complemented by guided reading of currently research papers. Students will be taught to hone critical reading skills and develop testable hypotheses to carry research forward. Topics will include: Genetics of Aging, Exceptional Longevity, Pharmacological Interventions, Calorie Restriction, Healthspan and Pathology of Aging.

CSBL 6058. Neurobiology Of Aging. 2 Credit Hours.
The nervous systems of many species, including humans, show obvious declines in function as a result of increasing age. In addition to the gradual decline observed in neural function, it is clear that increasing age also results in increased susceptibility of the nervous system to degenerative diseases such as Alzheimer’s Disease, Parkinson’s Disease, and Amyotrophic Lateral Sclerosis. This course will focus on recent findings and topics related to the underlying pathology of aging in the nervous system and the relationship of aging to neurodegenerative disease.
CSBL 6064. Genes & Development. 4 Credit Hours.
Genes and Development is the core course of the Genetics, Genomics, and Development Track. The course consists of four modules: genetics, genomics, developmental biology, and stem cell biology. Basic concepts in genetics such as cytogenetics, mitochondrial genetics, cancer genetics, linkage analysis, complex traits, population genetics, animal models, sex determination, and epigenetics will be presented. The genomics section will include historical aspects of the genome project and high throughput analysis. The students are introduced to new techniques in global analysis as well as have hands-on experience. The developmental biology section provides a survey of concepts in developmental biology (induction, cell-cell interactions, morphogen gradients, morphogenetic movements, transcriptional regulation, organogenesis) using experimental examples from both invertebrate and vertebrate embryos. The stem cell biology section includes the following topics: basic biology of stem cells, including embryonic stem cells, adult stem cells, stem cells in different tissues and model systems; microenvironment-mediated and epigenetic regulators of stem cells; stem cells in medicine, including regenerative medicine, cancer, and aging; and ethics. Required for the Genetics, Genomics & Development Track.

CSBL 6068. Cancer Biology Core 1. 2 Credit Hours.
This course reviews select topics in molecular and cellular biology of importance to molecular oncology. Topics examined include oncogenes, tumor suppressor genes, apoptosis, control of cell cycle regulation, and control of cellular growth and proliferation. The goal of the course is to prepare graduate students to critically evaluate published research in molecular oncology. Required for Cancer Biology Track.

CSBL 6069. Cancer Biology Core 2. 2 Credit Hours.
This course is designed to provide an overview of the molecular alterations identified in the most common cancer types in humans. The general guidelines on recent diagnosis and therapeutic advances in oncology will be presented. In addition, it will offer an overview on special populations affected by cancers or by less frequent but biologically informative cancers and basic concepts related to experimental tools relevant to cancer biology, including mouse models of tumors and molecular profiling. The conceptual notions on clinical trials of cancer drugs and the process of development of novel therapeutic drugs in cancer will be discussed. Required for Cancer Biology Track.

CSBL 6071. Supervised Teaching. 1-9 Credit Hours.
This course consists of participation in the teaching program of the first-year medical, dental, or health professions curriculum. Semester hours vary depending on the time spent in teaching.

CSBL 6073. Selective Topics In Oncology: Gynecological Cancers. 2 Credit Hours.
This is an advanced elective course for the Cancer Biology Track. The course is a unique learning experience in preparing students in the emerging research areas of gynecological cancers for designing research experiments using preclinical and clinical research materials. The entire course is a small-group format in which student interact closely with a group of faculty who have active research or clinical programs focusing on molecular, clinical, and therapeutic areas of gynecological cancers.

CSBL 6074. Molecular Aspects Of Epigenetics. 2 Credit Hours.
The purpose of this course is to develop an understanding of the molecular aspects of epigenetics. This advanced course will be a unique learning experience that prepares the student to evaluate and design new research in the areas of epigenetic processes including imprinting, gene slicing, X chromosome inactivation, position effect, reprogramming, and the process of tumorigenesis. This module concerns epigenetic mechanisms. Topics include: DNA methylation, histone modifications, epigenetics and stem cells, cancer epigenetics, RNA interference and epigenetics, bioinformatics and epigenetics, and translational epigenetics. This course will include a didactic program and student discussion. For the student discussion module, faculty and students will jointly discuss key publications that serve to bridge the gap between the student’s prior understanding of the field and the state of the art in that area.

CSBL 6090. Seminar. 1-9 Credit Hours.
Attendance and participation in the regularly scheduled department seminar series is required each semester the course is offered. The activities included in the seminar course are attendance at invited seminars, journal club, and the student presentations including student annual progress and final dissertation and thesis presentations.

CSBL 6094. Advanced Neuroanatomy. 0.5 Credit Hours.
This course in neuroanatomy is offered to graduate students seeking to advance their knowledge beyond the fundamental level. The course consists of reading from more advanced texts and current anatomical literature as well as dissection of deep white matter tracts within the cortex. The student must also complete a 20-page paper on a neuroanatomical topic.

CSBL 6095. Functional Genomic Data Analysis. 2 Credit Hours.
This course covers basics of genomic data analysis. Focus is on general computational methods, their biomedical basis, and how to evaluate analysis results. Qualitative algorithm descriptions are expected. Prerequisites: CSBL 5095 or Equivalent.

CSBL 6097. Research. 1-9 Credit Hours.
This course consists of independent, original research under the direction of a faculty advisor.

CSBL 6098. Thesis. 1-9 Credit Hours.
This course consists of instruction in the preparation of the thesis. Registration for at least one term is required of M.S. candidates. Admission to candidacy for Master of Science degree is required.

CSBL 6165. Medical Genetics. 3 Credit Hours.
This course provides an introduction to the basic concepts of medical genetics and current areas of medical genetic research. The course reviews basic genetic concepts including the principles of Mendelian and nontraditional inheritance, cytogenetics, molecular genetics, quantitative and population genetics, and discuss important medical aspects of genetic counseling and pedigree analysis, dysmorphology, cancer genetics and counseling for inherited cancers, developmental genetics, prenatal diagnosis, newborn screening, and pharmacogenetics. Diagnosis and current research toward treatment and cure of common genetic disorders affecting metabolism, reproduction, the endocrine system, the functioning of the eye and the nervous system are discussed. An important aspect of the course will be a discussion of ethical issues in medical genetics. A basic background in genetics, cell biology, and biochemistry is assumed. Prerequisites: A basic background in genetics, cell biology, and biochemistry.
CSBL 7000. Off Campus. 4 Credit Hours.
All off campus rotations must be approved by the designated faculty member prior to the beginning of the rotation (at least one week before the course begins). Credit will not be given for any rotation that has not been approved in advance. Required paperwork includes: “Course Approval” form, a written letter or email for acceptance form the physician preceptor with the start and end dates of the course/rotation, and a course description of your learning objectives and responsibilities during the rotation. Forms must include a complete address and telephone number for the off campus location or residence address for the student while at the off campus site. Forms will not be approved after the rotation has already begun. Contact the department for assistance with enrolling in this course.

CSBL 7014. Anatomy 1. 5 Credit Hours.
This course provides the basic principles of human anatomy. Students have the opportunity to learn human anatomy as it relates to function through the study of bones, cadaver prossections, models, atlas drawings and photographs, and their own bodies. Concentration is on osteology, radiology, arthology, neuromuscular, vascular, and basic systems anatomy as they apply to physical therapy. Course fees: Lab Assistance fee $10 per hour Gross Anatomy Lab fee $30.

CSBL 7099. Dissertation. 0.5-9 Credit Hours.
Registration for at least one term is required of Ph.D. candidates. Prerequisites: admission to candidacy for Doctor of Philosophy degree.

CSBL 8010. Anatomy 2. 2 Credit Hours.
This course reinforces principles of human anatomy studied in CSBL 7014. Students study human anatomy as it relates to function through cadaver dissection. Concentration is on osteology, radiology, arthrology, neuromuscular, vascular, and basic systems anatomy as they apply to physical therapy. Course fees: Lab Assistance fee $10 per hour Gross Anatomy Lab fee $30 Human Materials fee $865.

Clinical Laboratory Science (CLSC)

Courses
CLSC 3000. Introduction to Clinical Laboratory Sciences. 2 Credit Hours.
This Web-based course is an overview of the clinical laboratory profession. There are three general areas of study. The first is information on the profession including history, educational requirements, job responsibilities and opportunities, as well as the structure and role of the clinical laboratory in medicine. The second is an introduction to medical terminology using an overview of the body systems. Examples of the use of laboratory tests to detect pathologies in these systems are included. The third area is quality assurance. Enrollment is open to laboratory science students at other universities both in state and out of state. Texas residents and non-residents living in Texas pay applicable tuition and fees of the Health Science Center.

CLSC 3001. Phlebotomy Practicum. 0.5 Credit Hours.
Under the direction and supervision of a clinical instructor in a hospital or outpatient facility, the student will be given the opportunity to gain experience and expertise in phlebotomy procedures. This practicum may be taken anytime after the student has been accepted into the program. Positions will be based on the availability of sites. Students must arrange this practicum with the education coordinator before enrolling. This practicum must be completed before beginning clinical practicums in the senior year.

CLSC 3010. Body Fluids. 2 Credit Hours.
This is a study of selected body fluids including urine, amniotic fluid, cerebrospinal fluid, pleural fluid, peritoneal fluid, pericardial fluid, and synovial fluid. Renal physiology and the physical and chemical properties of urine and cellular elements of the urine in healthy and diseased states are studied. The formation and function of cerebrospinal fluid and amniotic fluid will be discussed. The anatomy and physiology of pleural, peritoneal, and pericardial cavities will be presented. Attention is given to the cellular and formed elements found in these body fluids. In addition, this course includes the performance of various laboratory procedures utilized in the analysis of each of these fluids. Case studies will be used to emphasize the changes in laboratory results associated with various disease states. Principles and applications of quality control procedures are practiced.

CLSC 3011. Quality Assurance in the Clinical Laboratory. 1 Credit Hour.
This course presents the principles, statistics, and applications of quality assurance as it pertains to the clinical laboratory. The course will emphasize the statistics that are needed to evaluate a quality control system, the rules that are necessary for interpreting the quality control results, and the role of quality control in a quality assurance program. The impact of federal and state regulatory agencies on the clinical laboratory and its quality assurance program will be discussed. A large part of this course is via computer-assisted instruction.

CLSC 3020. Special Topics in Clinical Immunology. 1-2 Credit Hours.
This course is designed for students who have completed a course that included clinical immunology/serology at an accredited CLT/MLT program. The course provides the student the opportunity to gain an understanding of selected immunology/serology topics that may include theory and/or practice. The topics vary according to student's previous experience and education. Credit hours are variable. Hours will be assigned based on the topics covered. Prerequisites: proficiency exam, permission from course director.

CLSC 3022. Special Topics in Body Fluids. 1-2 Credit Hours.
This course is designed for students who have completed a course that included urinalysis and other body fluids at an accredited CLT/MLT program. The course provides the student the opportunity to gain an understanding of selected body fluids topics that may include theory and/ or practice. The topics vary according to student’s previous experience and education. Credit hours are variable. Hours will be assigned based on the topics covered. A proficiency exam and permission from course director are required.

CLSC 3033. Medical Microbiology. 3 Credit Hours.
This is a comprehensive study of medically important microorganisms including their composition, morphology, and growth requirements. Methods for identification including biochemical reactions of significant pathogens and their role in infectious disease will be stressed.

CLSC 3034. Medical Microbiology Lab. 2 Credit Hours.
This is a laboratory course emphasizing diagnostic clinical microbiology. Examination of samples from different body sites provides students the opportunity to recognize and identify organisms that comprise the normal flora and those that are potential pathogens. This course includes conventional and rapid biochemical methods for detection and identification of significant organisms. Principles and application of quality control procedures are practiced. Corequisites: CLSC 3033.
CLSC 3035. Special Topics in Medical Microbiology. 1-5 Credit Hours.
This course is designed for students who have completed a medical microbiology course at an accredited CLT/MLT program. The course provides the student the opportunity to gain an understanding of selected medical microbiology topics that may include theory and/or practice. The topics vary according to student’s previous experience and education. Credit hours are variable. Hours will be assigned based on the topics covered. Proficiency exam and permission from course director are required.

CLSC 3040. Special Topics in Microbiology. 2.5 Credit Hours.
This lecture and laboratory course will focus on the transmission, pathophysiology, clinical sites of infection, clinical presentation, life cycles, and identification of infrequently isolated bacterial pathogens, anaerobes, mycobacteria, viruses, parasites and fungal agents. Specimen collection techniques and methods of processing specimens for each group of organisms will be included. Laboratory sessions will focus on microscopic identification as well as classic and rapid methods of detection and identification of these etiologic agents. Prerequisites: CLSC 3033 and CLSC 3034.

CLSC 3051. Hematology. 3 Credit Hours.
This course is a study of the normal production, maturation, and function of erythrocytes, leukocytes, and platelets. Common disorders involving such cells will be discussed with emphasis on the pathogenic mechanisms. Hematologic laboratory tests and their correlations with disease states will also be examined. Normal hemostasis will be considered including pertinent laboratory tests used in diagnosis of coagulation problems.

CLSC 3052. Hematology Laboratory. 2 Credit Hours.
This is a clinical laboratory course emphasizing manual and semi-automated cell counting techniques and other basic hematologic tests. Time is devoted to the examination of normal and abnormal blood smears with emphasis on identification of cells and their relationships to various disease processes. An introduction to quality control methods in the hematology laboratory will also be included. Corequisites: CLSC 3051.

CLSC 3060. Immunohematology. 2 Credit Hours.
This is a study of the major blood groups of humans including the red cell antigen systems, alloantibodies, and non-immune stimulated antibodies. The relationship of blood group systems to compatibility testing, transfusion reactions, and hemolytic disease of the newborn will be discussed.

CLSC 3063. Special Topics in Immunohematology. 1-4 Credit Hours.
This course is designed for students who have completed an immunohematology course at an accredited CLT/MLT program. The course provides the student the opportunity to gain an understanding of selected immunohematology topics which may include theory and/or practice. The topics vary according to student’s previous experience and education. Credit hours are variable. Hours will be assigned based on the topics covered. A proficiency exam and permission from course director are required.

CLSC 3064. Immunohematology Laboratory. 2 Credit Hours.
This is a laboratory course emphasizing basic blood banking techniques including blood typing, identification of alloantibodies, and resolution of typing discrepancies. Techniques used in resolution of compatibility testing, investigation of transfusion reactions, and hemolytic disease of the newborn are practiced. Principles and applications of quality control are introduced. Corequisites: CLSC 3060.

CLSC 3065. Clinical Immunology. 3 Credit Hours.
This course will discuss the principles of innate and acquired immunity. Emphasis will be placed on the cell-mediated immune response and humoral immune response to immunogens. The cells of either response, their development, and their role in the specific immune response will be discussed. Soluble mediators of the immune response will be covered including immunoglobulins, cytokines, and complement. Finally, disorders of impaired immune function and infectious diseases will be discussed including autoimmunity, hypersensitivity, transplantation and tumor immunology, immunodeficiency, syphilis, infectious mononucleosis, etc. Laboratory testing for these disorders will be described.

CLSC 3070. Diagnostic Immunology Lecture. 1.5 Credit Hour.
This didactic course presents the principles and applications of immunology as it pertains to diagnosis of disease states. The course will cover methods to detect infectious as well as autoimmune diseases using immunologic technologies such as immunofluorescence, enzyme immunoassays, and flow cytometry. Correlation of the laboratory results with the disease states will be emphasized. Clinical applications of flow cytometry, histocompatibility testing, serology, and immunochemistry assays will be presented. Immunology is required.

CLSC 3071. Diagnostic Immunology Laboratory. 0.5 Credit Hours.
This laboratory course will offer the opportunity for students to perform immunologic procedures commonly used in the diagnosis of infectious and autoimmune diseases. Principles and applications of quality control procedures are practiced.

CLSC 3072. Molecular and Immunological Diagnosis. 4 Credit Hours.
This didactic course presents the principles of molecular biology and an in-depth review of immunology. Molecular and immunological techniques such as PCR, western blotting, flow cytometry, and immunochemistry assays will be discussed with an emphasis on the diagnosis of disease states. Clinical applications in forensics, paternity testing, diagnosis of infectious disease states, inherited conditions and neoplasms will be presented.

CLSC 3073. Molecular and Immunologic Diagnostic Lab. 1 Credit Hour.
This laboratory course will offer the opportunity for students to perform both molecular and immunologic techniques. Students will perform molecular diagnostic techniques such as PCR and gel electrophoresis that are used in the investigation of inherited conditions and neoplasms and become familiar with potential sources of error. Students will also perform immunologic procedures commonly used in the diagnosis of infectious and autoimmune diseases. Principles and applications of quality control procedures are practiced. Corequisites: CLSC 3072.

CLSC 3081. Clinical Chemistry. 2.5 Credit Hours.
The study of carbohydrates, enzymes, proteins and other chemicals routinely analyzed in clinical chemistry laboratories. Emphasis is placed upon principles of testing, methods of analysis, data interpretation, and clinical significance of results. Laboratory mathematics, quality control, safety, and instrumentation also are topics covered.

CLSC 3082. Clinical Chemistry Laboratory. 1.5 Credit Hour.
This is a laboratory course emphasizing biochemical analysis of body fluids utilizing manual procedures and semi-automated instrumentation. Students are given the opportunity to develop motor skills and organizational techniques in biochemical procedures. Principles and applications of quality control procedures are practiced. Corequisites: CLSC 3081.
CLSC 3083. Special Topics in Clinical Chemistry. 1-4 Credit Hours.
This course is designed for students who have completed a clinical chemistry course at an accredited CLT/MLT program. The course provides the student the opportunity to gain an understanding of selected clinical chemistry topics that may include theory and/or practice. The topics vary according to student’s previous experience and education. Credit hours are variable. Hours will be assigned based on the topics covered. A proficiency exam and permission from course director are required.

CLSC 3085. Principles of Biochemistry. 3 Credit Hours.
This course is a discussion of the basic biomedical processes that occur in the human body. Topics that will be covered include the molecular basis of life, molecular structure, bioenergetics, enzymes, and metabolism.

CLSC 4006. Professional Issues. 1 Credit Hour.
This interdisciplinary course will provide an overview of professional and ethical issues facing allied health professionals. Topics to be discussed include responsibilities of the health care practitioner, life and death decisions, patient confidentiality, substance abuse, whistle blowing, and informed consent. Ethics in research and other critical issues related to health care problems will also be addressed. Collaborative activities and simulated cases will be used to enhance discussion among students.

CLSC 4020. Issues in Health Care. 1-3.5 Credit Hours.
This course is a study of selected topics in health care. Consent of instructor is required.

CLSC 4033. Advanced Medical Microbiology. 2 Credit Hours.
This course will discuss etiology of infectious diseases in different body sites. Laboratory identification of suspected etiologic agents, using conventional methods, will be emphasized. Recent developments in microbiology and new rapid methods in the identification of bacterial agents of infectious disease will also be presented. One section of this course is in a distance-learning format offered via the Web. Students wanting to enroll in the Web section must receive permission from the instructor.

CLSC 4035. Introduction to Molecular Diagnostics. 1.5 Credit Hour.
This course is a study of recombinant DNA concepts and technology. Applications of this technology in diagnosis and therapy of disease is emphasized. The course is a combination of lecture and laboratory. Prerequisites include genetics and junior CLSC coursework. One section of this course is in a distance-learning format offered via the Web. Students wanting to enroll in the Web section must receive permission from the instructor.

CLSC 4037. Microbiology Practicum. 4 Credit Hours.
Under the supervision and direction of a clinical instructor in the hospital setting, the student is introduced to the functional roles of the clinical microbiology laboratory. Emphasis is on the practical application of microbiological principles in the areas of bacteriology, parasitology, mycology, and mycobacteriology. Students have the opportunity to gain experience in the isolation and identification of both indigenous microflora and potential disease producing organisms of man. Concepts of Total Quality Management (TQM) are emphasized.

CLSC 4038. Microbiology Categorical Practicum. 10 Credit Hours.
Under the direction and supervision of a clinical instructor in the clinical microbiology lab, the student is introduced to the functional roles of the clinical microbiology laboratory. Students will have the opportunity to develop proficiency in the areas of bacteriology, parasitology, mycology, mycobacteriology, immunology, and virology. A period of time will be devoted to allow the student to gain experience in performing microbiological studies in each of these areas.

CLSC 4040. Human Genetics. 2 Credit Hours.
An advanced course which provides the student an opportunity to study the cell cycle, oogenesis, spermatogenesis, Mendelian inheritance, polygenic inheritance, population genetics, medical genetics, clinical cytogenetics, and basic molecular techniques. The course is self-paced requiring approximately 2 hours per week. Prerequisites: Admission to Cytogenetics Program or consent of instructor.

CLSC 4041. Clinical Cytogenetics. 4 Credit Hours.
This is an advanced lecture course covering theories, concepts, and techniques applicable to the practice of clinical cytogenetics. Topics include mitotic and meiotic cell cycles with emphasis on errors and manipulations, chromosome structure, mechanisms of chromosome abnormality formation, cytogenetics syndromes, inheritance patterns, cancer genetics, instability syndromes, clinical correlation of chromosome abnormalities, microscopy, computer imaging, cell culture, analysis, ISCN, pedigree construction, and other current genetic issues. Prerequisites: CLSC 4040 or consent of instructor.

CLSC 4042. Hematology for the Geneticist. 1 Credit Hour.
This is an advanced study of the normal production, maturation and function of erythrocytes, leukocytes and platelets. The pathogenic mechanisms as well as the peripheral blood and bone marrow findings in relation to leukocyte disorders will be covered. Study of the correlation of cytogenetic abnormalities to specific disorders will be emphasized. Prerequisites: concurrent enrollment in CLSC 4041 or consent of the instructor.

CLSC 4043. Cytogenetics Techniques. 4 Credit Hours.
This is an advanced laboratory course designed to cover all aspects of cytogenetic laboratory practice including specimen evaluation, culture initiation, culture maintenance, harvesting, staining, and banding techniques (conventional, GTG, QFQ, CBG, AgNOR, DA/DAPI, SCE, and FISH), banding pattern recognition, microscopic analysis, computer imaging, computer-assisted karyotyping and ISCN. Instrumentation, solution preparation, laboratory math, quality control, and regulatory issues will be emphasized. Prerequisites: CLSC 4041 or consent of the instructor.

CLSC 4044. Current Topics in Genetics. 1 Credit Hour.
This is an advanced seminar course that provides the student an opportunity to acquire knowledge of the latest developments in the field of human genetics with emphasis on the structure, behavior, and function of chromosomes as related to human diseases. Discussion sessions follow seminar presentation of critical literature reviews of a specific topic, current journal articles, or of individual research. Presenters will be drawn from the cytogenetics community of the Health Science Center and surrounding area. Each student is required to make a short presentation on a topic of interest selected with the aid of the coordinator. Prerequisites: CLSC 4041 or concurrent enrollment.

CLSC 4045. Clinical Cytogenetics Laboratory. 1. 5 Credit Hours.
Under the supervision and direction of a clinical instructor in a hospital or reference laboratory setting, the student will have the opportunity to extend their knowledge of principles and techniques of clinical cytogenetics which were presented in the didactic portion of the curriculum. The student will have the opportunity to gain experience with a wide variety of procedures which include culturing, harvesting, slide preparation, staining, and analyzing metaphases, with emphasis on the processing of peripheral blood samples. Clinical correlations of the chromosomal findings are included. Grades are based on laboratory performance and results achieved on written and/or practical examinations conducted at the particular clinical affiliate to which the student is assigned. Prerequisites: CLSC 4041, CLSC 4043, and CLSC 4042.
CLSC 4046. Clinical Cytogenetics Laboratory 2. 5 Credit Hours.  
Under the supervision and direction of a clinical instructor in a hospital or reference laboratory setting, the student will have the opportunity to extend their knowledge of principles and techniques of clinical cytogenetics that were presented in the didactic portion of the curriculum. The student will have the opportunity to gain experience with a wide variety of procedures which include culturing, harvesting, slide preparation, staining, and analyzing metaphases, with emphasis on the processing of amniotic fluid and chorionic villi samples. Clinical correlations of the chromosomal findings are included. Grades are based on laboratory performance and results achieved on written and/or practical examinations conducted at the particular clinical affiliate to which the student is assigned. Prerequisites: CLSC 4045.

CLSC 4047. Clinical Cytogenetics Laboratory 3. 5 Credit Hours.  
Under the supervision and direction of a clinical instructor in a hospital or reference laboratory setting, the student will have the opportunity to extend their knowledge of principles and techniques of clinical cytogenetics that were presented in the didactic portion of the curriculum. The student will have the opportunity to gain experience with a wide variety of procedures which include culturing, harvesting, slide preparation, staining, and analyzing metaphases, with emphasis on the processing of bone marrow and solid tumor samples. Clinical correlations of the chromosomal findings are included. Grades are based on laboratory performance and results achieved on written and/or practical examinations conducted at the particular clinical affiliate to which the student is assigned. Prerequisites: CLSC 4046.

CLSC 4048. Clinical Cytogenetics Laboratory 4. 5 Credit Hours.  
Under the supervision and direction of a clinical instructor in a hospital or reference laboratory setting, the student will have the opportunity to extend their knowledge of principles and techniques of clinical cytogenetics that were presented in the didactic portion of the curriculum. The student will have the opportunity to gain experience with a wide variety of procedures which include culturing, harvesting, slide preparation, staining, and analyzing metaphases, with emphasis on quality control, applications of FISH, molecular techniques and computer imaging. Clinical correlations of the chromosomal findings are included. Grades are based on laboratory performance and results achieved on written and/or practical examinations conducted at the particular clinical affiliate to which the student is assigned. Prerequisites: CLSC 4046.

CLSC 4049. Cytogenetics Lab Practices. 1.5 Credit Hour.  
An exploration of problem-solving processes and strategies for resolving difficult cases is the focus of this course. Students will be presented with the opportunity to integrate previously presented topics with experiences gained from clinical practicums. A thorough review of basic principles as applied in the clinical laboratory is included. Prerequisites: CLSC 4048 or consent of instructor.

CLSC 4050. Research In Cytogenetics. 1-5 Credit Hours.  
This is an advanced course that provides the student an opportunity to apply scientific method to a clinical laboratory research problem, demonstrate a systematic application of hypothesis formation, and decision-making through research design principles. Course evaluation is based upon performance on the term project. Requires consent of Program Director and Instructor. May be repeated for credit. Prerequisites: CLSC 4047.

CLSC 4053. Advanced Hematology. 2 Credit Hours.  
Using problem-based learning approach, this advanced course presents the pathogenic mechanisms of disorders involving erythrocytes, leukocytes, platelets, and coagulation factors. The methodology for detection of diseases of the blood and blood forming organs is examined. The peripheral blood and bone marrow findings in relation to various hematopoietic disease processes will be emphasized. Abnormalities of hemostatic mechanisms and their correlation with laboratory tests will be presented.

CLSC 4054. Advanced Hematology/Web-Based. 2 Credit Hours.  
This advanced course in hematology/hemostasis presents the pathogenic mechanisms of disorders involving erythrocytes, leukocytes, platelets, and coagulation factors. The methodology for detection of diseases of the blood and blood forming organs is examined with emphasis on the interpretation of the findings and determination of appropriate reflex testing. Morphologic changes in the peripheral blood and bone marrow will be emphasized. This is a Web-based course. Enrollment is open to clinical laboratory technicians/medical laboratory technicians or military-trained laboratory personnel who have been accepted into the CLS program or by special permission from the course director.

CLSC 4055. Advanced Immunohematology. 2 Credit Hours.  
This is a lecture course which uses case studies to emphasize theory and principles and develop problem solving skills. Major areas of focus include collection, processing and therapeutic use of blood components; investigation of autoantibodies and alloantibodies as detected in hemolytic disease of newborns, transfusion reactions, and autoimmune hemolytic anemias. The HLA system and applications in transplantation and paternity testing will also be discussed. One section of this course is in a distance-learning format offered via the Web. Students wanting to enroll in the Web section must receive permission from the instructor.

CLSC 4057. Hematology Practicum. 4 Credit Hours.  
Under the direction and supervision of a clinical instructor, the student will have the opportunity to gain expertise and confidence working in the clinical hematology section of the hospital laboratory. Students will be allowed to perform hematologic tests as well as “troubleshoot” automated cell counters. An opportunity to gain proficiency in morphologic evaluation of normal and abnormal cellular morphology, including peripheral blood and bone marrow examination, will be offered. The student will be introduced to the technology of flow cytometry and the immunologic study of disease states. Knowledge of internal and external quality control methods in the hematology laboratory will be emphasized. Students will also have the opportunity to learn the principles of interfacing laboratory instrumentation with the laboratory information system as well as the role of the LIS in test ordering, specimen processing, and reporting results.

CLSC 4058. Hematology Categorical Practicum. 6 Credit Hours.  
Under the direction and supervision of a clinical instructor, the student will have the opportunity to gain expertise working in the clinical hematology laboratory. Students will perform routine and special hematologic procedures, "troubleshoot" automated cell counters, and gain proficiency in morphologic evaluation of normal and abnormal cellular morphology, including peripheral blood and bone marrow examination. The student will be introduced to the technology of flow cytometry and immunologic study of disease states. In addition, the student will perform routine and special coagulation procedures and evaluate body fluids. Internal and external quality control methods in the hematology/coagulation laboratory will be emphasized. Phlebotomy techniques also will be practiced.
CLSC 4067. Immunohematology Practicum. 4 Credit Hours.
Under the supervision and direction of a clinical instructor in the hospital setting, the student will be given the opportunity to perform routine blood grouping and typing, compatibility testing, and donor unit processing. Experience in solving antibody problems, HLA testing, and preparing components will also be offered. Quality assurance procedures are practiced on a daily basis.

CLSC 4068. Immunohematology Categorical Practicum. 6 Credit Hours.
Under the supervision and direction of a clinical laboratory instructor, the student will have the opportunity to gain expertise in the various facets of clinical immunohematology. Areas emphasized include donor collection and processing, component preparation, routine grouping and typing, and compatibility testing. Students will have the opportunity to perform serologic testing for transfusion-transmitted disease. In addition, they will solve complex antibody problems and typing discrepancies using specialized techniques such as enzyme treatment, elution, and autoabsorption. Students will be required to perform HLA typing and investigate suspected cases of hemolytic disease of the newborn and transfusion reactions. Quality control procedures and records management for each area will be emphasized.

CLSC 4070. Immunology Practicum. 2 Credit Hours.
The student will be introduced to the technology of flow cytometry and the immunologic study of disease states. In the immunology/serology laboratory, the student will be required to perform routine testing of antigen/antibody reactions to help in the diagnosis of certain disease states.

CLSC 4083. Advanced Clinical Chemistry. 3 Credit Hours.
This is an advanced clinical lecture course emphasizing abnormalities in liver, cardiac, renal, and endocrine systems and their effect on chemical blood constituents. The theories and use of complex biochemical methodologies including immunochromatography results, electrophoresis, and chromatography will be discussed. One section of this course will be offered in a distance-learning format offered via the Web. Students wanting to enroll in the Web section must receive permission from the instructor.

CLSC 4087. Chemistry Practicum. 4 Credit Hours.
Under the supervision and direction of a clinical instructor in the hospital setting, the student will be introduced to the delivery of health care as it relates to the chemistry diagnostic laboratory. The student has the opportunity to gain exposure in toxicology, electrophoresis, immunochromatography, and special chemistry procedures including neonatal intensive care testing. The student will be given the opportunity to operate modern, state-of-the-art clinical laboratory equipment. Motor skills as well as interpretive skills will be stressed. Knowledge of internal and external quality control methods in the clinical chemistry laboratory will be emphasized.

CLSC 4088. Clinical Chemistry Categorical Practicum. 6 Credit Hours.
Under the supervision and direction of a clinical instructor in a hospital or reference laboratory setting, the student will have the opportunity to gain expertise and confidence working with automated clinical analyzers and performing esoteric clinical chemistry analyses. The student will have the opportunity to operate state-of-the-art, high-volume chemical analyzers, to observe preventive maintenance and troubleshooting procedures, and to gain firsthand experience with the recording and evaluation of quality control results. The student will perform highly specialized chemical analyses that may include serum protein electrophoresis, lipoprotein electrophoresis, toxicology screens, immunochromatography results, lecithin/sphingomyelin ratio for assessment of fetal lung maturity, blood gas analyses, and blood gas instrument troubleshooting procedures. The ability to organize work in a multitask environment will be emphasized. The student will be encouraged to present interesting and unusual case studies in an academic environment.

CLSC 4090. Management for Clinical Laboratory Sciences. 3 Credit Hours.
This course is designed to provide the student with the opportunity to develop entry-level management and supervisory skills. Topics include principles of communication; group dynamics; leadership styles; interviewing; planning; financial analysis; and policies, procedures, and regulations. Developing and designing presentations; learning principles, objectives and use of audiovisual aids; and design and evaluation of research projects are discussed. Other timely topics in health care may be considered. This is a Web-based course and enrollment is open to clinical laboratory technicians or military-trained personnel who have been accepted into the CLS program, or by special permission from the course director.

CLSC 4091. Independent Study. 1-12 Credit Hours.
A plan of study is determined by the supervising faculty. The participating student and supervising faculty develop the course requirements and forms of evaluation. Credit hours are determined by the scope of the project.

CLSC 4095. Management. 2.5 Credit Hours.
This course is designed to present the principles of group dynamics, human resources management, and financial analysis to students in laboratory medicine. Topics include leadership style, staffing, and laboratory information systems (data management, analysis, selection). Writing resumes and laboratory procedures and developing job performance criteria are included. Interviewing techniques and performance evaluations are practiced. Current issues in managed care including outcomes assessment, evidence-based medicine, infection control, CLIA regulations, point of care testing, onsite surveys of the laboratory and medical necessity are discussed.

CLSC 4101. Honors CLS Course. 2.5-5 Credit Hours.
This is an elective course for students who want to study a CLS discipline in more depth or breadth, participate in a research project, study a professional issue, or work on a laboratory-related problem. This course is open only to students who have the permission of the Department Chair, are in good standing in the CLS Program, have a minimum GPA of 2.5, and a letter of recommendation from a CLS faculty member. The student is responsible for selecting an area of interest and securing the approval of a faculty mentor who will supervise the student’s work.
CLSC 4102. Honors CLS Practicum. 1-5 Credit Hours.
This elective course is for students who are interested in completing clinical practicums in specialized areas not included in the required clinical practicums. This may include laboratory management, molecular diagnostics, virology, etc. Certified clinical laboratory technicians who have extensive experience in the laboratory and who have completed the objectives of required practicums may choose to enroll in this practicum. A special clinical experience in the South Texas Environmental Education and Research (STEER) Program may be available to select students. This program is open to sophomores and juniors as well as seniors. The STEER Program is five weeks long and takes place in Laredo, Texas. Housing is provided. To enroll in this course, students must have the permission of the Department Chair, a minimum 2.5 GPA, and letters of recommendation from two faculty members. The student must be in good standing in all coursework. In addition, to enroll in the STEER Program, students must apply, be accepted, and complete a one-page statement of interest.

CLSC 4190. Research. 1 Credit Hour.
This course is an introduction to the components of medical research, the different types of clinical research trials, the purpose of the institutional review board and the informed consent procedure. Characteristics of the ethical researcher will be described. An overview of appropriate research design and data collection, sample size determination, and statistical evaluation of the results will be discussed. Students will have the opportunity to develop group research projects, write a proposal, develop a PowerPoint presentation, and present the proposal to faculty and students.

CLSC 5007. Toxicology Practicum. 5 Credit Hours.
This is a one-semester rotation through different types of toxicology laboratories including medical examiners, clinical, and drug testing. Practicums will be supervised by faculty.

CLSC 5014. Principles and Applications in Analytical Toxicology. 5.5 Credit Hours.
This course will concentrate on major topical areas of toxicology including: mechanisms of toxicity including mutagenicity, teratogenicity, and carcinogenicity; mechanisms of systemic toxicity and damage to specific organ systems; chemical and biochemical analytical techniques including non-instrumental methods such as microdiffusion and instrumental methods such as HPLC and GC/MS; and toxicology of toxins, toxicants, narcotics, organic solvents, and other classes of materials. Case studies will be used to develop skills in the application of concepts and principles.

CLSC 5017. Toxicology Seminar. 1 Credit Hour.
This course includes formal exchange of scientific information and ideas through presentations from recent scientific literature and from faculty and student research.

CLSC 5018. Medical and Forensic Toxicology. 5.5 Credit Hours.
This course includes an introduction to types and uses of evidence, investigations, and the legal requirements in dealing with physical evidence. Areas such as clinical toxicology, forensic toxicology, and forensic pathology will be included. Using a case-study format, the course will also concentrate on specific topics within toxicology including natural toxins, drugs of abuse, psychotropics, industrial chemical disasters, and poison management. Requirements for toxicology laboratory certification and design will be included. Selected topics may include laboratory demonstration.

CLSC 5020. Applied Toxicology. 2 Credit Hours.
This course is designed to complement courses CLSC 5014 and CLSC 5018. Under supervision of the program director and toxicologists from various areas of the discipline, the student will apply her/his knowledge of toxicology and forensic science to solving cases in emergency and forensic cases. Permission is required.

CLSC 5040. Laboratory Medicine. 3 Credit Hours.
This course is offered to students in the Physician Assistant Studies Program at the Health Science Center. The course is designed to provide the student with the opportunity to gain information on the profession of CLS including history and job characteristics. Relationships between abnormal physiology and laboratory testing will be emphasized. Basic lab and math statistics will be taught. Part of the course is Web-based.

CLSC 5041. Laboratory Medicine Lab. 1 Credit Hour.
This course is offered to students in the Physician Assistant Studies Program. This is a laboratory course that provides the student with hands-on experience in performing common physician office laboratory procedures. Case studies are used to help students interpret and use laboratory test results.

CLSC 5085. Organ System Biochemistry. 3 Credit Hours.
This course takes an organ systems approach to the biochemical processes that occur in the human body. The course will cover the major biochemical mechanisms that operate in all human tissues, the characteristic biochemical processes that occur in each major organ system, and the biochemical interrelationship between the major organ systems. Permission is required.

CLSC 5090. Independent Study In Clinical Laboratory Studies. 1-4 Credit Hours.
This course allows for in-depth study in a specific topic area. Topics and method of study are agreed upon by instructor and student. The course may be repeated for credit when topics vary.

CLSC 6097. Research. 3 Credit Hours.
This course consists of supervised research under direction of faculty.

CLSC 6098. Thesis. 3 Credit Hours.
Instruction in the preparation of a thesis from the results of the research performed in CLSC 6097. Registration is required for at least one term for the MS candidate enrolled in CLSC 6097. Admission to candidacy for the Master of Science degree is required.
Community Dentistry (COMD)

Courses

COMD 5017. Oral Health Promotion & Disease Prevention For Individuals & Populations. 1.5 Credit Hour.
Ooral health has been reported to influence overall health and well-being of individuals and communities in the USA and across the world. This course provides the DS1 student with the basis and application of evidence-based practices to prevent oral diseases and promote oral health among individual patients and groups living in communities. The first part of the course focuses on Oral Health by concentrating on dental public health principles and epidemiology. The course stresses determinants of oral health and methods to reduce disparities. It examines contemporary oral health promotion and oral disease prevention at the community level. The second part of the course describes the Prevention of Oral Diseases for the Individual Patient, using a systematic approach of risk-based prevention. The course reviews the methodology to assess risks for dental carries, periodontal diseases, and oral cancer at the individual level. Students will have the opportunity to learn to develop and apply plans of prevention for oral diseases based upon individual risks, accounting for biological, social, and behavioral factors. The course integrates patient education and counseling practices as a component of individualized prevention practice.

COMD 5031. Introduction To Professional Ethics. 0.5 Credit Hours.
This course will introduce students to ethics, how ethical principles apply to dentists, and the professional obligations inherent in the dentist-patient relationship. It will additionally provide insight in how the individual student views the dental profession and provide a decision-making model to help guide their actions when faced with ethical dilemmas.

COMD 5046. Cariology. 1 Credit Hour.
This course covers the scientific background of the etiology, treatment, and prevention of dental carries, as well as dental erosion. It offers an overview of the biological and mineralogical etiology of dental carries and dental erosion.

COMD 6025. Nutrition. 0.5 Credit Hours.
Elements of nutrition are presented in a lecture series. Special attention is given to those aspects of nutrition that relate to dental health and the prevention of dental diseases.

COMD 6048. Patient-Centered Oral Health Care: Behavioral, Social, & Cultural Dimensions. 1 Credit Hour.
This course discusses key dimensions of patient-centered clinical care recommended by the Institute of Medicine: a) respect for the patient’s values, preferences, and expressed needs; b) information and education; c) access to care; d) emotional support to relieve fear and anxiety; e) involvement of family and friends; f) continuity and secure transition between health care settings; g) physical comfort; and h) coordination of care. This course focuses on caring for patients and understanding the contexts of their culture, family, and community. The course examines major health belief systems embraced by people from diverse cultures and explores the characteristics of health-illness beliefs and practices. Also, the course provides an overview of anxiety and fear in dentistry. Specifically, the course reviews the typical causes of dental fear, assessment of fear, and effective strategies for reducing fear and anxiety. Psychological approaches for working with patients with needle phobias, gagging, and panic are described in the course. The course emphasizes the development of competence of oral health professionals in instituting patient-centered and culturally relevant oral health care.

COMD 7031. Professional Ethics. 0.5 Credit Hours.
This course provides a deeper understanding of the role that ethics plays in dental practice through a series of small-group discussions focused on the resolution of ethical dilemmas. It also provides a more thorough appreciation of the ethical principles and theory of normative ethics, as well as an understanding of the importance of dental research ethics, the role of ethics in the “business” of dentistry, and dentist’s role in addressing social justice issues.

COMD 7050. Preventive Dentistry Clinic. 1.5 Credit Hour.
As part of the junior clinic, this course is for the clinical application of prior study of Preventive & Community Dentistry, Preventive Methods, Nutrition, Cariology, Caries Risk Management, and Sophomore Clinic. With the emphasis on dental carries, it also includes prevention of gingivitis, oral cancer, and orofacial trauma. Students record preventive history, diagnosis and document carries, request appropriate lab and dietary assessments, carry out a carries activity (risk) assessment, write a preventive plan, and evaluate outcomes.

COMD 8014. Oral Health Care System. 1 Credit Hour.
A series of lectures and panel discussions introduce students to the structure as well as methods of financing dental care. Concepts of both traditional and recently evolved forms of dental practice also are discussed.

COMD 8032. Jurisprudence. 0.5 Credit Hours.
An in-depth review of the Texas Dental Practice Act and the Rules and Regulations of the Texas State Board of Dental Examiners will be discussed.

Deaf Educ & Hearing Science (DEHS)

Courses

DEHS 5001. Foundations of Ed for the Deaf. 2.5 Credit Hours.
History of the education of the hearing impaired including Deaf Culture and American Sign Language (ASL). Impact of hearing loss on academic access, vocational choice, and personal development. Current trends in academic programming, parent-infant through college, and provisions for multicultural populations.

DEHS 5003. Speech Mech-Anatomy/Physiology/Acoustics. 2.5 Credit Hours.
This course is a study of the component parts of the speech mechanisms and their coordination to permit functional speech, physiology and acoustics of speech, impact of hearing loss on development and maintenance of functional speech skills, and individual assessment procedures. Practicum included.

DEHS 5005. Factors In Child Language Acquisition. 2.5 Credit Hours.
Course content includes the normal progression of language, cognition and social development, and how hearing loss impacts on development; an overview of acquisition of language by children who may have more than one handicapping condition; the nature of bilingual and ESL language learning in relation to hearing loss, including the impact of visual language learning through speech reading and signing systems; and the nature of language development as related to learning theories, communicative functions, and culture. Practicum included.
DEHS 5007. Introduction to Audiology. 3 Credit Hours.
Nature of sound, anatomy, and physiology of hearing; types of testing for hearing loss; analysis of audiograms; fitting of ear molds; operation and design of hearing aids; use and maintenance of FM units; and Cochlear implants and assistive technology. Practicum included.

DEHS 5009. Intro Sign-ASL & Signed English. 2.5 Credit Hours.
This course is a study of the evolution of the various forms of manual communication, review of options available in Texas public schools, and implications of American Sign Language as a first language.

DEHS 5011. Language Development. 3 Credit Hours.
Course content includes the assessment of present language and listening levels in hearing impaired children and methods of aural habilitation and language instruction/therapy. Practicum included.

DEHS 5021. Teaching/Management Apprenticeship 1. 4 Credit Hours.
Students spend time in the education and management/coordination of services for the hearing impaired. Students spend time teaching both hearing and hearing-impaired students and in managing and coordinating social, education, and health services for the hearing impaired. Course fees: Practicum $10.

DEHS 5090. Independent Study. 0.5-4 Credit Hours.
This course will be arranged through DEHS faculty. Topic and mode of study are agreed upon by student and instructor. Semester hours are variable and credit hours will be determined per topic. The course is offered any term. The course may be repeated for credit when topics vary.

DEHS 6002. Comp Assessment, Counseling, Management. 1.5 Credit Hour.
The impact of a hearing loss upon the child, the family, and the community; reactions and adjustments identified and evaluated; delivery of services from birth through adulthood; and newborn screening are included. Crisis periods are identified and coping mechanisms evaluated. Also included are the role of classroom teacher and health professional in providing support to the family, and a multi-professional team approach to long-term management for the hearing impaired.

DEHS 6004. Curriculum Mod-Child W/Hear Loss. 2.5 Credit Hours.
Course content includes the development and adaptation of curricular materials and instructional procedures for the child with hearing impairment; selection and writing of objectives for speech, language, and listening within the content of early childhood education best practices; impact of current research in the effective teaching of reading and the language arts for children with hearing loss, including the identification of techniques and materials useful in meeting the individual needs of each student. Students will have the opportunity to learn adaptive strategies to address the needs of students with multiple handicaps. Practicum included.

DEHS 6006. Best Practices in Early Intervention. 2.5 Credit Hours.
Provision of services to infants, toddlers and preschoolers and their families through public and private agencies. Use of the Auditory-Verbal Therapy approach emphasizing the development of optimum listening skills in children with hearing impairment and the recognition of caregivers as the primary models of spoken language. Includes parent guidance, counseling, education and support. Practicum is included.

DEHS 6008. Speech for Hearing Impaired Student. 2.5 Credit Hours.
This course addresses: specific development and remedial techniques for articulation therapy; assessment of phonetic and phonologic level skills; strategies for elicitation, development; transfer and maintenance of all English phonemes and suprasegmentals; and choosing techniques appropriate to auditory/visual/tactile modalities available to the child with hearing loss. Practicum included.

DEHS 6009. Aural (Re) Habilitation. 2.5 Credit Hours.
This course is designed to study methods of pediatrics aural rehabilitation available for children with hearing loss and the impact of new technologies on therapy and teaching.

DEHS 6010. Mainstream Services for Children with Hearing Loss. 1.5 Credit Hour.
Management of resource and mainstream services in school settings. Logistical considerations in grouping, teacher placement, and the development of individualized educational plans combining language/speech/listening consideration with academic instruction. Development of consultative style of interaction with regular education personnel.

DEHS 6022. Teaching/Management Apprenticeship 2. 4 Credit Hours.
Continuation of Teaching/Management Apprenticeship I. Students will be required to develop a comprehensive portfolio of their experiences and abilities. Outcomes of their knowledge and skills gained in the program are emphasized. Course fees: Practicum $10.

DEHS 6099. Comprehensive Examination. Credit Hours.
The comprehensive examination is required prior to graduation. The examination, which incorporates all critical elements of the curriculum, tests for mastery of knowledge as well as professional skills.

Dental Diagnostic Science (DIAG)

DIAG Courses

DIAG 5007. Graduate OMR Clinic. 3 Credit Hours.
The Graduate Radiology Clinic is in operation five full days per week. Services include intra- and extra-oral radiography, panoramic, cephalometric, linear, and multi-directional tomography; sialography; arthrography; CT image processing; and planned CT image acquisition.

DIAG 5009. Introduction To Dental Radiology. 1 Credit Hour.
This course provides students with an opportunity to learn the special terminology associated with dental radiography in addition to theoretical principles of intraoral radiography. Students will have the opportunity to develop preclinical technical skills in placing, exposing, processing, and mounting dental radiographs using a technique mannequin (DXTTR), and as technology permits, preliminary experiences using digital imaging technology and the photostimulable phosphor system (PSP). Students will also have the opportunity to gain preliminary experience in the assessment of radiographs for normal anatomic structures, radiographic technique errors, caries, periodontal disease, and other common dental anomalies.

DIAG 5012. Introduction To Graduate Clinic. 1 Credit Hour.
This course is an introduction to the principles and practices of radiology report writing. It will include sections on software utilization, report writing, implant diagnosis and reporting, TMJ diagnosis and reporting. In addition, student will be mentored by upperclassmen on the mechanics of operating the radiological devices owned and operated by the graduate OMFR clinic.

DIAG 5014. Physical Evaluation 1. 1.5 Credit Hour.
This course is intended to afford students maximal opportunity to recognize the relevance of basic biomedical sciences to the study of the patient and to provide the fabric for the accumulation of knowledge, skills, and values essential to initiate the clinical process. It includes didactic and clinical experience in obtaining and interpreting a patient history; extraoral and intraoral physical examination procedures; and interpretation of the findings of the examination.
DIAG 5015. Panoramic Radiology. 1 Credit Hour.
This lecture course includes topics such as the principles of panoramic radiology, concepts of panoramic image formation, review of anatomic structures, clinical techniques, and recognition and correction of panoramic errors. Also, the uses and limitations of panoramic radiology as well as digital panoramic radiology will be discussed. The goal is to achieve competency in this subject matter. Proficiency will be achieved during clinical rotations in panoramic radiology as part of the graduate OMR clinic experience.

DIAG 5016. Head & Neck Anatomy. 1 Credit Hour.
This review course is designed to provide the resident with the opportunity to acquire an anatomical foundation for oral and maxillofacial radiology. The course uses interactive computer-based head and neck clinical anatomy software as well as digital libraries of radiographic and cross-sectional anatomical specimens. Numerous Internet-based references are also used to provide the student with the most up-to-date and graphic information. Clinical anatomic information is correlated with plain film, CT, and MRI images to provide a contextual reference between clinical and radiographic anatomy. Written and oral examinations are given to assess competency in this area.

DIAG 5017. Literature Review. 1 Credit Hour.
Each week a topic in Oral and Maxillofacial radiology is discussed. In addition, students receive a block of instruction in evidence-based literature evaluation. At each session a student leader presents from 2-4 papers that meet the current topic. Articles are approved by the course director beforehand for scientific accuracy, validity, and relevance. Students are expected to read the articles before the session and participate in the group discussion. Discussion is facilitated by a question and response format led by the course director. Literature from past reviews is filed for student reference.

DIAG 5018. Practicum In Oral Medicine. 4 Credit Hours.
Practice in clinical skills required for diagnosis, management, and treatment of oral and perioral diseases, including such special procedures as sialography, cytological smearing, biopsy, and culture taking is offered. A comprehensive review of the conditions that the dentist may be called upon to diagnose and treat as the result of the physical examination of the patient is the focus of this course. Topics include extroral findings such as general appearance of the hands, eyes, ears, nose and neck; intraoral findings such as lesions as in lip swelling or palatal swelling; and color changes, surface changes, and other problems such as pain and functional disorders.

DIAG 5019. Digital Imaging. 1 Credit Hour.
This survey course is designed to give the maxillofacial radiology resident the opportunity to gain a basic understanding of digital imaging. The course utilizes classroom lectures as well as computer laboratory exercises to demonstrate the application of digital imaging in a clinical setting. The course covers all aspects of digital imaging including: fundamental basis for digital imaging, image enhancement and restoration, image analysis, image compression, image synthesis, and image display. The course also covers specific information related to digital imaging modalities such as computed tomography, magnetic resonance imaging, ultrasound, and dental digital radiography.

DIAG 5026. Diagnostic Imaging Of The Jaws Part 1. 2 Credit Hours.
The goal of this class is to achieve competency regarding the interpretation of plain and advanced images of hard and soft tissue conditions affecting the teeth, jaws, and surrounding structures of the maxillofacial complex including, but not limited to, the paranasal sinuses, salivary glands, and trauma. The material is presented and repeated through three basic formats: by pattern recognition, by disease process, and as further analyzed using contrast studies, CT, MR, nuclear scans, and ultrasound images where applicable. This course forms the basis for more advanced seminar and clinical courses through which proficiency is required to be achieved.

DIAG 5027. Advanced Radiation Physics. 1 Credit Hour.
This course presents the advanced principles of radiation physics as they apply to medical and dental diagnostic radiology. Topics include the nature and production of X-rays, interactions of X-rays with matter, the physics of films and intensifying screens, the nature of the radiographic image, fundamentals of radiation protection, principles of tomography, and panoramic radiography.

DIAG 5028. Advanced Radiation Physics Lab. 0.5 Credit Hours.
This laboratory is given in conjunction with DIAG 5027 Advanced Radiation Physics. Students will be given the opportunity to perform laboratory assignments designed to further their understanding of the practical applications of the principles of advanced radiation physics.

DIAG 5036. Diagnostic Imaging Of Jaws Pt. 2. 2 Credit Hours.
This course building on DIAG 5026 Diagnostic Imaging of the Jaws Part 1. The goal of this class is to achieve competency regarding the interpretation of plain and advanced images of hard and soft tissue conditions affecting the teeth, jaws, and surrounding structures of the maxillofacial complex including, but not limited to, the paranasal sinuses, salivary glands, and trauma. The material is presented and repeated through three basic formats: by pattern recognition, by disease process, and as further analyzed using contrast students, CT, MR, nuclear scans, and ultrasound images where applicable. This course forms the basis for more advanced seminar and clinical courses through which proficiency is required to be achieved.

DIAG 5037. Oral And Maxillofacial Radiology Interpretation 1. 1 Credit Hour.
The overall purpose of this course is to provide students with learning experiences that will give them the opportunity to develop proficiency in OMR image analysis and interpretation. This course meets in one-hour sessions with a seminar or grand rounds format. Each week, students receive cases and are requested to generate a written report and present the case to other students and faculty. Cases include a variety of diagnoses that comprise the field of oral and maxillofacial radiology including both typical and unusual examples. Additionally, high-quality, properly exposed images are supplied. Many examples include plain film, CT, and MR for the same case. Additional cases include other imaging modalities such as tomograms, contrast studies, and nuclear scans. In some instances, glass slides and a microscope are used to correlate histological features with MR images, an activity much requested by students. Imaging particular to salivary gland disease and TMJ disorders will also be emphasized. Students will record these cases in a special section of their logbook and may, circumstances permitting, copy the cases for future reference or teaching. The course director's collection of cases is one of the most extensive and is broadly representative and thus guarantees the student exposure to a variety of clinical cases which cannot be assured through the various clinical experiences during the time frame of the program.
DIAG 5040. Basic Principles Of Oral And Maxillofacial Imaging. 2 Credit Hours.
This is a didactic and clinical course aimed at providing oral and maxillofacial radiology residents with basic knowledge of oral and maxillofacial radiographic anatomy and helps the residents develop proficiency in routine and special OMF imaging procedures. The course consists of a complete review of plain film techniques used in OMF radiography and hands-on imaging exercises with radiographic phantoms. The radiographic anatomy displayed on these projections will be reviewed in lecture and exercise format using the practice phantom films and radiographic anatomy review sets. Bone anatomy and organ-based anatomy will be reviewed.

DIAG 5044. Radiation Physics Lab. 0.5 Credit Hours.
This laboratory is given in conjunction with DIAG 5045 Radiation Physics. Students will be given the opportunity to perform laboratory assignments designed to further their understanding of the practical applications of the principles of radiation physics.

DIAG 5045. Radiation Physics. 1 Credit Hour.
This introductory course presents the fundamental principles of radiation physics as they apply to medical and dental diagnostic radiology. Topics include the nature and production of X-rays, interactions of X-rays with matter, the physics of films and intensifying screens, the nature of the radiographic image, fundamentals of radiation protection, principles of tomography, and panoramic radiography.

DIAG 5049. Practical Infection Control. 1 Credit Hour.
This course provides students with an opportunity to learn the special terminology associated with dental radiography in addition to theoretical principles of intraoral radiography. Students will have the opportunity to develop preclinical technical skills in placing, exposing, processing, and mounting dental radiographs using a technique mannequin (DXTTR), and as technology permits, preliminary experiences using digital imaging technology and the photostimulable phosphor system (PSP). Students will also have the opportunity to gain preliminary experience in the assessment of radiographs for normal anatomic structures, radiographic technique errors, caries, periodontal disease, and other common dental anomalies.

DIAG 5050. Fundamentals of Dental Radiography. 1 Credit Hour.
This lecture course reviews the basics of diagnostic radiography and introduces the latest techniques. Review includes sessions on exposure factors, projection techniques, film processing, and radiation protection. The major extraoral technique stressed in the course is panoramic radiography, including normal anatomy, technique errors, and interpretation. Skull projections are reviewed and basic principles and indications of special techniques such as xeroradiography, CT, nuclear medicine, and others are presented as time allows.

DIAG 5070. Supervised Teaching. 1 Credit Hour.
Graduate students are assigned to the various clinics, laboratories, and classes for the opportunity to acquire experience in teaching undergraduate students in a variety of situations. Supervision and evaluation of teaching performance is provided by the graduate faculty.

DIAG 5091. Case Conference. 1 Credit Hour.
This course meets weekly and serves as a venue for students to plan and present their cases to other students and faculty, and supply follow-up information where feasible.

DIAG 5092. Diag Science Seminar. 1 Credit Hour.
The format of this course includes presentations, reviews, and discussions of current cases from the Dental Diagnostic Science Clinic as well as cases of interest from the teaching file.

DIAG 5093. Diag Science Seminar. 1 Credit Hour.
The format of this course includes presentations, reviews, and discussions of current cases from the Dental Diagnostic Science Clinic as well as cases of interest from the teaching file.

DIAG 5181. Principles Forensic Odontology. 1 Credit Hour.
A didactic course covering such topics as forensic photography, forensic radiology, dental identification, mass disaster techniques, bite mark analysis, child abuse, and courtroom protocol. Students will be encouraged to investigate specific areas in more detail. (This course is an elective for the MS degree.).

DIAG 6005. Clinical Path Conference. 1 Credit Hour.
Formal review of clinical, radiographic, and histopathologic presentations of various conditions affecting the head and neck area and the oral cavity, in particular, is presented. A variety of cases are presented for group discussion with a view toward obtaining a differential diagnosis.

DIAG 6007. Graduate Oral And Maxillofacial Clinic. 3 Credit Hours.
The Graduate Radiology Clinic is in operation five full days per week. Services include intra- and extra-oral radiography, panoramic, cephalometric, linear, and multi-directional tomography; sialography; arthrography; CT image processing; and planned CT image acquisition.

DIAG 6008. Orofacial Pain. 2 Credit Hours.
This course is designed to introduce the student to the field of orofacial pain. The course objectives include: introduction to orofacial pain, assessment of orofacial pain disorders, diagnostic classification of orofacial pain disorders, differential diagnosis and management of vascular intracranial disorders, differential diagnosis and management of neuralgias, nerve trunk pain and deafferentation pain, differential diagnosis and management of intratraural pain, differential diagnosis and management of temporomandibular disorders, and differential diagnosis and management of mental disorders.

DIAG 6009. Noninfectious Diseases/Oral Mucosa. 2 Credit Hours.
This course is designed to discuss a selected group of diseases of the oral mucosa with the primary purpose of presenting diagnostic and therapeutic guidelines. The role of oral medicine specialists in the care of noninfectious oral mucosal diseases, appropriate (e.g., timely and accurate) consultations/referral, definitive therapy, clinical review (e.g., the disease and/or side-effects of theory), disease prevention, and counseling of patients and relatives will be discussed.

DIAG 6011. Clinical Medicine. 2 Credit Hours.
Today's clinician must treat more medically and pharmacologically compromised patients than ever before. It is axiomatic that they must have a basic understanding of diseases throughout the body. Such an obligation is tempered by the extent to which a disease or illness affects the physical and emotional ability of the patient to undergo and respond to dental care. Finally, such an obligation is further influenced by the extent to which a condition (infectious disease) may impact on the well being of the oral health care provider. The course is based on the prevalent medical diagnoses suggested by the top 200 drugs dispensed by U.S. community pharmacies. It is designed to present the pathophysiology of disease states of special interest, the principles of current and accepted medical and/or pharmacological management of these conditions, and the clinical consequences of disease and illness in the oral health-care setting.

DIAG 6016. Pharmacotherapeutics. 1 Credit Hour.
This course is designed to review general principles of pharmacology; current and accepted pharmacotherapy for the medical management of pain, infection, and selected systemic diseases; and associated adverse drug events. It is based on the top 200 drugs dispensed by U.S. community pharmacies for the prevention, diagnosis, and/or treatment of disease with special reference to dentistry.
DIAG 6017. Literature Review. 1 Credit Hour.
Each week a topic in Oral and Maxillofacial radiology is discussed. In addition, students receive a block of instruction in evidence-based literature evaluation. At each session, a student leader presents from 2-4 papers that meet the current topic. Articles are approved beforehand by the course director, for scientific accuracy, validity, and relevance. Students are expected to read the articles before the session and participate in the group discussion. Discussion is facilitated by a question and response format led by the course director. Literature from past reviews is filed for student reference.

DIAG 6018. OMR Case Conference. 1 Credit Hour.
This course meets weekly and serves as a venue for students to plan and present their cases to other students and faculty, and supply follow-up information where feasible.

DIAG 6019. Chemosensory Disorders/Salivary Gland Dysfunctions. 2 Credit Hours.
Chemosensory disorders affect in particular disproportionately a large segment of the elderly population, the fastest growing segment of the western industrialized nation. Also saliva plays a major role in the preservation and protection of the oral and pharyngeal tissues. When salivary gland function is altered, multiple stomatologic and systemic disorders can develop. This graduate level elective course is designed to make the graduate student (oral medicine) aware of the etiology, prevalence and mechanisms of normal and diseased chemosensation and salivary gland functions of the oral cavity. Its focus will be on the diagnosis and management of patients with taste, smell and salivary gland dysfunctions.

DIAG 6020. Tumor Board. 1 Credit Hour.
The class meets for one hour once a week at the MARC buiding and is sponsored by the Department of Otolaryngology and Head and Neck Surgery. Students will have the opportunity to learn case management and prognosis of patients with oral and maxillofacial and head and neck tumors, exposure to the diagnostic imaging work-up of the patients presented, interact with attending medical and dental specialists, attend special seminars related to tumor board, and have an opportunity to interact with various medical residents for further learning opportunities. Students are expected to share some of their learning experiences and present cases during case conferences to other OMR program venues such as graduate clinic.

DIAG 6021. Medical Radiology Rotation. 2 Credit Hours.
Medical radiology training occurs within the dental school using image-acquired data from a medical clinic. It also occurs in the University Hospital, at Wilford Hall Medical Center at nearby Lackland Air Force Base, and in a private radiology clinic. Cases using advanced imaging are available in the program director’s extensive collection to further enhance medical radiology training. A minimum of 7.5 semester credit hours are required. Each student must enroll in a minimum of three one-month rotations.

DIAG 6022. Practicum In Oral Medicine. 6 Credit Hours.
Practice in clinical skills required for diagnosis, management, and treatment of oral and perioral diseases, including such special procedures as sialography, cytological smearing, biopsy, and culture taking is offered. The focus of this course is a comprehensive review of the conditions that the dentist may be called upon to diagnose and treat as the result of the physical examination of the patient. Topics include extraoral findings such as general appearance of the hands, eyes, ears, nose and neck; intraoral findings such as lesions in lip swelling or palatal swelling; and color changes, surface changes, and other problems such as pain and functional disorders.

DIAG 6025. Diagnostic Imaging Of The Head And Neck Pt. I. 2 Credit Hours.
The goal of this course is to achieve competency regarding the interpretation of plain and advanced images of hard- and soft-tissue conditions affecting the teeth, jaws and surrounding structures of the maxillofacial complex including, but not limited to, the paranasal sinuses, salivary glands, and trauma. The material is present and repeated through three basic formats: by pattern recognition, by disease process, and as further analyzed using contrast students, CT, MR, nuclear scans and ultrasound images where applicable. This course forms the basis for more advanced seminar and clinical courses through which proficiency is required to be achieved.

DIAG 6027. Advanced Imaging Technology. 2 Credit Hours.
This course is a continuation of the Radiation Physics courses that are given during the first year of graduate studies. This course will provide the student with the opportunity to achieve a proficiency level understanding of the physical principles of all the advanced imaging methods and techniques (i.e., computed tomography), magnetic resonance imaging, ultrasound and radionuclide imaging commonly used in medical care, and understanding of the clinical applications of these advanced imaging modalities.

DIAG 6035. Physical Evaluation 2. 1.5 Credit Hour.
The importance of an accurate diagnosis and patient evaluation upon which to base a rational treatment plan is the emphasis of this course. Lectures on types of clinical exams, chief complaint, and clinical and medical history are presented. Study of the normal appearance and presentation of abnormalities and disease as they relate to various areas of the oral cavity is also included, with special emphasis on the soft tissues. Methodology in diagnosis includes case history, general and oral clinical laboratory, and other supplementary examinations. The rationale of when to prescribe dental radiographs is presented. Factors affecting treatment plans, with emphasis on medical compromises, are also presented.

DIAG 6041. Basic Radiation Biology. 1 Credit Hour.
An introductory course in the basic concepts of radiation biology, this course is appropriate for dentists desiring an opportunity to gain additional knowledge of the biological effects of diagnostic and therapeutic levels of x-radiation. Concepts of designing an office for optimum radiation protection also are presented.

DIAG 6043. Advanced Radiation Biology. 1 Credit Hour.
An in-depth study of radiation biology is presented, emphasizing such topics as radiation risk, dosimetry, theories of radiation damage, radiation hygiene and protection, and the effects of therapeutic levels of radiation on the oral tissues.

DIAG 6045. American Board of OM Radiology Preparation. 2 Credit Hours.
The purpose of this course is to prepared 3rd year oral and maxillofacial radiology residents for taking the American Board of Oral and Maxillofacial Radiology exam and gives an overview of exam expectations. The format of the course will reflect the same formatting and style of the National board examination: an oral and a written examination dealing with radiation physics, radiation biology and protection, and imaging techniques. The student will interpret various images and write radiographic reports for a number of cases.
DIAG 6049. Oral And Maxillofacial Radiology Interpretation 2. 1 Credit Hour.
The overall purpose of this course is to provide students with learning experiences that will give them the opportunity to develop proficiency in OMR image analysis and interpretation. This course meets in one-hour sessions with a seminar or grand rounds format. Each week, students receive cases and are requested to generate a written report and present the case to other students and faculty. Cases include a variety of diagnoses that comprise the field of oral and maxillofacial radiology including both typical and unusual examples. Additionally, high-quality, properly exposed images are supplied. Many examples include plain film, CT, and MR for the same case. Additional cases include other imaging modalities such as tomograms, contrast studies, and nuclear scans. In some instances, glass slides and a microscope are used to correlate histological features with MR images, an activity much requested by students. Imaging particular to salivary gland disease and TMJ disorders will also be emphasized. Students will record these cases in a special section of their logbook and may, circumstances permitting, copy the cases for future reference or teaching. The course director’s collection of cases is one of the most extensive and is broadly representative and thus guarantees the student exposure to a variety of clinical cases which cannot be assured through the various clinical experiences during the time frame of the program.

DIAG 6051. Oral And Maxillofacial Radiology Interpretation 3. 1 Credit Hour.
The overall purpose of this course is to provide students with learning experiences that will give them the opportunity to develop proficiency in OMR image analysis and interpretation. Students receive cases and are requested to generate a written report and present the case to other students and faculty. Cases include a variety of diagnoses that comprise the field of oral and maxillofacial radiology including both typical and unusual examples. Additionally, high-quality, properly exposed images are supplied. Many examples include plain film, CT, and MR for the same case. Additional cases include other imaging modalities such as tomograms, contrast studies, and nuclear scans. In some instances, glass slides and a microscope are used to correlate histological features with MR images, an activity much requested by students. Imaging particular to salivary gland disease and TMJ disorders will also be emphasized. Students will record these cases in a special section of their logbook and may, circumstances permitting, copy the cases for future reference or teaching. The course director’s collection of cases is one of the most extensive and is broadly representative and thus guarantees the student exposure to a variety of clinical cases which cannot be assured through the various clinical experiences during the time frame of the program.

DIAG 6068. Diagnostic Imaging Of The Head And Neck Pt. 2. 2 Credit Hours.
This course builds on DIAG 6025 Diagnostic Imaging of the Head and Neck Part 1. The goal of this course is to achieve competency regarding the interpretation of plain and advanced images of hard- and soft-tissue conditions affecting the teeth, jaws, and surrounding structures of the maxillofacial complex including, but not limited to, the paranasal sinuses, salivary glands, and trauma. The material is presented and repeated through three basic formats: by pattern recognition, by disease process, and as further analyzed using contrast studies, CT, MR, nuclear scans, and ultrasound images where applicable. This course forms the basis for more advanced seminar and clinical courses through which proficiency is required to be achieved.

DIAG 6071. Supervised Teaching. 1 Credit Hour.
Graduate students are assigned to the various clinics, laboratories, and classes for the opportunity to acquire experience in teaching undergraduate students in a variety of situations. Supervision and evaluation of teaching performance are provided by the graduate faculty.

DIAG 6083. Forensic Odontology Lab. 1 Credit Hour.
Demonstration and application of information and principles are presented in this introductory course in laboratories of the Health Science Center and the Bexar County Medical Examiner’s Office. Successful completion of DIAG 5181 Principles in Forensic Odontology and this course will fulfill requirements for membership in the American Academy of Forensic Sciences.

DIAG 6091. Diagnostic Science Seminar. 1 Credit Hour.
The format of this course includes presentations, reviews, and discussions of current cases from the Dental Diagnostic Science Clinic as well as cases of interest from the teaching file.

DIAG 6097. Research. 1.5 Credit Hour.
This course consists of independent, original research under the direction of a faculty member.

DIAG 6098. Thesis. 1.5 Credit Hour.
Completion of an acceptable thesis is required for the Master of Science degree. Registration in this course for at least one semester is required of all degree candidates.

DIAG 6132. Dental Radiology 1. 1 Credit Hour.
This course offers didactic instruction in fundamental concepts of dental radiology and builds on information learned in DIAG 5009. Instructional content covers radiation physics, x-ray unit components and their function in creating a diagnostic image, radiation biology, radiation hygiene, film and image formation, digital imaging concepts, quality assurance, evaluation of panoramic radiographic errors, and recognition of conventional film processing errors.

DIAG 6135. Clinical Case Conference. 1 Credit Hour.
Each student will be assigned one or more cases to cover in a written report and to present in conference. Over two semesters, weekly conferences will allow for a large variety of representative pathoses to be reviewed and discussed. Students will have the opportunity to correlate the historical, clinical, and radiographic findings in the formation of a differential diagnosis or a diagnostic impression.

DIAG 7036. Radiographic Interpretation. 1 Credit Hour.
This is a comprehensive didactic course in dental radiologic interpretation of diseases of the jaws including differential radiological diagnosis of developmental abnormalities and pathological lesions of the teeth and jaws.

DIAG 7052. Geriatrics. 1.5 Credit Hour.
Lectures and seminars emphasizing dental management of the geriatric patient cover such topics as normal aging, treatment planning, pharmacologic considerations, management and communication techniques, dementias, dentistry for nursing home and homebound elderly, and clinical care.

DIAG 7055. Oral Medicine. 2 Credit Hours.
Lectures, demonstrations, and visual aids present the fundamentals of diagnosis and treatment in general medicine and surgery as they relate to dentistry. Students have the opportunity to demonstrate skill in physical diagnosis in laboratory sessions.
Dental Hygiene (DENH)

Courses

DENH 3004. Oral Anatomy. 2 Credit Hours.
The oral anatomy course is designed to provide the dental hygiene student with instruction in dental terminology and the anatomy of the teeth. Emphasis is placed on clinical considerations of oral anatomy relevant to dental hygiene practice. Includes one (1) lecture hour and three (3) laboratory hours per week. Course fees: Materials fee $50.

DENH 3006. Preclinical Dental Hygiene. 2 Credit Hours.
This course is an introduction to instrumentation techniques and basic clinical procedures. The course offers an opportunity to develop competency in fundamental clinical skills necessary to engage in patient treatment. Includes eight (8) clinical hours per week. Course fees: Lab fee $10 Corequisites: DENH 3023.

DENH 3007. Preclinical Teaching Practicum. 4 Credit Hours.
This course will provide students with an introduction to concepts of preclinical instruction. Instruction will include seminar and laboratory application sessions emphasizing theories of psychomotor skill development; diagnosis of performance problems; provision of feedback; identification of cognitive, psychomotor, and affective behaviors; and faculty calibration. This course requires formal agreement with a participating dental hygiene program prior to the beginning of class. (The didactic portion of this course is delivered through Blackboard) Course Fees: Practicum fee $10 per hour.

DENH 3015. Public Health Practicum. 4 Credit Hours.
This course is an opportunity to gain experience with oral health care delivery or promotion in a public health area. The course will include planning and execution of a project in the students individual area of interest. One full day per week requires the Bachelor of Science Completion student to work in a public health setting in San Antonio or in their community. A formal agreement must be established with the participating public health clinic prior to the beginning of class. Course Fees: Lab fee $10 per hour.

DENH 3017. Clinical Teaching Practicum. 4 Credit Hours.
This course is an opportunity to gain experience with oral health care delivery or promotion in a public health area. The course will include planning and execution of a project in the student’s individual area of interest. One full day per week requires the Bachelor of Science Completion student to work in a public health setting in San Antonio or in their community. A formal agreement must be established with the participating public health clinic prior to the beginning of class. Course fees: Practicum fee $10 per hour.

DENH 3018. Dental Radiography. 3 Credit Hours.
This course is an introduction to scientific principles of oral radiography including essential terminology, the production and absorption of radiation, X-ray unit function, imaging systems, processing, quality assurance, radiation biology, and protection. This course is designed to emphasize radiation health and protection principles and techniques of intraoral and extraoral radiography, exposing, processing, mounting, and critical evaluation of dental radiographs. Laboratory experience and clinical applications are emphasized. Includes two (2) lecture hours and three (3) clinical hours per week. Course fees: Materials fee $50.

DENH 3019. Preventive Dental Hygiene Theory. 3 Credit Hours.
This course is an introduction to concepts used in oral health instruction and patient education. Included in the course is the etiology of dental disease, plaque control, oral physiotherapy, methodology of oral health instruction, nutritional counseling, and patient motivational techniques. This course is designed to give the student an opportunity to develop skills which are necessary for teaching patients how to achieve optimal oral health and to offer experience in communication skills for interpersonal, professional and patient education interaction. The course will also provide an overview of current counseling recommendations to prevent dental and periodontal disease. Includes two (2) lecture hours and three (3) hours of lab per week.

DENH 3020. Clinic 1 Seminar. 2 Credit Hours.
This course presents current theoretical perspectives in which to interpret and expand dental hygiene care. Topics included within the course are cultural diversity, instrument sharpening, communication skills, ultrasonic scalers, and air abrasive polishers. Other topics related to beginning clinical practice are also incorporated. Includes two (2) lecture hours per week. Corequisites: DENH 3021.

DENH 3021. Clinic 1 Practicum. 3 Credit Hours.
This course is a clinical experience in the practical application of patient education and oral prophylaxis techniques. Emphasis will be placed on comprehensive care for the simple patient classifications, including patient assessment, dental hygiene treatment planning, patient education, instrumentation, preventive therapies, and radiographic skills. Includes twelve (12) clinic hours per week. Course fees: Practicum fee $10 per hour Lab fee $30. Corequisites: DENH 3020.

DENH 3022. Dental Materials. 3 Credit Hours.
This course is a study of the materials and adjunct materials used in restorative dentistry and in various other specialty areas of dentistry to fabricate dental appliances and tooth restorations. This course includes lecture and laboratory components designed to help students develop an understanding of the composition, properties, structure, and manipulative variables of dental materials historically used in dentistry as well as the most current materials available. Emphasis is placed on practical, clinical applications of materials; the dental hygienist’s role in educating patients regarding these materials; and the techniques for placement of the materials in the oral cavity. Also included is a discussion of the various categories of dental specialties and the materials used by each specialty. Includes two (2) lecture hours and three (3) lab hours per week. Course fees: Materials fee $50.

DENH 3023. Intro To Clinical Theory. 3 Credit Hours.
This course is an introduction to the theory associated with clinical procedures and patient care. Topics include prevention of disease transmission in the dental setting and patient assessment skills such as vital signs, health history, and oral inspection. An introduction to ethics related to the dental setting is incorporated. Includes three (3) lecture hours per week. Corequisites: DENH 3006.

DENH 3033. Structures Of The Head And Neck. 2 Credit Hours.
The purpose of this course is to give dental hygiene students an appreciation of the anatomical structure of the head and neck region of the human body, which will serve as a foundation of anatomical knowledge that is essential for patient care and useful in understanding function, local pain, anesthesia, and oral pathology. Includes one (1) lecture hour and three (3) lab hours per week.
DENH 3034. Periodontics. 3 Credit Hours.
This course presents an in-depth study of the basics of periodontics. This course will include, but is not limited to, the following: the tissues of the periodontium, clinical assessment of the periodontium, classifications of periodontal diseases, identification of etiologic factors, the relationship of the immune response to the inflammatory process and pathogenesis of periodontal diseases, clinical indices used in periodontics, and systemic factors involved in periodontal diseases. Emphasis is placed on the clinical application of current theory. Includes three (3) lecture hours. Corequisites: DENH 3021.

DENH 3035. Pharmacotherapeutics. 4 Credit Hours.
This course integrates elements of dental hygiene care as they relate to the treatment planning for special patients, understanding pharmacological agents used in dentistry, and management of medical emergencies in the dental office to include: concepts and practice related to the prevention, recognition, and management of medical emergencies that occur in the dental office with specific emphasis on systemic disease processes; understanding drug groups, their mechanism of action, dosage, indication of use, adverse effects, drug interactions, oral side effects in the treatment of human disease process, and its application in the dental hygiene clinical setting. Includes three (3) lecture hours and three (3) laboratory hours per week. Course Fees: Materials fee $50.

DENH 3040. Histology/Embryology. 2 Credit Hours.
This course continues the study of the oral cavity from a histological perspective. It includes the development and microscopic organization of the four basic body tissues in the formation of the oral cavity (i.e., development of the face, oral cavity, and teeth). This information is basic to the understanding of the histological changes arising from pathological alterations in the oral cavity. Includes two (2) lecture hours per week.

DENH 4007. Clinical Administration Practicum. 4 Credit Hours.
The purpose of this course is to present Bachelor of Science Degree Completion students with an opportunity to hone administrative skills in a clinical environment. There will be interactions with second-year dental hygiene students as well as with the second-year clinic coordinator. The course includes conference and clinical application sessions to expand and refine teaching and evaluation skills and clinic administration issues including outcomes assessment, quality assurance, and information technology. NOTE: The course instructor may waive the prerequisites course requirement based on previous clinical teaching experience. Course Fees: Practicum fee: $10 per hour.

DENH 4012. Oral Pathology. 3 Credit Hours.
This course introduces the principles of human disease including pathogenesis, clinical appearance, and treatment. In certain instances, microscopic features will be discussed if they enhance the understanding of the disease process. A portion of the course is devoted to basic principles of general pathology. The majority of the course is an overview of oral pathology with an emphasis on the dental hygienist’s role in the recognition of oral disease. Includes three (3) lecture hours per week. Prerequisites: DENH 3033.

DENH 4015. Clinic 3 Practicum. 3 Credit Hours.
A continuation of DENH 4022 Clinic 2, this course provides students the opportunity to incorporate all learning in providing comprehensive dental hygiene care for patients with simple to complex needs with emphasis on more complex cases, gain experience in the practical application of dental hygiene diagnosis, utilize preventive techniques in patient education skills, practice oral prophylaxis techniques including advanced scaling, implement various management techniques for the difficult patient, and improve efficiency and effectiveness in patient care. Includes twelve (12) clinic hours per week. Course fees: Practicum fee $10 Lab fee $30 Prerequisites: DENH 4012, DENH 4020, and DENH 4022 Corequisites: DENH 4016.

DENH 4016. Clinic 3 Seminar. 2 Credit Hours.
This course will provide the dental hygiene student with current theoretical perspectives in which to interpret and expand dental hygiene care. Advanced and adjunctive procedures for clients of special populations are presented in seminar format and build upon the basic concepts and skills learned during PreClinic, Clinic I, and Clinic II. Knowledge gained will be applied in clinical practice through new skill acquisition and expanded client care options. Professional ethical codes and major contemporary health issues facing the dental hygienist will be presented as well as legal aspects of health care and state Dental Practice Act requirements. Includes three (3) lecture hours per week. Prerequisites: DENH 4012, DENH 4020 and DENH 4022. Corequisites: DENH 4015.

DENH 4017. Community Oral Health Practicum 2. 2 Credit Hours.
This course is the continuation of the fall Community Oral Health Course Practicum 1 in which students apply public health/health education principles through implementing individual community oral health education projects, and through participating in service-learning activities outside the Dental School setting. Opportunities include rotations in public schools and in public health dental clinics. Emphasis is placed on students interacting with a variety of patients, including the physically and mentally challenged, indigent populations, and geriatric groups. Students gain experience in health education, as well as additional experience in providing clinical preventive services out in the community. Includes eight (8) clinic hours per week in off-campus rotations or community projects. Course fees: Practicum fee $10 per hour Prerequisites: DENH 4021.

DENH 4018. Introduction To Research. 3 Credit Hours.
This course is designed to provide the student with an opportunity to expand research knowledge in two dimensions; principles and applications. The course will consist of an in-depth study of the research process, its contexts, design, data collection and communication techniques. Activities will include, but are not limited to collectively or individually: formulating a research question, completing a literature review, assisting in project design, writing and obtaining informed consent, performing pilot activities, planning data collection, collecting and managing research data (including data entry), and practicing statistical calculations.

DENH 4019. Practice Management. 2 Credit Hours.
This course presents the fundamentals of dental practice for the transition from dental hygiene student to practitioner, including basic OSHA regulations and procedures necessary to be an OSHA compliance manager in private practice, maintaining a recall system, interpersonal relationships among members of the dental health team, resumed writing and interviewing skills, and computer applications to patient records. Emphasis will be on current issues in dental hygiene practice and on practical approaches to preparing students to enter the private practice setting as a member of the oral health team. Includes two (2) lecture hours per week.
DENH 4020. Clinic 2 Seminar. 2 Credit Hours.
This course is designed to provide the dental hygiene student with current theoretical perspectives in which to interpret and expand dental hygiene care. Advanced and specialized adjunctive procedures are presented in seminar format and build upon the basic concepts and skills learned during Preclinical and Clinic 1. Knowledge gained will be applied in clinical practice through new skill acquisition and expanded client care options. Case studies will be presented related to ethical issues encountered in clinical settings. Includes three (3) lecture hours per week. Prerequisites: DENH 3022, DENH 3035, DENH 3021, DENH 3034 Corequisites: DENH 4022.

DENH 4021. Community Oral Health Practicum 1. 4 Credit Hours.
Community Oral Health Practicum 1, offered in the fall semester, is the prerequisite course to Community Oral Health Practicum II offered in the spring semester. The purpose of this course is to instill in students the important role of the dental hygienist in the community, and to provide an understanding of the relationship of community oral health to public health. Students will have an opportunity to learn how to promote oral health and prevent oral disease in the community. Students will have an opportunity to learn concepts such as assessment, planning, implementation, and evaluation phases of community-based programs. During this course, the students will plan a community oral health education program that is implemented and evaluated during Community Oral Health Practicum II. Cultural differences, socioeconomic factors and barriers to health care are discussed in relation to developing preventive programs. In addition, students will have an opportunity to learn about federal and state public health programs and current public health issues. Community oral health programs for vulnerable populations such as indigent, geriatric, and special-needs patients are included. Also, students will have an opportunity to participate in community service learning activities that will allow them to provide clinical and educational services to underserved populations. The course includes three lecture hours and four clinical hours per week. Course fees: Practicum fee $10 per hour.

DENH 4022. Clinic 2 Practicum. 3 Credit Hours.
A continuation of DENH 3021 Clinic 1, this course provides further opportunity to incorporate all learning in providing comprehensive dental hygiene care for patients with simple to complex needs with an emphasis on moderate cases. In addition, this course provides an opportunity for the student to gain experience in the practical application of dental hygiene diagnosis, utilize preventive techniques in patient education skills, practice oral prophylaxis techniques including advanced scaling, and implement various management techniques for the difficult patient. Includes twelve (12) clinic hours per week. Course Fees: Practicum fee $10 per hour Lab fee: $30. Prerequisites: DENH 3021, DENH 3022, DENH 3034, and DENH 3035 Corequisites: DENH 4020.

DENH 4023. Special Topics. 1-3 Credit Hours.
Students will be given an opportunity to gain an in-depth understanding of selected topics through seminars, conferences, projects, or other appropriate learning methods.

DENH 4024. Concepts And Practice In Teaching. 3 Credit Hours.
This course offered to Bachelor of Science Degree Completion students, introduces basic principles and techniques used in health care education. Topics include: issues and trends in professional education, principles of adult education, learning styles and motivation, case-based learning, competency-based education, patient and community education, clinical and laboratory instruction, course design, development of lesson plans and learning activities, guidelines for presentation skills, evaluating student performance, and using educational media and software.

DENH 4025. Advanced Periodontics. 3 Credit Hours.
This course builds on the knowledge base presented in DENH 3034 Periodontics, and gives students the opportunity to expand their understanding of treatment, prevention, and diagnosis of periodontal disease. This course examines, but is not limited to, the following topics: the role of the hygienist in non-surgical soft-tissue management, exposure to surgical techniques, wound healing, new technology in diagnostic tools, and products used in treatment or home care. This course further emphasizes the integration of theory into the practice of clinical dental hygiene. Includes three (3) lecture hours per week. Prerequisites: Completion of first year dental hygiene coursework.

DENH 4026. Healthcare Ethics. 1 Credit Hour.
This interdisciplinary course will provide students with an overview of professional and ethical issues facing allied health professionals. Topics to be discussed include responsibilities of the health care practitioner, life and death decisions, patient confidentiality, substance abuse, whistle blowing, and informed consent. Ethics in research and other critical issues related to health care problems will also be addressed. Collaborative activities and simulated cases will be used to enhance discussion among students. Includes one (1) lecture hour per week.

DENH 4027. The Summer Institute In Aging. 3 Credit Hours.
This course is an intensive interdisciplinary service-learning study of the assessment, health promotion, disease prevention, and treatment of the aging person. The course will examine physical, mental, emotional, legal, cultural, and social aspects of gerontology. The course is also designed to encourage the learner to reflect on the impact of the elderly on society, the impact to the dental hygiene profession, and the learner on a personal level.

DENH 4028. Public Health Policy. 3 Credit Hours.
This course will provide the learner with and overview of American Public health policy, and the changes in policy as a result of international and national initiatives. Included in the course is the evolution of oral health public policy in the United States. Many resources will be explored to gain understanding of the process of policy development. By the end of the term the learner will develop a "mock" public policy initiative that will include all elements discussed in the course.

DENH 4091. Independent Study. 1-3 Credit Hours.
This course includes independent reading, research, discussion, project, and/or writing under the direction of a faculty member. The course may be repeated for credit.

DENH 4103. Health Promotions. 3 Credit Hours.
This course provides the Bachelor of Science Degree Completion student a theoretical framework for defining health promotions and set the foundation for students to see potential for health promotions in their work. Topics in this course will use evidence-based practice to reflect health promotion theories, prevention, risk assessment, health education, and health policy. Additionally, interventions and strategies will be used to effectively evaluate the determinants of health and the outcomes of individuals, families, groups and communities.

DENH 4111. Current Issues In Dental Hygiene. 3 Credit Hours.
This course investigates trends influencing the practice of dental hygiene. The history and image of dental hygiene, career satisfaction, educational trends and access to care, independent practice and self-regulations are the issues addressed in this course. A closer look at the legal, political and ethical ramifications of these topic areas as they relate to the dental hygiene profession will be explored.
DENH 4415. Advanced Public Health Practicum. 4 Credit Hours.
This course is a continuation of the Public Health Practicum and will provide the Bachelor of Science Degree Completion students with an opportunity to gain further experience with oral health care delivery projects, development of health promotion and prevention activities, or gain advanced skills in designing community-based and service learning programs. This course will include planning and execution of a project related to the student’s individual area of interest. Course Fees: Practicum fee $10 per hour.

DENH 5003. Current Issues in Dental Hygiene. 3 Credit Hours.
This course investigates trends influencing the practice of dental hygiene. The history and image of dental hygiene, career satisfaction, educational trends, and access to care, independent practice, and self-regulations are the issues addressed in this course. A closer look at the legal, political and ethical ramifications of these topic areas as they relate to the dental hygiene profession will be explored.

DENH 5007. Clinical Administration Practicum. 4 Credit Hours.
The purpose of this course is to present the graduate student with an opportunity to hone administrative skills in a clinical environment. There will be interactions with second-year dental hygiene students as well as with the second-year clinic coordinator. The course includes web based interaction focusing on clinical application to expand and refine teaching and evaluation skills necessary for clinic administration. Specific topics include outcomes assessment, quality assurance, and information technology. Permission from the program director is required. Course Fees: Practicum fee $10 per hour.

DENH 5010. Teaching Internship. 3 Credit Hours.
This internship will provide graduate students with the opportunity to teach in various clinics, laboratories, and didactic courses to acquire experience in instructing undergraduate students in a variety of situations. The course is arranged on a contractual basis and tailored to meet the individual goals, needs, and interests of each graduate student, while keeping in mind background experiences. Supervision and evaluation of teaching performance are provided by the graduate faculty. Course Fees: Practicum fee $10 per hour.

DENH 5015. Public Health Practicum. 4 Credit Hours.
This course is an opportunity to gain experience with oral health care delivery or promotion in a public health area. The course will include planning and execution of a project in the student’s individual area of interest. One full day per week requires the Master of Science student to work in a public health setting in San Antonio or in their community. A formal agreement must be established with the participating public health clinic prior to the beginning of class. Course Fees: Practicum fee $10 per hour.

DENH 5017. Clinical Teaching Practicum. 4 Credit Hours.
This course is an introduction to clinical instruction. The student will have the opportunity to gain experience in identifying and correcting performance problems relating to direct patient care. Instruction will include seminar and a clinical application session emphasizing the instructor’s role as facilitator, role model, and evaluator. This course requires formal agreement with a participating dental hygiene program prior to the beginning of class. (The didactic portion of this course is delivered through Blackboard.) Course Fees: Practicum fee $10 per hour.

DENH 5022. Research Apprenticeship. 3 Credit Hours.
This course allows a graduate to review the literature and to design a research project under the direction of a faculty advisor that leads toward thesis research. Students are expected to design a research proposal that prepares them to collect and analyze data for their future thesis project. Prior to registering for this course requires approval from the advanced program director. This course must be completed in its entirety prior to enrolling in Thesis (DENH 6098).

DENH 5024. Professional Communication. 3 Credit Hours.
This course is designed to help the student develop concepts of professional communication including verbal, visual, and writing skills using state-of-the-art communication resources. Within an interactive topic and computer laboratory format, the students are expected to produce a series of scientific writings, abstracts, annotated bibliographies, and a term paper/research report in the form of a review of the literature.

DENH 5026. Research Principles & Application. 3 Credit Hours.
This course is designed to provide the student with an opportunity to expand research knowledge in two dimensions: principles and applications. The course will consist of an in-depth study of the research process, its contexts, design, data collection, and communication techniques. Students are required to complete this course the first semester in the MS program.

DENH 5027. The Summer Institute In Aging. 3 Credit Hours.
This course is an intensive interdisciplinary service-learning study of the assessment, health promotion, disease prevention, and treatment of the aging person. The course will examine physical, mental, emotional, legal, cultural, and social aspects of gerontology. The course is also designed to encourage the learner to reflect on the impact of the elderly on society, the impact to the dental hygiene profession, and the learner on a personal level.

DENH 5028. Public Health Policy. 3 Credit Hours.
This course will provide the learner with an overview of American Public health policy, and the changes in policy as a result of international and national initiatives. Included in the course is the evolution of oral health public policy in the United States. Many resources will be explored to gain understanding of the process of policy development. By the end of the term the learner will develop a “mock” public policy initiative that will include all elements discussed in the course.

DENH 5036. Health Promotion. 3 Credit Hours.
This course is a theory-based course in which oral health will be viewed holistically. Topics will include the evolving profession of dental hygiene, paradigm shifts in dental hygiene, concepts of health and wellness, behavioral foundations for the dental hygiene process, cultural diversity, approaches to health care delivery, and health needs assessment.

DENH 5050. Educational Principles and Application. 3 Credit Hours.
The goal of this course is to investigate educational concepts, principles, theories and their influence on learning. Through this course the student will gain an understanding into the various learning theories to include Behaviorism, Social Cognitive Theory, and Socio-culturalism. Through the exploration of the taxonomy of significant learning, the student will gain an appreciation of change and problem solving processes in order to encourage creative thinking and decision-making in the classroom. Through this course students will apply information gained to their current professional setting and ultimately develop a personal educational statement.

DENH 5091. Special Topics in Dental Hygiene. 1-9 Credit Hours.
Students will be given an opportunity to gain an in-depth understanding of selected topics through seminars, conferences, projects, or other appropriate learning methods.
DENH 5903. Organizational Leadership. 3 Credit Hours.
The purpose of this course is to present foundational principles and theory relating to organizational leadership, communication strategies and behaviors, management of change, decision-making, and other essential elements of leadership. The course will provide students with general information relating to organizational theory, principles and styles. Additional topics will include leadership in educational organizations to include external and internal factors affecting leaders, program planning and as an elective and is open to all advanced education students enrolled in either the B.S. or M.S. Dental Hygiene Program and graduate students in other Health Professions Programs.

DENH 5924. Biostatistics. 3 Credit Hours.
This course is an introduction to biostatistics. Emphasis is upon application of statistical methods to biological problems. Topics include descriptive statistics, probability, hypothesis testing, and estimation.

DENH 5926. Preclinical Teaching Practicum. 4 Credit Hours.
This course is an introduction to concepts of preclinical instruction. Instruction will include seminar and laboratory application sessions emphasizing theories of psychomotor skill development; diagnosis of performance problems; provision of feedback; identification of cognitive, psychomotor, and affective behaviors; and faculty calibration. This course requires formal agreement with a participating dental hygiene program prior to the beginning of class. (The didactic portion of this course is delivered through Blackboard.) Course Fees: Practicum fee $10 per hour.

DENH 6091. Independent Study. 1-3 Credit Hours.
This course includes independent reading, research, discussion, project, and/or writing under the direction of a faculty member. The course may be repeated for credit.

DENH 6098. Thesis. 1-9 Credit Hours.
Completion of an acceptable thesis project is required for the Master of Science degree. Candidates complete research and submit work on-line to faculty committee members. Registration in this course for at least one semester is required of all degree candidates. Prerequisites: Completion of 30 semester credit hours in the MS in Dental Hygiene program.

Emergency Health Sciences (EMSP)

Courses
EMSP 1137. Emergency Procedures 1. 1 Credit Hour.
Application of emergency medical procedures.

EMSP 1149. Pre-Hospital Trauma Life Support. 1 Credit Hour.
This course is an intense skill development in emergency field management, systematic rapid assessment, resuscitation, packaging, and transportation of patients. It includes experiences necessary to meet initial certification requirements.

EMSP 1160. EMT Basic Clinical. 1 Credit Hour.
This course is a method of instruction providing detailed education, training, and work-based experience and direct patient/client care at a clinical site.

EMSP 1161. Clinical 1. 1 Credit Hour.
This course is a method of instruction providing detailed education, training, and work-based experience and direct patient/client care at a clinical site.

EMSP 1162. Clinical 2. 1 Credit Hour.
This course is a method of instruction providing detailed education, training, and work-based experience and direct patient/client care at a clinical site. Prerequisites: EMSP 1161.

EMSP 1201. Anatomy and Physiology for Paramedic Practice. 2 Credit Hours.
A study of the structure and function of the human body, emphasis will be given to the study of cells and tissues, and anatomical and physiological interrelationships of the skeletal, muscular, nervous, and endocrine systems. This course is designed primarily for Paramedic students.

EMSP 1238. Introduction to Paramedic Practice. 2 Credit Hours.
This course is an exploration of the foundations necessary for mastery of the advanced topics of clinical practice out of the hospital. Course Learning Outcomes: At the completion of this module, the student will be required to understand the roles and responsibilities of a paramedic within the EMS system, apply the basic concepts of development and pathophysiology to assessment, and management of emergency patients.

EMSP 1248. Emergency Pharmacology. 2 Credit Hours.
This course is a comprehensive course covering all aspects of the utilization of medications in treating emergencies. The course is designed to complement Cardiology, Special Populations, and Medical Emergency courses. Course Learning Objectives: The student will be required to display a command of general pharmacological terminology, general drug mechanisms, administration routes and administration procedures, and drug dose calculations. Students will be required to demonstrate understanding of the pharmacodynamics, pharmacokinetics, indications, contraindications, possible side effects, and common drug interactions of a variety of medications used in out-of-hospital medical care.

EMSP 1256. Airway Management and Patient Assessment. 2 Credit Hours.
This course is a detailed study of the knowledge and skills required to reach competence in performing patient assessment and airway management. Course Learning Outcomes: At the completion of this module, the student will be required to take a proper history and perform a comprehensive physical exam on any patient, develop a patient care plan, communicate with others, and establish and/or maintain a patent airway, oxygenate, and ventilate a patient. Course fees: Lab materials fee $150.

EMSP 1244. Cardiology. 3 Credit Hours.
This course is a detailed study of the knowledge and skills necessary to reach competence in the assessment and management of patients with cardiac emergencies. Prerequisite: EMSP 1244.

EMSP 1401. EMT Basic. 5 Credit Hours.
This course is an introduction to the level of EMT Basic. It covers the skills necessary to provide emergency medical care at the basic life support level with an ambulance service or other specialized service.

EMSP 2135. Advanced Cardiac Life Support. 1 Credit Hour.
Instruction satisfies guidelines published by the American Heart Association for their ACLS core curriculum. The focus is on the initial management of the cardiopulmonary arrest patient, including advanced airway management techniques, cardiovascular pharmacology, defibrillation, and arrhythmia analysis. The student must review the current AHA ACLS text prior to class. Successful completion results in ACLS Provider Course Completion Card.

EMSP 2138. EMS Operations. 1 Credit Hour.
This is a course of study to prepare the paramedic to safely manage medical incidents, rescue situations, hazardous materials, and crime scenes.
EMSP 2160. Paramedic Clinical 3. 1 Credit Hour.
A method of instruction providing detailed education training and work-based experience and direct patient/client care at a clinical site.
Prerequisites: EMSP 1162.

EMSP 2161. Paramedic Clinical 4. 1 Credit Hour.
This course is a clinical internship requiring each student under close supervision to complete a stated number of objectives in both the hospital and ambulance environment. Clinical courses to be taken in the sequence are listed above. Students are evaluated on cognitive, psychomotor, and affective domains. A numerical grade is awarded based on performance levels and course objectives met. Note: Successful completion of clinical requirements is based on objectives met along with the required Hours. It may be necessary for a student to complete more than the scheduled 375 hours in order to meet the objectives.

EMSP 2164. Paramedic Practicum. 1 Credit Hour.
Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student.

EMSP 2174. Practicum for Advanced Paramedic Practice. 1 Credit Hour.
Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student.

EMSP 2177. Emergency Procedures 3. 1 Credit Hour.
Application of emergency medical procedures.

EMSP 2230. Special Populations. 2 Credit Hours.
This course is a detailed study of the knowledge and skills necessary to reach competence in the assessment and management of ill or injured patients in nontraditional populations.

EMSP 2237. Emergency Procedures 2. 2 Credit Hours.
Application of emergency medical procedures.

EMSP 2243. Assessment-Based Management. 2 Credit Hours.
This course is designed to provide for teaching and evaluating comprehensive assessment-based patient care management.

EMSP 2244. Cardiology. 2 Credit Hours.
A detailed study of the knowledge and skills necessary to reach competence in the assessment and management of patients with cardiac emergencies.

EMSP 2255. Trauma Management. 2 Credit Hours.
This course is a detailed study of the knowledge and skills necessary to reach competence in the assessment and management of patients with traumatic injuries and to safely manage the scene of an emergency. At the completion of this module, the student will be required to integrate the pathophysiological principles and assessment findings to formulate a field impression and implement the treatment plan for the trauma patient.

EMSP 2274. Medical Emergencies 2. 2 Credit Hours.
Knowledge and skills in the assessment and management of patients with medical emergencies, including medical overview, neurology, gastroenterology, immunology, pulmonology, urology, hematology, endocrinology, toxicology, and other related topics.

EMSP 2278. Advanced Pharmacology. 2 Credit Hours.
Utilization of medications in treating emergency situations with special emphasis on basic principles of pharmacology. This includes the pharmacologic properties of major drug classes and individual drugs, and the clinical application of drug therapy and awareness.

EMSP 2300. Preparation for Professional Practice. 3 Credit Hours.
Theory and skills necessary for the management of cardiac, medical, trauma and pediatric patients specified by American Heart Association and National Association of EMTs guidelines. May be repeated multiple times to improve student proficiency.

EMSP 2334. Medical Emergencies 1. 3 Credit Hours.
This course is a detailed study of the knowledge and skills necessary to reach competence in the assessment and management of patients with medical emergencies. At the completion of this module, students will be required to integrate pathophysiological principles and assessment findings to formulate a field impression and implement a treatment plan for the medical patient.

EMSP 2371. Physical Exam and History Taking. 3 Credit Hours.
The purpose of this course is to provide the learner with the ability to perform and work in non-traditional and rural settings. Learners will gain the skills of patient assessment, disease identification, health education, and preventative medicine. Learners are given the opportunity to study methods for understanding disease processes through proper techniques for eliciting a complete patient history and performing a thorough physical examination. (Successful completion of Physical Assessment & Airway Management and Physical Examination and History Taking satisfies the Physical Examination and History Taking course requirements for the EHS BS degree).

EMSP 2376. Cardiology 2. 3 Credit Hours.
A study of the fundamentals of electrocardiography with emphasis on the role of the 12-lead ECG for advanced paramedic and community paramedic practice. (Successful completion of Cardiology I and II satisfies the Electrocardiography in EHS course requirement for the EHS BS degree).

EMSP 2378. Critical Care Paramedic. 3 Credit Hours.
The purpose of this course is to provide the learner with advanced knowledge in critical care medicine and to prepare healthcare personnel to function as members of a critical care transport team. Topics will include monitoring technology, advanced procedures, diagnostic testing, and treatment of acutely critical patients. (Successful completion satisfies the Critical Care Paramedic course for the EHS BS degree.).

EMSP 3001. Foundations of Emergency Health Sciences. 3 Credit Hours.
This course is an introduction to EMSP. This course surveys the history, evolution, theoretical concepts, and clinical methods and techniques that support the practice of EMSP.

EMSP 3003. Critical Care Medicine. 3 Credit Hours.
This course is designed to provide advanced knowledge in critical care medicine. Topics will include monitoring technology, advanced procedures, diagnostic testing, and treatment of acutely critical patients.

EMSP 3004. Pharmacology 1 for EMS Providers. 3 Credit Hours.
This course is designed to provide the learner with a fundamental knowledge of the actions and therapeutic uses of drugs. The topics covered will include basic principles of drug action, pharmacokinetics, autonomic and cardiovascular pharmacology, neuropharmacology, toxicology, endocrine pharmacology, and respiratory tract pharmacology.
EMSP 3006. Electrocardiology in Emergency Health Science. 3 Credit Hours.
A study of the fundamentals of electrocardiology, this course will emphasize the role of the 12-lead ECG in out-of-hospital medical care. The purpose of this course is to teach a systematic-analytical approach to rapid 12-lead interpretation. Topics begin with cardiac anatomy and physiology and progress to the level of recognizing the classic 12-lead and multi-lead ECG patterns.

EMSP 3007. Human Diseases. 3 Credit Hours.
This purpose of this course is to provide a foundation in basic disease conditions, pathophysiological process behind major diseases and their causes, definitions of disease, classifications of disease, and descriptions of diseases as they pertain to the emergency health sciences.

EMSP 3010. Basic Cardiac Life Support. Credit Hours.
Course instruction satisfies AHA guidelines for Basic Cardiac Life Support (BCLS). Successful completion merits AHS BLS Course Completion Card. Topics include basic airway and ventilatory management of the choking and/or unconscious infant, child, and adult; cardiac chest compressions; and automated external defibrillation (AED). AHD Standard written and skills exams administered.

EMSP 3011. EMS Informatics. 3 Credit Hours.
This course is a class designed to initiate today’s EMS professional to the rapidly advancing field of information science and to acquaint the students with the concepts of electronic field data collection, database theory and its application to EMS, information driven performance improvement, and clinical education.

EMSP 3012. Behavioral Medicine and Psychopathology. 3 Credit Hours.
This course provides an opportunity to develop an understanding of human behavior by providing an overview of behavioral disease processes and differentiation criteria to include disease presentation, physical examination findings, laboratory testing, and therapeutic approaches. The course will focus on issues pertinent to the pre-hospital environment including common patient presentation, overview of the legal system with mental health patients, and individual and system interventions.

EMSP 3013. Professional Orientation and Legal Foundations. 3 Credit Hours.
This course provides the student with an overview of the legal foundations for Emergency Medical Services. Topics include concepts of malpractice, litigation, consent and refusal of medical treatment, advanced directives, patient confidentiality, and expert and factual witness preparation.

EMSP 3031. Directed Study. 1-4 Credit Hours.
This course is available to the learner to allow for a voluntary course of independent study in a clinical/advanced provider concentration.

EMSP 3041. Current Research In Emergency Health Sciences. 3 Credit Hours.
This course is a seminar designed to encourage the learner to discover research and research trends in the field of EMSP. Basic concepts in research methods will be discussed. The learner will have the opportunity to discover methods, procedures, and ways of analysis for examining research.

EMSP 3100. Orientation to Online Learning. 1 Credit Hour.
A course designed to provide the student with necessary information, tools, and strategies to enhance and facilitate learning at a distance at the Health Science Center.

EMSP 4001. Physical Examination and History Taking. 3 Credit Hours.
This course is designed to assist students in refining history taking, psychosocial assessment, and physical assessment skills. Emphasis is placed on detailed health history taking, differentiation, interpretation, and documentation of normal and abnormal findings. Learners are given the opportunity to study methods for understanding disease processes through proper techniques for eliciting a complete patient history and performing a thorough physical examination.

EMSP 4002. Pathophysiology for EMS Providers. 3 Credit Hours.
This course is designed to introduce the student to pathophysiological concepts related to altered biological processes affecting individuals across the lifespan. It includes basic mechanisms of disease, the immune response, and selected disorders of the following systems: neurologic, endocrine, reproductive, musculoskeletal, cardiovascular, hematologic, respiratory, urinary, and digestive.

EMSP 4003. Flight Medicine. 3 Credit Hours.
This course is designed to provide the learner with general physics of flight as well as the effect that flight has on patients and equipment utilized in patient care. Additionally, general aviation guidelines and safety protocols will be introduced as well as the regulatory structure of flight medicine.

EMSP 4004. Management of Disasters and Hazard Materials. 3 Credit Hours.
This course discusses considerations of the theoretical and practical foundations necessary to manage multi-casualty and multi-agency incidents, including planning, response, triage, and scene control. Medical, surgical, mental health, and public health views are discussed along with the resolution phases of disaster.

EMSP 4005. EHS Systems Management and Budget. 3 Credit Hours.
This course is designed to identify and discuss various forms and trends of EHS Systems management. From the volunteer service to the large, urban EHS system, the learner will have the opportunity to become familiar with the various aspects of America’s EHS services. Budgeting and financial management skills and understanding necessary to manage emergency health systems will be emphasized.

EMSP 4006. Educational Issues in Emergency Health Sciences. 3 Credit Hours.
This course analyzes educational and training needs relating to EMS agencies. Principles of adult teaching and learning are presented.

EMSP 4007. Human Resource Development. 3 Credit Hours.
This course reviews the policies necessary to ensure that properly prepared and motivated personnel are available to carry out the mission and daily operations of an EMS organization and to gain a scholarly understanding of and familiarity with foundational HRD theory and research. Topics include methods of hiring staff, performance appraisal processes, legal requirements around health and safety, union matters, and sexual harassment in the workplace.

EMSP 4008. Leadership Development. 3 Credit Hours.
This course is a study and application of contemporary leadership theories and conceptual, skill-building, feedback, and personal growth approaches for the development of effective organizational leadership behaviors and practices.
EMST 4009. Pediatric Advanced Life Support (PALS). 1 Credit Hour.
Instruction presented satisfies guidelines published by the American Heart Association’s ECC for the PALS core curriculum. The focus is on the initial management of the cardiopulmonary arrest pediatric patient including advanced airway management techniques, cardiovascular pharmacology, defibrillation, and arrhythmia analysis. The student must review the current AHA PALS text prior to class. Successful completion results in PALS Provider Course Completion certification.

EMST 4012. Pharmacology 2 for EMS Providers. 3 Credit Hours.
This course is designed to provide a fundamental knowledge of the actions and therapeutic uses of drugs. Topics covered include: fluid and electrolyte balance, bone and joint disorders, nutrition, infectious diseases, and cardiovascular and parasitic diseases. Online course. Note: EMST 3004 Pharmacology I is not a prerequisite for this course.

EMST 4021. Internship. 6 Credit Hours.
This course is a semester internship/capstone experience by arrangement.

EMST 4031. Independent Study 2-Clinical. 3 Credit Hours.
This course is available to the learner to allow for a voluntary course of independent study in a clinical/advanced provider concentration.

EMST 6135. Advanced Cardiac Life Support. 1 Credit Hour.
Theory and skills necessary for the management of cardiovascular emergencies as specified by the American Heart Association (AHA) guidelines. This course was designed to be repeated multiple times to improve student proficiency and available for Master’s level of higher programs.

Emergency Medical Technology (EMST)

Courses

EMST 3010. Emergency Medical Services - Ambulance. Credit Hours.
Orientation to the San Antonio Fire Department Standard Medical Operating Procedures (SMOPs) and EMS Organization is followed by assignment to SAFD Paramedic Ambulance teams. The student experiences emergency patient encounters involving on-the-scene pre-hospital management of medical, surgical, pediatric, psychological, obstetrical, and social emergencies. Experiences include vehicle extrication, full range of pre-hospital medical and trauma patients, EMS communication procedures, medical-legal situations, conflict resolution, EMS-Police cooperation, BLS/ACLS, hospital diversions experience and patient access to care problems peculiar to EMS. During 40 requisite patient encounters, the student makes brief assessment notes, assists in the care and transportation of patients to the 20 San Antonio Emergency rooms. The rotation also includes EMS Case Discussions, formal classes in comparative EMS organizations, methods of emergency triage, introduction to disaster medicine, management of mass casualties, and a survey of weapons of mass destruction. This rotation also includes EMS Case Discussions.

EMST 4010. Emer Med Serv-Ambulance. 4 Credit Hours.
Orientation to the San Antonio Fire Department Standard Medical Operating Procedures (SMOPs) and EMS Organization is followed by assignment to SAFD Paramedic Ambulance teams. The student experiences emergency patient encounters involving on-the-scene pre-hospital management of medical, surgical, pediatric, psychological, obstetrical, and social emergencies. Experiences include vehicle extrication, full range of pre-hospital medical and trauma patients, EMS communication procedures, medical-legal situations, conflict resolution, EMS-Police cooperation, BLS/ACLS, hospital diversions experience and patient access to care problems peculiar to EMS. During 40 requisite patient encounters, the student makes brief assessment notes, assists in the care and transportation of patients to the 20 San Antonio Emergency rooms. The rotation also includes EMS Case Discussions, formal classes in comparative EMS organizations, methods of emergency triage, introduction to disaster medicine, management of mass casualties, and a survey of weapons of mass destruction. Prerequisite: Current BLS Certification and successful completion of third year of medical school is required.

EMST 4100. Advanced Cardiac Life Support. 1 Credit Hour.
The focus of this course is the initial management of the cardiopulmonary-arrest patient including advanced airway management techniques, cardiovascular pharmacology, defibrillation, and arrhythmia analysis. The student must review the current AHA ACLS text prior to class. Successful completion results in an ACLS Provider Course Completion Card. Instruction presented satisfies guidelines published by the American Heart Association’s ECC for their ACLS core curriculum.

EMST 5001. Basic Cardiac Life Support. Credit Hours.
Course instruction satisfies AHA guidelines for Basic Cardiac Life Support (BCLS). Successful completion merits AHA BLS Provider course completion card. Topics include basic airway and ventilatory management of the choking and/or unconscious infant, child, or adult victim; cardiac chest compression techniques; automated external defibrillation (AED). AHA standard written and skills exams administered.

EMST 7000. Emergency Medicine Off Campus. 4 Credit Hours.
All off campus rotations must be approved by the designated faculty member prior to the beginning of the rotation (at least one week before the course begins). Credit will not be given for any rotation that has not been approved in advance. Required paperwork includes: “Course Approval” form, a written letter or email for acceptance from the physician preceptor with the start and end dates of the course/rotation, and a course description of your learning objectives and responsibilities during the rotation. Forms must include a complete address and telephone number for the off campus location or residence address for the student while at the off campus site. Forms will not be approved after the rotation has already begun. Contact the department for assistance with enrolling in this course.

EMST 7001. Basic Cardiac Life Support. Credit Hours.
Course instruction satisfies AHA guidelines for Basic Cardiac Life Support. Successful completion merits AHA BLS Healthcare Provider course completion certification. Topics include basic airway and ventilatory management of the choking and/or unconscious infant, child or adult victim, cardiac chest compression techniques, and automated external defibrillation (AED). AHA standard written and skills exams administered.
Emergency Medicine (EMED)

Courses

EMED 3001. Emergency Medicine. Credit Hours.
This elective introduces the third-year medical student to the specialty of emergency medicine and reviews principles of emergency care that will benefit a graduate entering any specialty.

EMED 3005. Emergency Medicine Core Clerkship. 4 Credit Hours.
This four week core clerkship introduces the 3rd year medical students to the specialty of emergency medicine and reviews principles of emergency care that will benefit a graduate entering any specialty.

EMED 4002. Academic Emergency Medicine-Longitudinal Elective. 2 Credit Hours.
This course is a longitudinal elective with provides fourth-year medical students entering the specialty of emergency medicine with training and experience in medical education with a special focus on the unique opportunities and challenges of teaching in the emergency department.

EMED 4005. ER Medicine/ER Clinical Surgery. 4 Credit Hours.
Senior students must participate in the diagnosis and management of patients with urgent and emergent medical and surgical problems in the Emergency Department at University Hospital. The faculty will attempt to provide students with seriously ill and injured patients. The call schedule includes 12-hour shifts, which are equally divided among students on the service. Students will participate in all conferences designated by the service. Late drops, as defined by the Registrar, will not be permitted.

EMED 4051. Emergency Ultrasound. 4 Credit Hours.
Senior (4th) year medical students will be instructed in the basic use of ultrasound equipment and its application in the emergency department. Topics to be covered during this elective include ultrasound equipment and knology, basic ultrasound physics, ultrasound-guided vascular access (peripheral, central, arterial), Extended Focused Assessment with Sonography for Trauma (E-Fast), aortic ultrasound, pelvic ultrasound, biliary ultrasound, bedside echocardiography, musculoskeletal ultrasound, deep venous thrombosis evaluation, ocular ultrasound, ultrasound guided regional anesthesia, thoracic ultrasound, renal and bladder ultrasound, ultrasound-guided procedures. This training will be accomplished with a combination of didactic lectures, extensive supervised bedside ultrasound training on emergency department patients, independent student ultrasound scanning sessions, required textbook reading, weekly video review sessions and weekly literature review. Each student will be required to complete a minimum of 100 complete ultrasound examinations covering the scope of the course material. This selective is designed to provide a base knowledge in emergency ultrasound for students interested in pursuing an emergency medicine residency.

EMED 4076. Emergency Medicine Rotation - Brooke Army Medical Center. 4 Credit Hours.
BAMC is a Level 1 Trauma Center seeking approximately 50,000 patients per year. All patient types are seen: trauma victims, complicated medical patients, children, OB/GYN patients and psychiatric patients. There is no “compartmentalization” of the Emergency Department. Students work on average of 5 eight-hour shifts per week with a mixture of days, evenings, nights and weekends. Students work one-on-one with staff physicians or senior emergency medicine residents. There are five hours of Grand Rounds per week. There is Morning Report every Monday, Tuesday, Wednesday and Thursday. Each student has the opportunity to participate in a procedure lab, DPL, chest tubes, thoracotomy, transvenous pacing and cricothyroidotomy. This rotation must be arranged through Vanessa Soto, even if you are a HPSP student. No late Drops will be accepted.

EMED 7000. Off Campus Rotation In Emergency Medicine. 4 Credit Hours.
All off campus rotations must be approved by the designated faculty member prior to the beginning rotation (at least one week before the rotation begins). Credit will not be given for any rotation that has not been approved in advance. Required paperwork includes: "Course Approval" form, a written letter or email of acceptance from the physical preceptor with the start and ending dates of the course/rotation, and a course description of your learning objectives and responsibilities during the rotation. Forms must include a complete address and telephone number for the off campus location or residence address for the student while at the off campus site. Forms will not be approved after the rotation has already begun.

Endodontics (ENDO)

Courses

ENDO 5010. Clinical Endodontics 1. 2.5 Credit Hours.
An extensive clinical experience in the broad spectrum of endodontic practice is offered on the graduate level. Each student has the opportunity to maintain a comprehensive endodontic practice under the supervision of the director and staff of the postdoctoral program in endodontics.

ENDO 5011. Clinical Endodontics 1. 3 Credit Hours.
An extensive clinical experience in the broad spectrum of endodontic practice is offered on the graduate level. Each student has the opportunity to maintain a comprehensive endodontic practice under the supervision of the director and staff of the postdoctoral program in endodontics.

ENDO 5015. Dental Photography. 0.5 Credit Hours.
This course is designed to expose the student to the principles of effective dental photography. Students are given the opportunity to make clinical photographs that are critiqued in class.

ENDO 5017. Clinical Seminar 1. 2 Credit Hours.
These seminars provide the opportunity to discuss matters pertaining to clinical endodontics by exposing the student to a wide variety of clinical cases. The seminars provide information to give students the opportunity to become sophisticated diagnosticians and skillful clinicians. Students are provided the opportunity to achieve these goals through student case presentations, faculty case presentations, topical lectures by faculty, and consultant visits. Prerequisites: ENDO 5018.

ENDO 5018. Clinical Seminar 1. 2 Credit Hours.
These seminars provide the opportunity to discuss matters pertaining to clinical endodontics by exposing the student to a wide variety of clinical cases. The seminars provide information to give students the opportunity to become sophisticated diagnosticians and skillful clinicians. Students are provided the opportunity to achieve these goals through student case presentations, faculty case presentations, topical lectures by faculty, and consultant visits. Prerequisite: ENDO 5017.

ENDO 5020. Introduction to Advanced Endodontics. 2.5 Credit Hours.
This course is a laboratory and lecture review of endodontic concepts and techniques starting at the basic level and progressing to the advanced. Various techniques of access preparation, chemomechanical canal preparation, and obturation will be taught. Students will have an opportunity to prepare and obturate the root canal system using a variety of techniques and materials. Procedures are performed under simulated clinical conditions in a mannequin. Following completion of obturation, students dissect and photograph tooth roots under a dissecting microscope to evaluate the effectiveness of the various canal preparation and obturation techniques.
EXAMINATIONS will be determined. The positive feedback provided by these procedures will be discussed. The need for post-treatment follow-up is considered along with alternate treatment plans, and treatment methods. Reasons for any complications will be determined, and methods for preventing them will be discussed. The need for post-treatment follow-up examinations will be determined. The positive feedback provided by these courses is intended to increase student confidence and competence.

ENDO 5052. Endodontic Surgical Anatomy. 1.5 Credit Hour.
This course consists of a series of four four-hour seminar sessions devoted to an in-depth discussion of endodontic surgical anatomy, surgical indications and techniques, and wound healing. This is followed by twenty hours of laboratory during which human head and neck prospected specimens are covered to demonstrate pertinent anatomic structures and the students practice actual surgical procedures on anterior, premolar, and molar teeth in cadaver specimens.

ENDO 5098. Research. 6 Credit Hours.
The course requires the student to formulate a protocol for the purpose of conducting an original investigation. Following a critical evaluation and acceptance of the protocol, the student conducts a research project, suitable for publication, under the guidance of a mentor. The completed research paper is presented to the Endodontics Department research Committee, staff, and guests for evaluation and critique.

ENDO 5097. Research. 2 Credit Hours.
The course requires the student to formulate a protocol for the purpose of conducting an original investigation. Following a critical evaluation and acceptance of the protocol, the student conducts a research project, suitable for publication, under the guidance of a mentor. The completed research paper is presented to the Endodontics Department research Committee, staff, and guests for evaluation and critique.

ENDO 5096. Research. 6 Credit Hours.
The course requires the student to formulate a protocol for the purpose of conducting an original investigation. Following a critical evaluation and acceptance of the protocol, the student conducts a research project, suitable for publication, under the guidance of a mentor. The completed research paper is presented to the Endodontics Department research Committee, staff, and guests for evaluation and critique.

ENDO 5095. Research. 2 Credit Hours.
The course requires the student to formulate a protocol for the purpose of conducting an original investigation. Following a critical evaluation and acceptance of the protocol, the student conducts a research project, suitable for publication, under the guidance of a mentor. The completed research paper is presented to the Endodontics Department research Committee, staff, and guests for evaluation and critique.

ENDO 5081. Case Presentations 1. 4 Credit Hours.
This course is designed to provide faculty evaluation of endodontic cases treated by students. Critical evaluation will be made of the diagnosis, treatment plan, and treatment methodology. Differential diagnosis will be considered along with alternate treatment plans, and treatment methods. Reasons for any complications will be determined, and methods for preventing them will be discussed. The need for post-treatment follow-up examinations will be determined. The positive feedback provided by these courses is intended to increase student confidence and competence.

ENDO 5080. Case Presentations 1.0.5 Credit Hours.
This course is designed to provide faculty evaluation of endodontic cases treated by students. Critical evaluation will be made of the diagnosis, treatment plan, and treatment methodology. Differential diagnosis will be considered along with alternate treatment plans, and treatment methods. Reasons for any complications will be determined, and methods for preventing them will be discussed. The need for post-treatment follow-up examinations will be determined. The positive feedback provided by these courses is intended to increase student confidence and competence.
ENDO 6012. Clinical Endodontics 2. 5 Credit Hours.
An extensive clinical experience in the broad spectrum of endodontic practice is offered on the graduate level. Each student has the opportunity to maintain a comprehensive endodontic practice under the supervision of the director and staff of the postdoctoral program in endodontics.

ENDO 6013. Clinical Endodontics 3. 2.5 Credit Hours.
An extensive clinical experience in the broad spectrum of endodontic practice is offered on the graduate level. Each student has the opportunity to maintain a comprehensive endodontic practice under the supervision of the director and staff of the postdoctoral program in endodontics.

ENDO 6014. Clinical Endodontics 3. 2 Credit Hours.
An extensive clinical experience in the broad spectrum of endodontic practice is offered on the graduate level. Each student has the opportunity to maintain a comprehensive endodontic practice under the supervision of the director and staff of the postdoctoral program in endodontics.

ENDO 6031. Hospital Endodontics Rotation. 1 Credit Hour.
Conducted at the Audie L. Murphy Memorial Veterans Affairs Hospital ("VA"), this rotation consists of the diagnosis, treatment planning, and clinical treatment of endodontically involved teeth and supporting structures. This rotation provides the second-year postdoctoral endodontics student the opportunity to diagnose and treat endodontic problems on all types of inpatients and outpatients in the hospital setting.

ENDO 6032. Hospital Endodontics Rotation. 1 Credit Hour.
Conducted at the Audie L. Murphy Veterans Affairs Hospital ("VA"), this rotation consists of the diagnosis, treatment planning, and clinical treatment of endodontically involved teeth and supporting structures. This rotation provides the second-year postdoctoral endodontics student the opportunity to diagnose and treat endodontic problems on all types of inpatients and outpatients in the hospital setting.

ENDO 6041. Endodontics Lecture. 1 Credit Hour.
This is a lecture course designed to introduce the student to the fundamentals of clinical endodontics.

ENDO 6060. Pulp Biology and Pain Pharmacology. 1.5 Credit Hour.
This purpose of this course is to provide the solid foundation knowledge in the biology of dental pulp and periradicular tissues necessary for appropriate clinical decision making in endodontic and restorative diagnosis and treatment, and to ensure that residents are prepared for future change in therapy or understanding new risk factors in disease.

ENDO 6071. Supervised Teaching. 1 Credit Hour.
The goal of this course is to teach the student how to be an effective teacher. This course involves the student in teaching a sophomore lecture and laboratory course where dental students receive their initial exposure to endodontics. The student is given the opportunity to be actively involved in laboratory supervision of a small group of sophomore students as they perform specific endodontic procedures on extracted teeth. The student functions as an instructor side by side with endodontic faculty members who observe and critique the student’s performance.

ENDO 6073. Literature Review 2. 1 Credit Hour.
This course is designed to familiarize the student with pertinent articles, both topical and current, related to endodontics. The articles, selected from the dental, medical, and basic science literature, are assigned to the student to critically abstract and evaluate for research design, findings, and conclusions.

ENDO 6074. Literature Review 2. 4 Credit Hours.
The goal of this course is for the student to develop a biological understanding and scientific basis for the diagnosis and treatment of a diverse group of topics and treatment modalities that are specifically listed as content in this course. Each topic and session will have goals and objectives specific to that area so that the student will have the opportunity to be able to assimilate information. Each resident will be assigned specific articles for review. Residents will be required to prepare written abstracts of these articles and orally present them to the class.

ENDO 6075. Current Literature Review. 0.5 Credit Hours.
These courses are designed to familiarize the student with pertinent endodontic literature published during the academic year. Students will be assigned specific articles for review and literature will be critically evaluated in a seminar format.

ENDO 6076. Current Literature Review. 1 Credit Hour.
These courses are designed to familiarize the student with pertinent endodontic literature published during the academic year. Students will be assigned specific articles for review and literature will be critically evaluated in a seminar format.

ENDO 6077. Current Literature Review. 1 Credit Hour.
The goal of this course is for the student to develop a biological understanding and scientific basis for the diagnosis and treatment of various endodontic subjects by a review of current literature articles. Each resident will be assigned specific articles for review. Residents will be required to prepare written abstracts of these articles and orally present them to the class.

ENDO 6078. Literature Review. 5 Credit Hours.
This course is intended to introduce the endodontic resident application manuscripts related to our specialty. The articles are selected according to their impact on clinical and biological considerations pertinent to the understanding of the endodontic practice. Subjects will be broad in scope and will cover the majority of topics and treatment alternatives of classic, relevant and contemporary literature. These manuscripts will be discussed and evaluated, placing emphasis on their strength to already existing endodontic comprehension.

ENDO 6083. Case Presentations 2. 1 Credit Hour.
This course is designed to provide faculty evaluation of endodontic cases treated by students. Critical evaluation will be made of the diagnosis, treatment plan, and treatment methodology. Differential diagnosis will be considered along with alternate treatment plans, and treatment methods. Reasons for any complications will be determined, and methods for preventing them will be discussed. The need for post-treatment follow-up examinations will be determined. The positive feedback provided by these courses is intended to increase student confidence and competence.

ENDO 6084. Case Presentations 2. 4 Credit Hours.
This course is designed to provide faculty evaluation of endodontic cases treated by students. Critical evaluation will be made of the diagnosis, treatment plan, and treatment methodology. Differential diagnosis will be considered along with alternate treatment plans, and treatment methods. Reasons for any complications will be determined, and methods for preventing them will be discussed. The need for post-treatment follow-up examinations will be determined. The positive feedback provided by these courses is intended to increase student confidence and competence.
ENDO 6085. Case Presentations 2. 4 Credit Hours.
This course is designed to provide faculty evaluation of endodontic cases treated by students. Critical evaluation will be made of the diagnosis, treatment plan, and treatment methodology. Differential diagnosis will be considered along with alternate treatment plans, and treatment methods. Reasons for any complications will be determined, and methods for preventing them will be discussed. The need for post-treatment follow-up examinations will be determined. The positive feedback provided by these courses is intended to increase student confidence and competence.

ENDO 6086. Case Presentations 3. 2 Credit Hours.
This course is designed to provide faculty evaluation of endodontic cases treated by students. Critical evaluation will be made of the diagnosis, treatment plan, and treatment methodology. Differential diagnosis will be considered along with alternate treatment plans, and treatment methods. Reasons for any complications will be determined, and methods for preventing them will be discussed. The need for post-treatment follow-up examinations will be determined. The positive feedback provided by these courses is intended to increase student confidence and competence.

ENDO 6087. Case Presentations 3. 1 Credit Hour.
This course is designed to provide faculty evaluation of endodontic cases treated by students. Critical evaluation will be made of the diagnosis, treatment plan, and treatment methodology. Differential diagnosis will be considered along with alternate treatment plans, and treatment methods. Reasons for any complications will be determined, and methods for preventing them will be discussed. The need for post-treatment follow-up examinations will be determined. The positive feedback provided by these courses is intended to increase student confidence and competence.

ENDO 6091. Research. 1 Credit Hour.
The course requires the student to formulate a protocol for the purpose of conducting an original investigation. Following a critical evaluation and acceptance of the protocol, the student conducts a research project, suitable for publication, under the guidance of a mentor. The completed research paper is presented to the Endodontics Department research Committee, staff, and guests for evaluation and critique.

ENDO 6092. Research. 2 Credit Hours.
This course is designed to familiarize the student with pertinent articles, both topical and current, related to endodontics. The articles, selected from the dental, medical, and basic science literature, are assigned to the student to critically abstract and evaluate for research design, findings, and conclusions.

ENDO 6093. Research. 2 Credit Hours.
This course is designed to familiarize the student with pertinent articles, both topical and current, related to endodontics. The articles, selected from the dental, medical, and basic science literature, are assigned to the student to critically abstract and evaluate for research design, findings, and conclusions.

ENDO 6094. Research. 4 Credit Hours.
The course requires the student to formulate a protocol for the purpose of conducting an original investigation. Following a critical evaluation and acceptance of the protocol, the student conducts a research project, suitable for publication, under the guidance of a mentor. The completed research paper is presented to the Endodontics Department research Committee, staff, and guests for evaluation and critique.

ENDO 6095. Research. 4 Credit Hours.
The course requires the student to formulate a protocol for the purpose of conducting an original investigation. Following a critical evaluation and acceptance of the protocol, the student conducts a research project, suitable for publication, under the guidance of a mentor. The completed research paper is presented to the Endodontics Department research Committee, staff, and guests for evaluation and critique.

ENDO 6098. Thesis. 4 Credit Hours.
Completion of an acceptable thesis is required for the Master of Science degree. Registration in this course for at least one semester is required of all degree candidates. Admission to candidacy for the Master of Science degree is required in order to enroll in this course.

ENDO 6142. Preclinical Endodontics. 1.5 Credit Hour.
A preclinical endodontics course in which the student is introduced, under simulated clinical conditions, to clinical skills necessary to perform root canal therapy on single and multi-rooted teeth. The lab is fee included in the general laboratory fee.

ENDO 7041. Junior Endodontics Lecture. 0.5 Credit Hours.
This course will build on the cognitive skills attained by the dental student who has successfully completed ENDO 6041 and ENDO 6142 in the Sophomore year. Topics covered include: endodontic case selection, diagnosis and treatment planning, vital pulp therapy, pain control, management of endodontic emergencies, and the evaluation of success and failure. The importance of the inner relationships with other dental disciplines such as periodontics and restorative dentistry are also emphasized.

ENDO 7043. Endodontics Clinic. 1 Credit Hour.
Students are required to perform endodontic diagnosis and treatment procedures necessary to provide comprehensive care for patients.

ENDO 8043. Senior Endodontics Lecture. 1 Credit Hour.
This course will build on the cognitive skills attained by the dental student who has successfully completed ENDO 6041 and 6142 in their sophomore year, and ENDO 7041 in their junior year. Topics covered include: endodontic radiology, management of the open apex, diagnosis and management of procedural errors that occur during routine endodontic therapy, management of post-operative complications, management of luxation injuries and root resorption, bleaching of endodontically treated teeth, endodontic pharmacology, and principles of endodontic surgery. A review of endodontic information necessary to pass licensing examinations will also be provided.
Enrichment Elective (ELEC)

Courses

ELEC 4077. Wilderness Medicine Enrichment Elective. Credit Hours.
The curriculum consists of lectures, hands-on scenarios and case-based learning. Students will work as a team to care for patients in the backcountry. All scenarios will conclude with a debriefing by the faculty. Lecture content will include an introduction to Wilderness Medicine and medical content topics including tick bites, hyperthermia, hypothermia and infectious diarrhea, splinting, envenomations, lightning injuries and animal bites. Other educational activities will include safe water procurement, map utilization, patient extrication from the wilderness and basic camping skills. The scenarios will consist of role playing by participating faculty and will include different cases encountered in the wilderness. The medical students will work together as a team to find, care for and extricate the patient as necessary. During the three-day trip we will spontaneously role play during other wilderness activities such as hiking, building a fire or even during a lecture. Patients become ill at any point and we try to maintain some element of surprise with the scenarios. Students will be evaluated on their participation in group-based scenarios and a short quiz administered at the conclusion of the course. This is an enrichment elective and "credit" will be given to the students who showed active participation in the learning sessions.

ELEC 5004. Surgical Oncology Service. Credit Hours.
Purpose and objective of this elective is to expose the student to the current and multi-modal approach in the diagnosis and management of cancer. Students will observe and monitor all activities directed to the workup, treatment, and follow-up of patients with cancer. Students will have the chance to observe and participate in the different surgical procedures, specifically those related to the treatment of cancer. He or she will be introduced to and familiarized with the principles and concepts of adjuvant chemotherapy, immunotherapy, and hormonal therapy before and after surgical treatment of different diseases. They will also have the opportunity to observe and participate in the different activities in the conduct of clinical trials as sponsored by the different national cooperative groups, i.e. the Southwest Oncology Group and the National Surgical Adjuvant Breast and Bowel Program. The students will learn the necessity for establishing different protocols in the quest for a greater understanding and improvement in the management of malignant diseases and will participate in the discussion of problems related to cancer patient care during rounds and more didactic teachings during Grand Rounds and the regular conferences of the service. Upon completion of this elective, students will have a fairly significant introduction and familiarization into clinical surgical oncology.

ELEC 5006. Beginning Medical Spanish. Credit Hours.
This is not a Spanish language course, per se, but is designed to teach medical students how to perform specific tasks in Spanish. As such, there is no specific Spanish prerequisite to enroll in this course. Students who are interested in acquiring Spanish language in general are invited to enroll in a traditional Spanish course.

ELEC 5022. History Of Anatomy. Credit Hours.
This course is designed to acquaint medical, dental and graduate students with the history of medicine and especially with the physicians and scientists who made essential discoveries in human anatomy. Using a biographical approach, the course is presented as a seminar with lectures, assigned readings and student presentations.

ELEC 5023. Sports Medicine Perspectives. Credit Hours.
Course will expose students to the clinical practice of orthopaedic sports medicine. This includes exposure to high school, collegiate and professional sports. Emphasis will be on injury evaluation, prevention and treatment. Sports may include football, basketball, track and field, baseball, soccer, gymnastics and water sports.

ELEC 5027. Family Violence Education. Credit Hours.
The course will analyze the dynamics of family violence, including the statistics, myths, types of abuse, characteristics of battered persons, the effect of violence on children, characteristics of batterers, treatment programs, the skills needed for intervention and the responsibilities of the medical profession, the legal profession and law enforcement in family violence.

ELEC 5029. Environmental Medicine/Border Health. Credit Hours.
The South Texas Environmental Education and Research (STEER) program gives participants the opportunity to learn about environmental and public health using an in vivo approach "Show, don't tell". During this month-long elective, participants learn about indoor and outdoor air quality, wastewater treatment, food sanitation, heavy metals, pesticides, international health programs, risk management, epidemiology, and zoonosis control, focusing on border health concerns. Participants will learn from local experts about water pollution, tuberculosis, dengue fever, rabies and traditional health practices such as consulting folk healers. This elective is taught in Laredo, Texas. Participants receive free housing and free transportation to and from activities. This opportunity is open to medical students, residents, nursing students, public health students and health care professionals.

ELEC 5030. Advanced Neuroanatomy. Credit Hours.
This enrichment selective is intended to reinforce basic principles learned in Medical Neuroscience and to explore in greater depth current research and thought in neuroanatomy. Clinical relevance will also be stressed whenever applicable. The instructor will meet with the student(s) 2-3 hours per week for 4 weeks. A 20-page library research paper is also required. The course will be subdivided into the following components - 1) Essential Concepts - Cell Biology of Neurons & Glia, Electrochemical Basis of Neuronal Integration, Development of the Nervous System & Its Disorders; 2) Regional Neuroanatomy- Ventricles and Meninges, Cerebrovascular System, Spinal Cord, and Brainstem Anatomy; 3) Systems Neurobiology - Somatosensory System Chemosenses, Special Senses, Motor System, Extrapyramidal System, Cerebellum, Limbic System; and 4) Homeostatic Mechanisms.

ELEC 5031. Introduction To Emergency Medicine. Credit Hours.
Students will be exposed to clinical emergency medicine in an extracurricular setting by working with assigned preceptors in the University Hospital Emergency Department (with the possible addition of BAMC ED or a community ED experience, including toxicology experience). Students will learn about the specialty of Emergency Medicine and its subspecialties. Students will also receive lectures on core emergency medicine topics and attend case presentations.
ELEC 5032. Interdisciplinary Issues & Approaches to Death & Dying. Credit Hours.
The course provides an opportunity to explore issues and interdisciplinary approaches related to death and dying at both the personal and professional levels. Emphasis is placed on the positive and necessary values of compassion, listening and tolerance for varied beliefs. The course encourages participants to engage in constructive critical analysis through self-discovery about death and dying. Areas for discussion include: values clarification, definitions of death, stages of dying, emotions surrounding loss, survivorship, ethical and legal components of death, and transcultural aspects related to death and dying. Communication will be presented as a primary intervention method in dealing with death related issues. Critical analysis of a variety of situations will be stressed as an integral part of the interdisciplinary approach in determining appropriate therapeutic interventions.

ELEC 5036. Let Your Life Speak: Authentic Decision-Making For Your Medical School Career. Credit Hours.
This course is designed to give students in their first or second year of medical school a unique opportunity to evaluate their personal decision-making process. The course will provide a forum for learning and dialoguing with other students about the various factors from a student’s history and present circumstances that impact how the student makes decisions. Questions like, “How will I choose a specialty?” and “How will I maintain my passion for medicine?” will be addressed as the anatomy of the decision-making process is considered. Class will be held in a guided group discussion format with each student also receiving a one-hour personal coaching session with the instructor during the semester.

ELEC 5038. Literature and Medicine 1. Credit Hours.
An elective for second- and fourth-year students, the purpose of the course is for students to use their readings as a tool to prepare for and process their clinical experiences, and to approach their development as people and as physicians. The course also will allow students to interact with other second- and fourth-year students and faculty in a venue that is open and informal. Most of the course will take place on the Web via Blackboard. After each reading block, there will an evening meeting to discuss the story and/or poem. Students will be expected to read the assignments and attend as many of the evening meetings as possible.

ELEC 5039. Literature and Medicine 2. Credit Hours.
An elective for second- and fourth-year students, the purpose of the course is for students to use their readings as a tool to prepare for and process their clinical experiences, and to approach their development as people and as physicians. The course also will allow students to interact with other second- and fourth-year students and faculty in a venue that is open and informal. Most of the course will take place on the Web via Blackboard. After each reading block, there will an evening meeting to discuss the novel and/or poem. Students will be expected to read the assignments and attend as many of the evening meetings as possible.

ELEC 5040. Trauma Enrichment Elective. Credit Hours.
This course is designed to give first- and second-year medical students an introduction to the exciting field of trauma and trauma surgery. It will offer students the opportunity to observe how attendings, medical residents, medical students, and hospital staff work towards caring for patients who suffer from traumatic injury. Students may also have the opportunity to observe the surgeries if approved by the attending on duty.

ELEC 5041. Homelessness, Addiction, & How To Better Care For Patients. Credit Hours.
The goals and objectives of this course are to increase awareness about homelessness and addiction and how they relate to healthcare; to prepare first-and second-year students for working at student-run clinics; and encourage student teaching within all four years of medical school. This a student-run courses, led by MS4 students in the Humanism fellowship, for MS1 and MS2 students with a special interest in learning about issues of homelessness and addiction, and how these relate to the provision of healthcare.

ELEC 5042. Enrichment Elective In Ethics. Credit Hours.
In this longitudinal course, students will be required to undertake an independent study into a specific issue in medical ethics or medical humanities. Students will be required to read on research methods in medical ethics as well as literature in their issue of interest, and then to propose and conduct an original study project, a literature review, a position paper, or an ethical analysis of a particular topic or case. Students will be expected to write an academically rigorous final research report of 10 to 15 pages. Students will be encouraged to produce a final paper that can be submitted for publication in a peer-reviewed bioethics or medical humanities journal. Students will be required to meet with the instructor and/or chosen faculty advisor over the course for assistance, guidance, and discussion.

ELEC 5043. Public Health And The Physician. Credit Hours.
The purpose of this course is to provide a basic understanding of some of the important health issues faced by modern physicians. Each hour of this survey course covers a different public health topic. Half of the class hours will be discussion and education on reading assignments of public health topics. Guest speakers from the university and San Antonio will complement lecture and discussion.

ELEC 5044. Enrichment Elective In Interprofessional Community Service Learning. Credit Hours.
This innovative inter-professional community service learning (CSL) course, offered in partnership with the UT School of Pharmacy, PHR 270S, to allow medical students to integrate meaningful community service with instruction, preparation, and reflection to enrich the learning experience, teach civic responsibility, and strengthen communities. Students will have the opportunity to examine social justice and social determinant of health issues and apply these principles in a structured service learning practicum. The student-led service learning project will address the social and health needs of a community partner and will be conducted with a partner agency in a culturally competent manner. Through online learning modules, readings and discussion; monthly class sessions; a group service learning project; and a structured service learning practicum, this course combines community service with preparation and reflection to help foster civic responsibility in the health professions.

ELEC 5045. Clinical Knowledge And Surgical Skills. Credit Hours.
This elective is for second-year medical students who wish to gain extra insight and experience with the basic skills required for third-year clerkships. The goals of this course are to ease the student’s “fear of the unknown” when they first start their surgery clerkship and to improve the educational experience by giving students the framework on which to learn, allowing them to hit the ground running on day one of the surgery clerkship. The course consists of all lectures (case presentations, didactic session, student/resident panel) in ELEC 5046 and in addition will include the technical skills sessions.
ELEC 5046. Clinical Knowledge For The Surgical Clerkships. Credit Hours.
This elective is for second-year medical students who wish to gain extra insight to the third-year clerkships. The goals of this course are to ease the student's "fear of the unknown" when they first start their surgery clerkship and to improve the educational experience by giving students the framework on which to learn, allowing them to hit the ground running on day one of the surgery clerkship. The course consists of surgery case presentations, didactic sessions, and a student and resident panel. The course is similar to ELEC 5045 but does NOT include the technical skills sessions.

ELEC 5048. Enrichment Elective in Art. Credit Hours.
This is an interactive, interprofessional course that takes students to the McNay Art Museum to learn physical observation skills. Studies demonstrate that increased observational skills translate to improved physical examination skills. Using artwork as patients, students will have the opportunity to learn how to observe details and how to interpret images based on available evidence. Taught jointly by Health Science Center faculty and McNay museum educators, students will have the opportunity to develop and hone their observation, problem solving, and assessment skills. They will also observe, interpret, and give case reports on the original works of art to teach them the skill of verbalizing descriptions of what is seen, and not to accept assumptions made with a first impression.

This is a survey course in which each hour covers a different Health and Human Rights topic. The course is designed to present an understanding of what are human rights and what human rights issues are relevant to the practice of medicine and delivery of appropriate healthcare. Students will have the opportunity to gain a better understanding of the ever increasingly apparent global problems that exist. This course aims to better equip students to address these relevant health and human rights issues as future physicians.

ELEC 5051. Applied Neuroanatomy. Credit Hours.
This course is aimed at students and faculty who are interested in understanding applied neurosensory pathways. The purpose of the course is to reinforce the neurosensory material in the MSI Neuroanatomy course by applying the material to real world situations via interactive activities and clinical vignettes. Additionally, this course will allow students to use different types of art media to express themselves as they learn the material through different types of art media. The course content and schedule is constructed to correspond with the material and schedule of the MSI Neuroanatomy course. This elective will explore four neurotransitory modalities: proprioception/balance, vision, auditory and taste/olfaction. Each modality will be covered in one two-hour class session that will be comprised of a lecture component and its corresponding laboratory component. The course will be open to 15 students.

This elective will complement the spring Health Care Reform Forum, which focuses in-depth on issues related to the cost of care and healthcare forum, primary care and access, and graduate medical education.

ELEC 5053. Healthcare Reform Forum. Credit Hours.
The Healthcare Reform Forum is a springtime introductory-level elective on topics related to healthcare reform. The elective consists of a series of scheduled discussions on current topics in healthcare policy.

ELEC 5057. Global Health Longitudinal Elective. Credit Hours.
Student demand to learn about global health and participate in global health service learning at the School of Medicine to continues to grow every year. To date, the Center for Medical Humanities & Ethics has met this demand successfully. However, students who complete the Longitudinal Global Health elective (ELEC 5047) in their first year are now requesting the opportunity to continue their education in global health and engagement with global health service learning. These experienced students play an important role on subsequent trips as they serve as peer mentors and trip coordinators, improving the overall quality of the services our teams provide abroad. As a result, we are requesting the creation of a new Global Health Longitudinal Elective, specifically for second year medical students who have previously completed ELEC 5047. The Center has set a precedent for offering another elective course for students wishing to participate in the Literature in Medicine course a second time, by offering the course to both second year (ELEC 5038-5039) and fourth year (MEDI 7004) medical students. This proposed elective will utilize a community service learning model, in which preparation, mentorship, evaluation, reflection and reporting are essential in meeting the expressed need of a particular community. The elective will also provide a foundation of practical knowledge in global health and will optimize the students' overseas experiences, maximize the safety of their travel, facilitate their adaptation to working in different cultural settings, and maximize their impact in the communities where they serve. The course material will be presented through a variety of approaches, including lectures, small group case discussions, optional laboratory sessions, practical workshops, and online learning modules. Prerequisites: ELEC 5047.

ELEC 5106. Intermediate Medical Spanish. Credit Hours.
This course is designed to offer first- and second-year medical students the opportunity to acquire important skills to communicate with Spanish-speaking only patients in a culturally sensitive environment. This class is restricted to students who have an intermediate level of written and conversational Spanish and/or have reached at least a Beginner level.

ELEC 5206. Advanced Medical Spanish. Credit Hours.
This course is designed to provide students with the specific medical vocabulary and terminology necessary to communicate with and help treat Latino patients with limited English proficiency. This class is restricted to students who have a previous knowledge of the Spanish language and have reached at least a conversational level. The course will include specific vocabulary groups relating to assessment and care of patients, vocabulary to establish rapport, and discussions leading to cultural competencies. Students will have the opportunity to ask questions and provide answers in common medical situations in Spanish, conduct patient interviews, write medical histories, learn how to conduct physical exams in Spanish, and discuss readings related to the field.

ELEC 6067. Fundamentals of Neuroethics. Credit Hours.
Recent advances in neuroscience have considerably improved our understanding of brain function. However, the fascinating examination of brain's mysteries often intersects with the concerns of ethics and public policy. This course aims at presenting and discussing philosophical and scientific perspectives on major bioethical issues pertinent to neuroscience research. Several subjects will be covered in the course, including the ethics of pharmacological and surgical interventions on the brain/min binomial, therapy versus enhancement, brain imaging and mental privacy, neurobiology of decision making, consciousness, unconsciousness, and death.
Family Practice (FAPR)

Courses

FAPR 3005. Family Medicine Clerkship. 7 Credit Hours.
The family medicine clerkship introduces students to the principles, philosophy, and practice of family medicine, including fundamental concepts of comprehensive, continuous, cost-effective, family-oriented medical care. Students participate in the care of patients in various outpatient and inpatient settings. Students will have the opportunity to practice clinical problem solving in the undifferentiated patient and to improve their basic clinical skills. Students are expected to gain basic knowledge in the diagnosis and management of common family medicine problems, health promotion/disease prevention, and geriatrics. Prerequisites: Successful completion of all required preclinical courses is prerequisite to enrollment in any of the clinical clerkships.

FAPR 3008. Environmental Medi/Border Health. Credit Hours.
The objectives of this course are for the student to have the opportunity to learn to be able to 1) discuss contemporary environmental and public health concerns, as well as cultural influences, that affect the health of U.S.-Mexico border residents and other underserved populations, 2) identify credible sources of public health information and assistance, and explain how to use these to help patients and communities, 3) describe clinical manifestations of common environmental contaminants, such as lead, mold, allergens, and water pollutants, and tell how these exposures are measured, 4) explain when and how to take an exposure history and the role of environmental house calls in addressing chronic health conditions such as asthma. To enroll in this elective, contact course director at least 6 weeks prior to rotation start date.

FAPR 3010. Public Health at The US-Mexico Border. Credit Hours.
This elective is a unique hands-on and community-based rotation focusing on public health concerns on both sides of the U.S.-Mexico border. Students spend 4 weeks in residence at the RAHC (Regional Academic Health Center) campus (housing provided for non-RAHC students) in Harlingen, Texas. Approximately three-quarters of the time, students are in the field, learning about environmental, international, and public health issues and diseases such as tuberculosis, dengue fever, diabetes, West Nile virus, and rabies that pose major risks to residents of the U.S.-Mexico border. Experienced public health practitioners teach participants while they visit clinics, health departments, and hospitals on both sides of the border, and spend time with families in colonias. Participating students learn first-hand about major public health concerns in the region that have the potential to affect citizens throughout Texas and the U.S. This elective is highly sought after by CDC Interns. At the end of the course, students are required to report on their experiences in writing and orally to a group of public health practitioners and faculty. Students will be transported to and from Mexico and accompanied to the teaching sites. Knowledge of Spanish is helpful but not necessary.

FAPR 3011. Community Geriatrics. Credit Hours.
The objectives of the course are for the student to be able to have the opportunity to learn to 1) evaluate an elderly patient to include history and physical examination, and problem list, 2) administer geriatric assessments for dementia, depression, and function, 3) interpret assessment findings in the context of a patient’s functional level, 4) make a comprehensive geriatric treatment plan, 5) target and prevent functional decline, 6) determine capacity for decision making, 7) identify and describe the geriatric syndromes, 8) utilize home health services appropriately, 9) make referrals for outpatient rehab and for consultants, 10) utilize geriatric principles in all specialty areas.

FAPR 3012. Family Medicine Inpatient Services (San Antonio or RAHC). Credit Hours.
This elective can be completed at University Hospital or Christus Santa Rosa in San Antonio, Valley Baptist Medical Center in Harlingen or McAllen Medical Center in McAllen, or Christus Spohn Memorial Hospital in Corpus Christi. Please note: the Harlingen site is a Christian-based residency program.

FAPR 3018. Office Procedures. Credit Hours.
The objectives of this course are for the student to have the opportunity to learn to be able to 1) conduct an informed consent for common ambulatory procedures, 2) perform with assistance and supervision laceration repairs, skin lesion removal, wedge ingrown toenail removal, and cast/splint placement, 3) assist with circumcisions, colposcopies, vasectomies, and flex sigmoidoscopies. Students will rotate through various clinics at the University Health System Downtown Clinic (9 half-days per week in clinic; one half-day for readings, resident conferences, etc.). Experience will include both traditional outpatient and special procedure clinics.

FAPR 3020. Family Medicine Preceptorship with Clinical Faculty. Credit Hours.
This is a full-time outpatient family medicine clinical experience with a board-certified family physician who has a clinical faculty appointment with UTHSCSA. Students must work with the department to identify available clinical faculty members prior to contacting a preceptor. Student must be in clinic M-F (minimum of 9 half days and one half-day for reading, attending residency didactics or additional clinical work).

FAPR 3107. Sports Medicine in Family Medicine. Credit Hours.
This interprofessional Sports Medicine clinical elective is taught by UTHSCSA faculty. Students see sports-medicine patients under supervision in multiple ambulatory clinics and work with musculoskeletal radiologists, orthopedic surgeons, and physical therapists as scheduled by the Family Medicine faculty. Students also work in athletic training room setting and cover athletic events with Family Medicine faculty.

FAPR 4000. Special Topics in Family Medicine. 4 Credit Hours.
This is a self-designed course created by both the student and the preceptor to cover a specific topic within Family Medicine. The student is required to work closely with the preceptor in a clinical and/or non-clinical setting. A Course Approval Form must be completed along with documentation of the designed course description and confirmation of appointment with preceptor. Objectives are to be designed by student and preceptor. Student must submit a prepared outline of course activities that is signed by their preceptor prior to the beginning of the course.

FAPR 4006. Research in Family Medicine in San Antonio or Harlingen. 4 Credit Hours.
At least 8 weeks before the elective’s starting date the student must submit a completed course approval form and a written document that includes: the research topic; a printed literature search on that topic; readings on research design and/or statistical analysis that will be read as part of the course activities; the dates and times and locations of meetings between the student and the faculty member; expected course outcomes (e.g. presentations); and a signed statement from Dr. Sandra Burger (SA) or Dr. Adela Valdez (the RAHC) saying she will mentor and work with the student on the project.
FAPR 4011. Community Geriatrics. 4 Credit Hours.
Interdisciplinary approach to acute care of elderly patients. At the completion of the selective, the student will be able to evaluate an elderly patient to include history and physical examination, and problem list; administer geriatric assessments for dementia, depression, and function; interpret assessment findings in the context of a patient’s functional level; make a comprehensive geriatric treatment plan; target and prevent functional decline; determine capacity for decision making; identify and describe the geriatric syndromes; utilize home health services appropriately; make referrals for outpatient rehab and for consultants; utilize geriatric principles in all specialty areas. Curriculum includes supervised clinical experience in a geriatric ambulatory care clinic; read assigned articles on geriatric topics encountered in the clinic; experiences in long term care and hospice may be arranged on request.

FAPR 4012. Sub-Intern Family Medicine In-Patient Services (San Antonio or RAHC). 4 Credit Hours.
The objectives of this course are for the student to have the opportunity to learn to be able to perform initial patient history and physical, and develop comprehensive assessment and management plan of patients admitted to the hospital; efficiently conduct the initial evaluation of a patient for admission, including documenting the history and physical, writing admission orders, and initiating the appropriate paperwork and calls needed for indicated diagnostic studies; participate in all aspects of inpatient care including daily visits, writing progress notes, attending patient and family discussions, and planning patient discharge; under the supervision of the faculty and upper level residents, maintain daily responsibility for care of a panel of hospitalized patients.

FAPR 4015. Medical Informatics. 4 Credit Hours.
The objectives of this course are for the student to have the opportunity to learn to be able to discuss informatics topics such as vocabulary issues and decision support theory; contribute to informatics projects such as creation of Web Pages or development of portions of electronic medical records.

FAPR 4018. Office Procedures. 4 Credit Hours.
The objectives of this course are for the student to have the opportunity to learn to be able to conduct an informed consent for common ambulatory procedures; perform with assistance and supervision laceration repairs, skin lesion removal, wedge ingrown toenail removal, and cast/splint placement; assist with circumcisions, colposcopies, vasectomies, and flex sigmoidoscopies.

FAPR 4020. Family Medicine Preceptorship with Clinical Faculty. 4 Credit Hours.
The objectives of this course are for the student to have the opportunity to learn to be able to evaluate known patients of all ages presenting in an ambulatory setting and develop management plans for chronic as well as acute illnesses; evaluate new patients of all ages presenting in an ambulatory setting and develop differential diagnoses and management plans for chronic as well as acute illnesses; corporate appropriate prevention and anticipatory guidance into chronic and acute patient visits; optimize management plans for minority and uninsured patients by collaborating with members of the health care team, identifying community resources, developing management plans that consider the costs of medications and interventions; understand how physicians contribute to improving the quality of patient care, access to care, and navigation through the health care system for traditionally underserved populations.

FAPR 4022. Spanish Speaking Patient Clinic. 4 Credit Hours.
Objectives include at the end of this selective, the student will have had the opportunity to learn to and be required to evaluate and develop management plans with primarily Hispanic, Spanish-speaking patients under the supervision of family physicians at the Barrio Comprehensive Health Clinic; develop and present culturally appropriate patient education materials for Hispanic, Spanish-speaking patients; discuss public health initiatives including Healthy People 2010, HHS Hispanic Health Initiative, and the President’s Initiative on Ethnic Health Disparities; discuss Institute of Medicine reports such as “Unequal Treatment” and “Health Literacy” concerning health care disparities for Hispanic and other minority patients; increase proficiency in Spanish in particular Medical Terminology. Curriculum includes direct patient care under the supervision of the medical director of the Barrio Comprehensive Clinic (7 half-days per week); development and presentation of patient education session (1 half day per week); self directed study (2 half days per week).

FAPR 4025. Family Medicine Ambulatory Children’s Health Elective. 4 Credit Hours.
Course content requires students to care for children in two ambulatory settings: 1) Family Health Center: See 15 patients/session in Well Child Clinic; 3 sessions/wk with one session school-aged children in the early evenings and 3-15 walk-in pediatric patients with acute or urgent care complaints 3 half-days/wk under the supervision of a Family Medicine attending. Students must participate in PGY-1 pediatric case conference on Friday mornings before walk-in clinic starts and attend Wednesday afternoon FM Residency Conference. 2) Bexar County Juvenile Detention Center (JDC): See detained adolescents for intake physical exams and for evaluation of acute complaints two half-days/week under the supervision of a Family Medicine attending.

FAPR 4030. The Patient-Centered Medical Home in Family Medicine. 4 Credit Hours.
This unique course for 4th year students provides an in-depth experience in the Patient-Centered Medical Home within the context of a multi-specialty practice. This model emphasizes care coordination and care transitions in the Southeast Texas Medical Associates, LLP Model of Care and features provider transparency public reporting of provider performance by provider name. Experiences include participating in a learning organization with collegial relationships with primary care and specialty physicians, nurse practitioners, nurses, support staff and other members of the healthcare team. Students will also learn to design and sustain quality improvement projects and see the place and power of informatics in primary care. The course is conducted in Beaumont, TX and housing is provided.

FAPR 4074. Rural Clinical Experience in Family Medicine (AHEC). 4 Credit Hours.
The Department of Family and Community Medicine (DFCM) and the South Central Area Health Education Center (AHEC) at the UT Health Science Center at San Antonio collaborate to provide fourth year medical students strong primary care training at various rural AHEC clinical training sites in South Texas. The experience occurs primarily in ambulatory settings, but may include inpatient experiences with physicians who follow their patients in hospital settings. The student, under the direct supervision of a physician certified by the American Board of Family Medicine, evaluates and manages a wide array of medical problems. The student also gains experience in preventing common disorders and medical problems and works with other health professionals to better understand the health care needs of and services available to patients in rural settings. All paperwork must be submitted to the Department of Family and Community Medicine at least 10 working days prior to the start of the course.
FAPR 4101. Complementary & Alternative Medicine on US/Mexico Border. 0.5 Credit Hours.
Course is designed to enable fourth year medical students to problem-solve common situations where allopathic and alternative medicine interface. Students will meet twice a week for 4 weeks, for one hour, with the instructor. The instructor will teach the students about complementary and alternative medicine practices on the US/Mexico border. The students will be asked to review case vignettes to discuss these practices and how they would deal with certain common situations where alternative medicine interfaces with allopathic medicine. These discussions may lead to ethical and medicolegal issues.

FAPR 4103. Women’s Health Seminar. 0.5 Credit Hours.
The students will meet once a week for 5 weeks for two hour, with the course instructor. The instructor will present women patient case vignettes and lead a discussion of the case. The students will then be asked to read medical literature in regard to women’s health issues. The case vignettes will be in the one of six health disparities (Diabetes, Cardiovascular Disease, Cancer, HIV/AIDS, Infant Mortality and Childhood and Adult Immunizations).

FAPR 4107. Sports Medicine In Family Medicine. 4 Credit Hours.
This interprofessional Sports Medicine clinical elective is taught by UTHSCSA faculty. Students see sports-medicine patients under supervision in multiple ambulatory clinics and work with musculoskeletal radiologists, orthopedic surgeons, and physical therapists as scheduled by the Family Medicine faculty. Students also work in athletic training room setting and cover athletic events with Family Medicine faculty.

FAPR 4201. Practice Management-RAHC. 0.5 Credit Hours.
This course will cover Medical Office Management issues. Topics will include Medical Insurance, Coding ICD-9 & CPT-4, Medical Insurance Billing, Computerized Medical Office Software(s), 3rd party payments, contractual issues and other related topics. This course will be beneficial to those medical students in preparation for internship and future office practice.

FAPR 4202. Dermatology: A Short Review Course. 0.5 Credit Hours.
This 8-hour dermatology course will follow the American Academy of Family Practice (AAFP) board dermatology curriculum and will include the following topics: basic components of dermatology and common dermatologic problems, as well as common skin cancers. This is a Family Medicine MS4 didactic elective for Harlingen.

FAPR 4203. Review of Evidence-Based Medicine. 0.5 Credit Hours.
This course aims to provide medical students with a set of evidence-based exercises relating to diagnosis, prognosis, therapy, and harm. Students will be asked to formulate clinical questions so that they can be answered, to search for information, to critically appraise the evidence for validity and clinical importance, and apply the evidence in clinical practice. This is an MS4 didactic elective for Harlingen.

FAPR 4205. Medicine and the Environment. 2 Credit Hours.
In this course students will read and view assigned and selected materials on environmental health and discuss the role of environmental factors in the diagnosis and treatment of patients. Objectives 1) Understand how environmental exposures in the personal environment and the community have an impact on health; 2) describe how sociocultural and economic factors influence the risk for and from common environmental exposures; 3) evaluate how characteristics such as age/development state, gender, genetics, and prior/concurrent exposures may affect individual susceptibility to exposures; 4) list 10 important areas to consider in performing and Environmental House Call to improve air quality and home safety; 5) obtain an exposure history for an adult or child; 6) demonstrate the ability to continue improving environmental health knowledge and skills.

FAPR 7000. Off Campus. 4 Credit Hours.
In this course, the student is required to work closely with the preceptor in a clinical setting that can be either in-patient/outpatient or both. The student can work either in private practice or a residency program setting. The preceptor must be board-certified in family medicine and have a clinical faculty appointment with a LCME-Accredited Medical School. The student must not be a relative of the preceptor. Students must arrange the preceptorship directly with the family physician. Course Approval Form must be completed along with documentation of the designed course description and confirmation of appointment with preceptor.

FAPR 7004. Family Medicine Preceptorship-External. 4 Credit Hours.
This is a full-time outpatient family medicine clinical experience with a board-certified family physician in either a private practice or residency program setting. Only a board certified family physician is acceptable for this course. The physician supervisor does not have to have an HSC faculty appointment but must have an affiliation with a LCME-accredited Texas Medical School. This elective can be arranged directly between the student and the family physician. Student must not be a relative of the preceptor.

FAPR 7005. International Health Preceptorship. 4 Credit Hours.
The objectives of this course are for the student to have the opportunity to learn to be able to describe inpatient, outpatient, and community health activities in a setting outside the United States; diagnose and provide management for illnesses seldom seen in the United States under the supervision of a physician; make appropriate medical decisions, supervised by a local physician in that country, in a setting in which cultural norms, socio-economic factors, and religious beliefs differ from those commonly found in the United States influence patient care.

FAPR 7008. Environmental Medical/Border Health. 4 Credit Hours.
The objectives of this course are for the student to have the opportunity to learn to be able to discuss contemporary environmental and public health concerns, as well as cultural influences, that affect the health of U.S.-Mexico border residents and other underserved populations; identify credible sources of public health information and assistance, and explain how to use these to help patients and communities; describe clinical manifestations of common environmental contaminants, such as lead, mold, allergens, and water pollutants, and tell how these exposures are measured; explain when and how to take an exposure history and the role of environmental house calls in addressing chronic health conditions such as asthma. To enroll in this elective, contact course director at least 6 weeks prior to rotation start date.
FAPR 7010. Public Health at The US-Mexico Border. 4 Credit Hours.
This elective is available in Harlingen and Laredo (FAPR 7008). Student must spend four consecutive weeks in the STEER Course. NO LATE DROPS. Objectives include discuss contemporary environmental and public health concerns, as well as cultural factors, that affect health of U.S.-Mexico border residents and other underserved populations; identify credible sources of public health information and assistance, and explain how to use these sources to help patients and communities; describe clinical manifestations of common environmental contaminants, such as lead, mold, allergens, and water pollutants, and tell how these exposures are measured; explain when and how to take an exposure history and the role of “environmental house calls” in addressing chronic health conditions such as asthma.

General Dentistry (GEND)

Courses

GEND 5001. Foundations Of Professional Development. 2 Credit Hours.
The course consists of introductory modules of practice and patient care management aimed at building the skills needed in establishing a successful practice and in contributing to the oral health of our communities. The modules include principles of professionalism, ethics, and behavior expected from health care providers. Students are evaluated on how they apply to their coursework the principles learned throughout the year. Specific modules provide a better understanding of the whole field of dentistry, career choices, and opportunities available in the dental school to assist students in making informed career decisions. Other modules are dedicated to personal finances, the economics of health care, and the foundations of strategic planning. Finally, modules on dental informatics introduce the students to the utilization of computers and to the basic software needed throughout the curriculum and for a successful practice.

GEND 5027. Pain Control & Sedation. 3.5 Credit Hours.
The course is an in-depth, comprehensive assessment of pain control in dentistry. Beginning with neuroanatomy and pain, the course builds a valid foundation in basic science before advancing to a panoramic discussion of techniques in anxiety management and pain control. Behavioral management and conscious sedation techniques review are the major emphasis and are accompanied by demonstrations.

GEND 6001. Professional Development 2. 2 Credit Hours.
This is a continuation of the first-year course in which the students explored personal and professional goals, basic financial statements and the elements of strategic planning through an interactive web site. The students will continue to use the web site as (1) their main source of educational material, (2) the place where they perform interactive assignments and workshop exercises, (3) a mechanism for taking and organizing class notes, and (4) a place for consulting class reference manuals and linking to outside educational resources. Class time will be used to familiarize the students with the web-based course, facilitate the use of the web site, and answer student questions on its content. During the sophomore year, students will apply financial statement analysis and strategic planning to the internal environment of the practice, will assess strengths and weaknesses in the operation of a dental office, and establish a practice policy.

GEND 7001. General Dentistry Clinic. 4 Credit Hours.
The Junior General Dentistry Clinic course oversees student progress towards competency in: patient assessment and diagnosis, comprehensive treatment planning and assessment of outcomes, management of periodontal and pre-implant tissues, and management of malocclusion and occlusal disorders as described in Statements 01, 02, 07, and 13 of the HSC Dental School Competencies for Graduating Dentists. Junior students will be evaluated by GPG faculty on their independent efforts in satisfying the educational outcomes described for each of the four component competencies included in the course. Results of the evaluation will be kept in the student portfolio by the group leader. Unsuccessful attempts will be repeated until the student demonstrates adequate progress towards competency. A final grade at the end of the junior year will be Pass or Fail. Each component of the course must be passed to receive a passing grade.

GEND 7026. Practice Administration. 2.5 Credit Hours.
This course presents the various career choices available in dentistry and presents material to aid students in the career decision-making process. An introduction to the basic principles of beginning and managing a dental practice with emphasis on establishing a philosophy of practice, establishing goals, selecting practice modes, and choosing a location. The principles of office design and equipment selection also are covered.

GEND 8026. Practice Administration. 1.5 Credit Hour.
This series of lectures deals with the business aspects of conducting a practice. Consideration of establishing and administering a practice, estate planning, bookkeeping methods, banking, marketing, management and utilization of personnel, and completion of a prospectus and office design project also are presented.

GEND 8077. General Dentistry Clinic. 26.5 Credit Hours.
Clinical experience for senior students under supervision of the Department of General Dentistry emphasizes comprehensive patient care in an atmosphere that closely simulates the private practice environment. Providing students an opportunity to accomplish procedures from each discipline of dentistry is the goal; therefore, students receive instruction from a faculty of general dentists. Various specialty departments provide didactic material, rotations in specialty clinics, and consultation. Senior Seminars, conducted by the Department of General Dentistry, entail lectures, problem-solving sessions, and presentations of selected cases designed to enhance the students’ knowledge of comprehensive clinical dentistry.

GEND 8078. General Dentistry Seminar. 2 Credit Hours.
This seminar presents topics relevant to clinical practice including application and selection of dental materials, an overview of dental equipment, and clinical techniques. It is intended to reinforce philosophies presented by the specialty disciplines, to provide the opportunity to discuss dental topics of current interest, and to promote dialogue between students and faculty.

Interdisciplinary Course (INTD)

INTD Courses

INTD 1091. Independent Study. 4 Credit Hours.
Students will work directly with a faculty advisor or assistant dean to develop an independent plan of study.
INTD 2001. Introduction to the Clinical Sciences 1. 9.5 Credit Hours.
This course encompasses the major clinical fields of internal medicine, obstetrics/gynecology, pediatrics, surgery, and surgical subspecialties. It is designed to cover all aspects of human disease states including vocabulary, data collection skills, problem solving, surgical principles, surgical pathophysiology, concepts unique and common to pediatric-aged patients, and sexual and reproductive pathophysiology. The course will be organized into organ system modules and integrated with pathology and pharmacology. Teaching format will include lectures and small-group sessions. The first semester, ICS I, will include general concepts, renal, cardiovascular, respiratory/infectious diseases, and hematology/dermatology organ system modules. ICS II, second semester, will include gastrointestinal, musculoskeletal, neuroscience, special senses, reproductive and endocrine systems, plus trauma and toxicology.

INTD 3001. International Elective. Credit Hours.
Students will work with the course director and Assistant Director of Global Health to identify an appropriate international elective site, using established sites/programs or one that the student discovers on their own. All rotations must be vetted and approved by the course director and will adhere to a community service-learning model that is a structured educational experience combining community service with preparation and reflection. Students are expected to help shape the learning experience around community-identified needs and advance insight related to the context in which service is provided, the connection between service and academic coursework, and students’ roles as citizens and professionals. Students will spend 4 weeks living and working at an international service site. Sites may allow for a range of experiences, such as participating in patient care, conducting clinical or public health research, and/or participating in a language immersion program. There may also be opportunities for patient education and emphasis on efforts of local empowerment, aiming to build up the communities in a sustainable way. Regardless of the focus, all sites must be supervised by qualified health care providers. Students are encouraged to integrate themselves into the health care delivery system, to explore community needs that they could address, and when possible, to strive to make an impact through community education, home visits, and research. Reflection essays serve as a way to process experiences, including clinical cases, new perspectives gained, and analysis of health care disparities, and strategies for the overcoming poverty-related health problems. Students are encouraged to share their experiences upon return through a formal presentation.

INTD 3002. School of Medicine Research Elective. Credit Hours.
Students will participate in basic or clinical research projects under the supervision of university faculty. The goal of this elective is to examine students in a rich research environment and provide an opportunity to work with research mentors to fully engage in the research process from the proposal to collecting the data to disseminating research results. This elective is open to students who already have an established working relationship with a faculty member and who wish time to continue their work, students who wish to establish a new project, and for students who are in the MD-MPH degree program and MD with Distinction in Research Program. Interested students must contact the course director prior to the enrollment date to express interest in the elective and receive further instructions on the application process for the research and identification/confirmation of the faculty mentor.

INTD 3030. Clinical Foundations. 3 Credit Hours.
The purposes of this course are to 1) Prepare students to excel as learners in clinical settings by providing foundations for clinical skills including finding information, presenting cases, charting, writing orders, completing other paperwork, and clinical reasoning including basic EKG and radiograph interpretation; 2) Assist students in developing new skills expected of third-year clerks including lab skills (phlebotomy, ABG, blood cultures, hemocult cards), IV insertion, PPD placement, sterile gowning/gloving, basic suturing, nasogastric tube placement, O2 management, and Basic Cardiac Life Support; and 3) Prepare students for their new roles in clinical settings, where they encounter patient care responsibilities along with patient privacy and ethical issues. Successful completion of the first two years of Medical School and approval of the director of the MD/PhD program are required.

INTD 3091. Independent Study. 9 Credit Hours.
Students will work directly with a faculty advisor or assistant dean to develop an independent plan of study.

INTD 4007. Interprofessional Community Service Learning. 2 Credit Hours.
This is an innovative interdisciplinary service learning (CSL) course offered in partnership with the UT School of Pharmacy, PHR 270S, to allow medical students to integrate meaningful community service with instruction, preparation, and reflection to enrich the learning experience, teach civic responsibility, and strengthen communities. This course will provide the opportunity for students to examine social justice and social determinant of health issues and apply these principles in a structured serviced learning practicum. The student-led service learning project will address the social and health needs of a community partner and will be conducted with the partner agency in a culturally competent manner. Through online learning modules, readings, and discussion; monthly class sessions; a group service learning project; and a structured service learning practicum, this course combines community service with preparation and reflection to foster civic responsibility in the health professions.

INTD 4008. Interprofessional Care in HIV. 0.5 Credit Hours.
Students will have the opportunity to learn how to function as a member of an interprofessional team in HIV case management. The objective is for students to become familiar with issues of patient safety, health literacy, medication reconciliation, and interprofessional teamwork in HIV care. This is an elective didactic course. This is an elective didactic course.

INTD 4009. Interprofessional Care in HIV. 2 Credit Hours.
Students will have the opportunity to learn how to function as a member of an interprofessional team in HIV case management, and become familiar with issues of: patient safety, health literacy, medication reconciliation, treatment guidelines, and interprofessional teamwork in HIV care.

INTD 4015. Humanism in Medicine Fellowship. 2 Credit Hours.
This is a longitudinal 4th-year elective to support and nourish the inherent altruism of our students. This elective will bring together like-minded students and faculty who have a passion for caring for the medically underserved in their communities. The students will take a leadership role in managing and directing the student-run clinics at the Alpha Home and SAMM Transitional Living and Learning Center under faculty supervision. Clinical experiences will be at these clinics and on trips with Frontera de Salud to the Colonias of South Texas. This elective will include required monthly seminars in which students and faculty meet to discuss their experiences in these clinics. Activities in the elective will include working with vulnerable populations, advocating for social justice, reflecting, and writing. Each student fellow will develop a mentorship relationship with at least one faculty member. Students will keep a journal and may elect to conduct some scholarly project with their faculty mentor(s).
INTD 4018. Independent Elective in Ethics. 2 Credit Hours.
In this longitudinal course, students will be required to undertake an independent study into a specific issue in medical ethics or medical humanities. Students will be required to read on research methods in medical ethics as well as literature in their issue of interest, and then to propose and conduct an original study project, a literature review, a position paper, or an ethical analysis of a particular topic or case. Students will be expected to write an academically rigorous final research report of 10 to 15 pages. Students will be encouraged to produce a final paper that can be submitted for publication in a peer-reviewed bioethics or medical humanities journal. Students will be required to meet with the instructor and/or chosen faculty advisor over the course for assistance, guidance, and discussion. (Center for Medical Humanities and Ethics).

INTD 4019. Clinical Ethics. 2 Credit Hours.
Students in this two-week course will have the opportunity to focus on work in clinical ethics consultation. The student will be required to participate in rounds as an ethicist, do in-depth reading on clinical ethics consultation, observe clinical ethics consults, attend ethics committee meetings, and provide an educational seminar to hospital staff on an issue of ethical significance.

INTD 4025. Healthcare Practice and Policy Elective. 0.5 Credit Hours.
The Healthcare Practice Elective is an introductory-level, discussion-based, eight-hour course targeted to fourth-year medical students. The course focuses generally on practice and policy issues of payment methodologies, cost-effectiveness, and access to care.

INTD 4030. Preparing for Global Health Work. 2 Credit Hours.
This is a 2-week multidisciplinary course for 4th-year medical students who are planning future global health experiences, arising in response to enormous interest in international medicine, with increasing numbers of students choosing to spend time overseas during medical school. This preparatory course aims to provide a foundation of practical knowledge in global health to optimize the students’ overseas experiences, facilitate their adaptation to working in different cultural settings, and maximize their impact in the communities where they serve. Topics include chronic and infectious disease, parasitic infection, prioritizing community resources, health disparities, ethical dilemmas, cultural awareness, and professionalism. Course material is presented through a variety of approaches, including lectures, small-group case discussions, laboratory sessions, and online learning modules.

INTD 4048. Art Rounds. 2 Credit Hours.
This is an interactive, interprofessional course that takes students to the McNay Art Museum to learn physical observation skills. Studies demonstrate that increased observational skills translate to improved physical examination skills. Using artwork as patients, students will have the opportunity to learn how to observe details and how to interpret images based on available evidence. Taught jointly by Health Science Center faculty and McNay museum educators, students will have the opportunity to develop and hone their observation, problem solving, and assessment skills. They will also observe, interpret, and give case reports on the original works of art to teach them the skill of verbalizing descriptions of what is seen, and not to accept assumptions made with a first impression.

INTD 4058. Hospice and Palliative Medicine Elective. 4 Credit Hours.
This rotation offers clinical experience in Hospice and Palliative Medicine (HPM). Palliative care provides treatment for seriously ill hospitalized and ambulatory patients and focuses on symptom management, enhancement of function, physical comfort, quality of life, psychosocial support, and communication about the goals of medical care for the patients as well as their families.

INTD 4103. Communication Skills. 0.5 Credit Hours.
To introduce fourth year medical students to the principles of conducting public interviews, presentations and effectively disseminating information to the communities they will serve.

INTD 4104. Improving Patient Outcomes. 0.5 Credit Hours.
This course is designed to increase a student’s knowledge of and skills in identifying systemic problems with health care delivery and patient safety, collecting and analyzing data, generating solutions, presenting results and evaluating peers. The course objectives include facilitating systems thinking, exposing students to the ACGME general competencies (with emphasis on practice-based learning and improvement and systems-based practice), increasing understanding of health care economics and working in teams.

INTD 4105. Medical Jurisprudence. 0.5 Credit Hours.
The course will center on the Texas Medical Practice Act and applicable federal laws.

INTD 4106. Practical Ethics For Healers. 0.5 Credit Hours.
The course is the capstone of the four-year longitudinal curriculum in humanities and ethics. The goals are to reflect upon 1) physician’s values, attitudes, and their intersection with cultural values and attitudes; 2) the historical and moral traditions of medicine in the context of society, politics, spirituality, and the health care system; and 3) the personal identity of a doctor.

INTD 4110. Getting Ready to Teach During Your Residency Program. 0.5 Credit Hours.
The goal of this 8-hour course is to help senior medical students, who will be residents in a few months, develop teaching skills that will enhance the quality of their interactions with students. The course will be conducted in an interactive workshop format to allow participants to practice important teaching skills for residents. These include 1) orienting and priming students to their responsibilities and roles and accepting the personal role of teacher and role model, 2) giving feedback to improve student performance, 3) helping students to improve their patient presentations; the use of questioning, and 4) coaching procedural and technical skills. The participants will practice these skills and receive feedback from their course peers and instructors based on the guidelines for clinical teachers in action with students and provide critiques. Large and small group discussions and role plays will be used to reinforce teaching principles.

INTD 4201. Getting Ready To Teach During Your Residency-RAHC. 0.5 Credit Hours.
The goal of this course is to help senior medical students, who will be residents in a few months, develop teaching skills that will enhance the quality of their interactions with medical students. The course addresses four important residents’ teaching skills: (1), teaching learners with different learning styles, (2) providing constructive feedback, (3), teaching at the bedside, and (4) teaching psychomotor procedures.

INTD 4205. Veritas Mentors in Medicine Longitudinal Elective. 2 Credit Hours.
This is longitudinal elective and the course work requirements will be for 2 week credit and must be complete by March 1st. Evaluation of MIM performance will include feedback from faculty mentors and students.
INTD 4210. School of Medicine Research Elective Level 1. 4 Credit Hours.
Medical research is multidisciplinary and broad in scope. Students will participate in basic, clinical research, quality improvement, or patient safety research projects under the supervision of faculty in the Health Science Center. The goal of this elective is to immerse students in a rich scholarly environment and provide an opportunity to work with research/faculty mentors to fully engage in a scholarly research process from writing the proposal to collecting the data to disseminating results. This elective is open to students who already have an established working relationship with a faculty member and who wish to continue their work, students who wish to establish a new project, and for students who are in the MD-MPH degree program and MD with Distinction in Research Program. Interested students must submit a research elective application which includes the faculty mentor the student will work, to the office of UME, no later than 12 weeks before the research elective is to begin. Applications will be reviewed and confirmed or declined no later than 8 weeks prior to the proposed start date of the elective. Students will be able to 1) Formulate a research question and identify a research methodology to answer that question; 2) understand research ethics and apply an ethical approach to research design, implementation, and dissemination; 3) design a research study and gather quality data; 4) apply and interpret basic biostatistics relevant to the individual research project; 5) write scientific reports. The supervising faculty member will evaluate the performance of the student using a standard, research specific, medical student evaluation form. Students will receive a Pass or Fail summative grade at the conclusion of the 4 week elective. Faculty will be expected to give the student formative feedback after two weeks to assist the student in meeting all expectations to pass the elective.

INTD 4211. School of Medicine Research Elective Level 2. 4 Credit Hours.
Medical research is multidisciplinary and broad in scope. Students will participate in basic, clinical research, quality improvement, or patient safety research projects under the supervision of faculty in the Health Science Center. The goal of this elective is to immerse students in a rich scholarly environment and provide an opportunity to work with research/faculty mentors to fully engage in a scholarly research process from writing the proposal to collecting the data to disseminating results. This elective is open to students who already have an established working relationship with a faculty member and reflects their increasing experience with the research process. As such, this elective is open to students who already have an established working relationship with a faculty member and reflects their increasing experience with the research process. INTD 4211 Level 2 electives is a prerequisite. As with INTD 4211 Level 2, the expectation is that enrolled students will continue with research experiences begun in INTD 4210 Level 1 and INTD 4211 Level 2 including students pursuing the MD-MPH degree and MD with Distinction in Research or produce evidence of past experience knowledge and/or skills which are deemed equivalent to these prerequisites. Interested students must submit a research elective application which includes the faculty mentor the student will work, to the office of UME, no later than 12 weeks before the research elective is to begin. Applications will be reviewed and confirmed or declined no later than 8 weeks prior to the proposed start date of the elective. Students will be able to formulate a research question and identify a research methodology to answer that question; understand research ethics and apply an ethical approach to research design, implementation, and dissemination; design a research study and gather quality data; apply and interpret basic biostatistics relevant to the individual research project; write scientific reports. The supervising faculty member will evaluate the performance of the student using a standard, research specific, medical student evaluation form. Students will receive a Pass or Fail summative grade at the conclusion of the 4 week elective. Faculty will be expected to give the student formative feedback after two weeks to assist the student in meeting all expectations to pass the elective.

INTD 4212. School of Medicine Research Elective Level 3. 4 Credit Hours.
Medical research is multidisciplinary and broad in scope. Students will participate in basic, clinical research, quality improvement, or patient safety research projects under the supervision of faculty in the Health Science Center. The goal of this elective is to immerse students in a rich scholarly environment and provide an opportunity to work with research/faculty mentors to fully engage in a scholarly research process from writing the proposal to collecting the data to disseminating results. Students enrolled in this course will have prior experience with research and ongoing research activities. As such, this elective is open to students who already have an established working relationship with a faculty member and reflects their increasing experience with the research process. INTD 4211 Level 2 electives is a prerequisite. As with INTD 4211 Level 2, the expectation is that enrolled students will continue with research experiences begun in INTD 4210 Level 1 and INTD 4211 Level 2 including students pursuing the MD-MPH degree and MD with Distinction in Research or produce evidence of past experience knowledge and/or skills which are deemed equivalent to these prerequisites. Interested students must submit a research elective application which includes the faculty mentor the student will work, to the office of UME, no later than 12 weeks before the research elective is to begin. Applications will be reviewed and confirmed or declined no later than 8 weeks prior to the proposed start date of the elective. Students will be able to formulate a research question and identify a research methodology to answer that question; understand research ethics and apply an ethical approach to research design, implementation, and dissemination; design a research study and gather quality data; apply and interpret basic biostatistics relevant to the individual research project; write scientific reports. The supervising faculty member will evaluate the performance of the student using a standard, research specific, medical student evaluation form. Students will receive a Pass or Fail summative grade at the conclusion of the 4 week elective. Faculty will be expected to give the student formative feedback after two weeks to assist the student in meeting all expectations to pass the elective.

INTD 5000. Fundamentals Of Biomedical Sciences. 8 Credit Hours.
This core course covers the fundamentals of biochemistry, molecular biology, cell biology, organismal and systems biology, and microbiology and immunology. The course is designed for first-year graduate students matriculating into the Integrated Multidisciplinary Graduate Program.

INTD 5005. Core Course 1: Biochemistry. 2 Credit Hours.
Topics to be covered include: protein structure; properties of enzymes; structure, biosynthesis, and function of lipids; pathways and regulation of carbohydrate metabolism and biosynthesis and regulation of amino acids, nucleotides, and related compounds. Prerequisites: consent of instructor.
INTD 5007. Advanced Cellular And Molecular Biology. 4 Credit Hours.
This course provides an in-depth learning experience that instructs students on the fundamentals of molecular biology and cell biology as well as prepares the student to evaluate and design new research in the cutting-edge areas of modern molecular biology and cell biology. The course combines a didactic program of lectures along with a small group discussion format in which students interact closely with a group of faculty who have active research programs. The course focuses on active areas of research in molecular biology: Chromatin structure, DNA Transcription, DNA Replication and Repair, Recombination, RNA processing and regulation, Protein processing, targeting and degradation and in cell biology: Cell Signaling and Communication, Cell Growth, and Cell Death. Each week, the faculty provide students with didactic lectures on a current research area. Students and faculty will then jointly discuss key publications that serve to bridge the gap between the fundamental underpinnings of the field and the state of the art in that area.

INTD 5008. Lab Rotations. 2 Credit Hours.
This course provides an opportunity for students to participate in research activities in the laboratories of faculty members in different tracks to learn laboratory skills and to gain an introduction to the research fields of faculty members.

INTD 5013. Perio/Pros/Endo/Orth Interdisciplinary Course 1. 1 Credit Hour.
A seminar that brings together the residents and graduate staff from the periodontic, prosthodontic, endodontic and orthodontic postdoctoral programs to share clinically relevant multidisciplinary information. Patient diagnostic evaluations and treatment plans are evaluated in an interactive environment. Selected topics involving new advancements are presented and discussed.

INTD 5020. Dental Biomed Core 1. 4 Credit Hours.
The Biomedical Core Course will provide a multidisciplinary approach to basic science instruction as it relates to the clinical practice of dentistry. Both basic science and clinical science faculty will participate to provide a sound base of material required by each program. Individual programs will supplement the Biomedical Core Course in the basic science areas particular to that discipline. This combination of core instruction with individual supplementation should provide the advanced education student the appropriate background in biomedical science.

INTD 5021. Dental Biomed Core 2. 1 Credit Hour.
This course is a continuation of INTD 5020 Dental Biomedical Core Course 1.

INTD 5023. Research Ethics. 1 Credit Hour.
The goal of this course is to provide the Master’s student an opportunity to gain the essential standards necessary for training and education approved by the National Institute of Health. This course links to the web-based NIH Clinical Research Training On-Line Course http://www.cc.nih.gov/training/training/ct/infor.html for Principal Investigators that is required for all individuals conducting research.

INTD 5030. Introduction To Patient Care. 5 Credit Hours.
The first component of this course is an informatics module so that students become familiar with their new computers and are trained on specific software. In the second and overlapping component, students are assigned to a variety of small-group rotations in a clinical setting to prepare them for patient-care activities. In the first semester, the students are required to become certified in basic life support. They also are required to rotate through a clinic orientation that is followed by a rotation as an assistant in the General Practice Groups. They are expected to follow proper infection control protocol and utilize some basic assisting skills. They also are required to rotate through a head and neck exam activity, followed with a patient activity in the second semester. Second semester activities also include intraoral radiography technique, a clinic component of their periodontics, and school-based prevention courses, a sealant lab and clinic, and radiographic interpretation. Students are evaluated primarily on professional development expectations.

INTD 5040. Fundamentals Of Neuroscience1: Molecular, Cellular, & Developmental Neuroscience. 2 Credit Hours.
This course is intended to introduce students to a broad survey of the basics of molecular, cellular and developmental neuroscience. The course is organized into a series of three modules: biochemical and cellular properties of nervous system cells, development of neuronal systems, and neurotransmission and neuromodulation, which covers the fundamentals of these three areas. Current topics and concepts are discussed in discussion sessions that include student participation. Two components; Neuroscience students register for both PHYL 5041 and INTD 5040.

INTD 5043. Fundamentals Of Neuroscience 2: Systems Neuroscience. 3 Credit Hours.
This course, the second component of our broad survey of the basics of neuroscience, begins at the level of the neural circuit, and guides the students through an understanding of increasingly complex levels of organization and function in the brain. Topics include neurotransmitter systems, sensory and motor function, motivated behavior, regulation and integration of autonomic, behavioral, and emotional responses in the limbic system, higher order cognitive processes, and the neurobiological basis underlying some important psychiatric disorders and their treatment.

INTD 5046. Metanalysis In Cognitive Neuroimaging. 2.5 Credit Hours.
The objective of this course is to familiarize students with human functional brain imaging methods, experimental designs, statistical analyses, inferential strategies, and content. Students are guided through a literature-based research project that culminates in a quantitative metanalysis of a set of studies using similar tasks.

INTD 5047. Neuroanatomy. 2 Credit Hours.
The purpose of this course is to provide students with a practical working knowledge of the structure of both the peripheral and central nervous system. The emphasis will be on the organization of the human brain, although the brains of other species may also be included if appropriate for a specific brain region. The course will look at each of the individual components of the central nervous system in some depth but will also emphasize the complex integration of these various components into a functional brain. The topics covered in the course are specifically designed to mesh in time with those covered in Fundamentals of Neuroscience 2 describing the function of these areas. For this reason, it would be best if these two courses were taken concomitantly. The course will be didactic with digital images, models, and wet specimens included in the course.

INTD 5051. Research Methodology and Evidence-Based Practice. 2 Credit Hours.
This course is designed to introduce dental residents and faculty to critical thinking, research methodology, and evidence-based practice skills.
INTD 5057. Research I Protocol Development and Design. 3 Credit Hours.
The introductory course in research design and protocol development is limited to postdoctoral students enrolled in advanced education programs. It is the 1st of four required core research course for the Masters of Science in Dental Science curriculum. Registration for this course requires permission by the respective program director for a particular Masters of Science education track. The course occurs during the PGI year offered in summer, fall and spring semesters. Credit hours vary between educational tracks for a particular semester from 1-3 hours, with a total of 3 credit hours required for course completion.

INTD 5064. Applied Statistics for Health Care Practitioners. 3 Credit Hours.
This online course focuses on the application of descriptive and inferential statistics in research studies. Students are expected to gain knowledge and skills that will enable them to understand, interpret, and evaluate statistical results; work with a consultant statistician; and use software to enter, analyze, and summarize data. Course requirements include homework assignments, online discussions and/or chats, and periodic projects.

INTD 5066. Laughter is the Best Medicine: An Interdisciplinary Elective about Humor, Healing, and Healthcare. 1 Credit Hour.
This class is a serious look at humor! The physiological and psychological benefits of humor, as well as its therapeutic use with patient interactions, will be explored. Students will learn how to develop and improve their personal use of humor to combat burn out, through techniques to enhance coping skills and stress reduction. Student participation and interaction is integral to the content delivery.

INTD 5067. Introduction To Bioinformatics And Computational Biology. 2 Credit Hours.
The course will be taught by faculty from Biochemistry, Cellular & Structural Biology, CCRI, Periodontics, and faculty from UTSA. The course will be an introduction to methods and tools for working with DNA sequences and protein families, learning basic Unix networking, overview of numerical modeling, systems biology approaches to complex diseases, gene expression analysis, bioinformatics in clinical research, statistical tools for complex datasets, proteomics, structural methods for protein biology, chemoinformatics, molecular modeling, and mathematical model building.

INTD 5074. Topics In Translational Medical Product Development. 1 Credit Hour.
It is crucial to understand the intricate process of translating basic research into market driven products, navigate the complex pathways of intellectual property management and the regulatory affairs of agencies such as the FDA. This course will offer students in biomedical sciences the opportunity to integrate industry-relevant training and experience with their basic science education. The course will explore the marketing and regulatory process by which a biomedical product is developed and brought to commercialization.

INTD 5075. Complementary Healthcare for the Clinician. Credit Hours.
The goal of this elective is to introduce future doctors to practices outside of the classical medical school curriculum that promote an evidence-based approach to wellness. This is so that the medical students of the UTHSC School of Medicine are informed about the reality, evidence and rumor surrounding a variety of commonly used alternative and supplementary healthcare practices. The of this class is not to make the student an expert in areas such as acupuncture or yoga, but to be well informed of the role of such practices as it relates to patient treatment and wellness. To this end, all the classes will have a practical component which will allow the students to experience the alternative modalities in a structured setting.

INTD 5081. Topics In Cardiovascular Research. 1 Credit Hour.
This course is designed to familiarize students with the current literature related to cardiovascular disease. Each week a different research topic selected from the recent literature is presented and discussed. Students are expected to attend and participate in the discussions. In addition, students are required to prepare and present once during the semester. A list of previous and current course presentations will be available online.

INTD 5090. Grad Research Methodology. 2 Credit Hours.
This course is an introduction to methods and techniques used in dental research. Topics will include basic assumptions and concepts of scientific research, selecting research topics, specifying objectives and hypotheses, literature reviews, and experimental design.

INTD 5091. Special Topics. 1-4 Credit Hours.
This is a placeholder course, for which graduate students may register, if they are unable to select a specific track core course at the time of registration. Tracks are: Biology of Aging, Cancer Biology; Cell and Molecular Biology; Genetics, Genomics, & Development; Membrane Biology & Cell Signaling; Metabolism & Metabolic Disorders; Microbiology & Immunology; Molecular Biophysics & Biochemistry; Molecular, Cellular, & Integrative Physiology; Neuroscience; and Pharmacology. The course may be repeated for credit.

INTD 5094. Independent Study. 1-4 Credit Hours.
This elective allows for detailed in-depth study in a specific area of study. The area and mode of study are to be agreed upon by the student and instructor. The course may be repeated for credit when the area of study varies. Clock hours are to be arranged. Prerequisites: Graduate standing and consent of instructor.

INTD 5157. Research 1- Project Proposal. 1 Credit Hour.
The introductory course in research design and protocol development is limited to postdoctoral students enrolled in advanced education programs. It is the 1st of four required core research courses for the Master of Science in Dental Science curriculum. Registration for this course requires permission by the respective program director for a particular Master of Science educational track. The course occurs during the PGI year offered in the spring semester. In fulfillment of the Master of Science degree, registration for this course requires completion of INTD 5257 in the preceding semester.

INTD 5257. Research 1- Project Proposal. 2 Credit Hours.
The introductory course in research design and protocol development is limited to postdoctoral students enrolled in advanced education programs. It is the 1st of four required core research courses for the Master of Science in Dental Science curriculum. Registration for this course requires permission by the respective program director for a particular Master of Science educational track. The course occurs during the PGI year offered in the spring semester.

INTD 5357. Research 1- Project Proposal. 3 Credit Hours.
The introductory course in research design and protocol development is limited to postdoctoral students enrolled in advanced education programs. It is the 1st of four required core research courses for the Master of Science in Dental Science curriculum. Registration for this course requires permission by the respective program director for a particular Master of Science educational track. The course occurs during the PGI year offered in the spring semester.
INTD 6002. Ethics In Research. 0.5 Credit Hours.
This course covers topics relevant to ethics in scientific research. The course is taught on a case-study basis, dealing with real and hypothetical situations relevant to the conduct of scientific research. Topics discussed will include, but will not be limited to: data management, peer review, recognizing scientific misconduct, authorship, and The University of Texas regulations relevant to human and animal research. This course is required of all doctoral graduate students.

INTD 6007. Advanced Cell Biology. 2 Credit Hours.
This course provides an in-depth learning experience that instructs students on the fundamentals of cell biology as well as prepares the student to evaluate and design new research in the cutting-edge areas of modern cell biology. The course combines a didactic program of lectures along with a small-group discussion format in which students interact closely with a group of faculty who have active research programs. The course focuses on active areas of research in cell biology: Cell Signaling and Communication, Cell Growth, and Cell Death. Each week, the faculty jointly discuss key publications that serve the bridge the gap between the fundamental underpinnings of the field and the state of the art in that area. Students and faculty will then jointly discuss key publications that serve to bridge the gap between the fundamental underpinnings of the field and the state of the art in that area.

INTD 6008. Mitochondria & Apoptosis. 1 Credit Hour.
This course will focus in depth on Mitochondria and Apoptosis. Topics will include: Mitochondria and Respiration; Mitochondria and Reactive Oxygen Species; Mitochondria and Apoptosis. It will provide an opportunity for a unique learning experience where the student can prepare to evaluate and design new research in the cutting-edge areas of modern cell biology and molecular biology. Instead of a didactic program of lectures, the entire course comprises a small-group format in which students interact closely with a group of faculty who have active research programs. Each week, faculty will provide students with a brief overview of the research area. Students and faculty will then jointly discuss key publications that serve to bridge the gap between the student's prior understanding of the field and the state of the art in that area.

INTD 6009. Advanced Cell And Molecular Biology. 2 Credit Hours.
This course will provide an in-depth learning experience on the fundamentals of molecular biology as well as prepare the student to evaluate and design new research in the cutting-edge areas of modern molecular biology. The course combines a didactic program of lectures along with a small-group discussion format in which students interact closely with a group of faculty who have active research programs. The course focuses on active areas of research in molecular biology: Chromatin structure, Transcription, DNA Replication and Repair, Recombination, RNA processing and regulation, Protein processing, targeting and degradation. Each week, the faculty provide students with didactic lectures on a current research area. Students and faculty then jointly discuss key publications that serve to bridge the gap between the fundamental underpinnings of the field and the state of the art in that area.

INTD 6010. Evidence Based Dentistry. 1 Credit Hour.
Designed to help students establish an "evidence-based practice" the course will provide students the opportunity to learn the skills necessary to evaluate and select new dental products and clinical procedures. This requires an ability to read and evaluate various sources of knowledge, including articles published in the dental and medical literature, advertisements, Internet sources, and continuing education programs. Lectures and readings are designed to provide a basic understanding of clinical research, epidemiology, and statistical procedures such that dental journal articles and other sources of knowledge can be critically evaluated. The long-range goal is to prepare the student to think critically and to make sound judgments regarding the acceptance of new knowledge, products, and procedures in private practice.

INTD 6011. Introduction To Science Of Teaching. 1 Credit Hour.
This course will provide insight into the basic skills of learning and teaching. Faculty from the Academic Center for Excellence in Teaching and the Graduate School will provide the opportunity to learn the skills, strategies, and experiences for a future in academia and teaching. Topics include lecture presentations on why scientists choose to teach, planning a student learning experience in addition to developing a lecture syllabus, curriculum and teaching portfolio and philosophy. The course is recommended for Supervised Teaching Course INTD 6071.

INTD 6014. Perio/Pros/Endo/Orth Interdisciplinary Course 2. 1 Credit Hour.
This seminar brings together the residents and graduate staff from the periodontic, prosthetic, endodontic and orthodontic postdoctoral programs to share clinically relevant multidisciplinary information. Patient diagnostic evaluations and treatment plans are evaluated in an interactive environment. Selected topics involving new advancements are presented and discussed.

INTD 6033. Cell Signaling Mechanisms. 2 Credit Hours.
This course covers the molecular mechanisms of action of various extracellular mediators including hormones, neurotransmitters, growth factors, cytokines, etc., and cell signaling events. Several areas will be discussed including: (1) mechanisms of mediator synthesis; (2) interaction of mediators with specific receptors; (3) modulation by mediators of various second messenger systems including cyclic nucleotides, inositol phospholipids, calcium, protein phosphorylation, ion flux, etc.; and (4) intra- and intercellular mechanism for regulating mediator action.

INTD 6041. Basic Science Resident Lecture Series In Neurology. 1.5 Credit Hour.
This is an interdisciplinary advanced elective in which students attend 20 lectures, selected from the full offering of daily one-hour lectures comprising the Neurology Residents' Basic Sciences lecture series. These lectures cover a range of topics, such as Epilepsy, Movement Disorders, the Thalamus, Parkinson's Disease, Alzheimer's Disease, Stroke, Sleep, etc., all given from a clinical perspective. In addition, graduate students will have the opportunity to observe or participate in at least two enrichment activities related topically to the lectures they attend, which may include such settings as case presentations, diagnostic training sessions, or clinical observations, again selected from the list of offerings included in the "Neurology Residents" series.
INTD 6043. Structure & Function Of Membrane Proteins. 2 Credit Hours.
This is a course targeted at students within any of the Graduate Tracks. The objective is to provide a broad view, allowing for in-depth consideration in selected areas, of the structure and diverse functions of proteins within a membrane environment. Specific topics covered will include: ion selective channels, large membrane pores, membrane transporters, membrane pumps, and membrane receptors. The format of the course will be didactic lecture followed by student presentations of relevant topics.

INTD 6045. Clinical Practicum In Neuroscience. 1 Credit Hour.
This course will provide students with a brief, but intense and very focused exposure to clinical practice in a relevant area of their choosing, designed and coordinated to best match their interests in close individual collaboration with a clinical mentor in one of the participating components: Neurosurgery, Neurology, Psychiatry, or Endodontics. Representative activities could include participation in case presentation and treatment planning, attending rounds with physicians and residents, direct observation of clinical procedures, patient interviews, follow-up care and outcome review. Potential venues may include inpatient psychiatric ward, sleep clinic, epilepsy clinic, stroke clinic, neurosurgical theater and surgical ICU. In consultation with the course director, students will first select one of the following sub-sections, then design their individually tailored clinical practicum experience with the coordinator for that section.

INTD 6057. Research 2 - Data Collection. 6 Credit Hours.
The course focuses on refining research design, implementation, and data collection. Enrollment limited to postdoctoral students in advanced education programs who have completed successfully both INTD 52057 and INTD 5157, or INTD 5357 in PG1. This is the 2nd of four required core research courses for the Masters of Science in Dental Science curriculum. Registration for this course requires permission by the respective program director for a particular Masters of Science education track. The course occurs during the PG2 year offered in summer, fall and spring semesters. Credit hours vary between educational tracks for a particular semester from 1-6 hours, with a total of 6 credit hours required for course completion.

INTD 6058. Research 3- Data Analysis. 2 Credit Hours.
The course focusses analysis of research data and experimental design. Enrollment limited to postdoctoral students in advanced education programs who have completed successfully INTD 6057. This is the 3rd of four required core research courses for the Masters of Science in Dental Science curriculum. Registration for this course requires permission by the respective program director for a particular Masters of Science education track. The course occurs during the PG2 year offered in summer, fall and spring semesters. Credit hours vary between educational tracks for a semester from 1-2 hours, with a total of 2 credit hours required for course completion.

INTD 6070. Teaching Excellence And Academic Skills (Texas). 1 Credit Hour.
This course, designed to assist graduate students and faculty in acquiring teaching skills, is composed of four modules, each covering a range of topics from lecture and clinical teaching to instructional development to assessing student achievement.

INTD 6088. Clinic Introduction. 4.5 Credit Hours.
The informatics module, one component of this course, is a continuation from the first-year module. Students continue training on a higher level of computer use. The clinic component of the course is a series of small-group rotations for distinct clinic modules including patient assessment, periodontics, caries detection, preventive methods, sealants, pulp testing, local anesthesia, oral surgery, radiographic technique recertification, radiographic interpretation, digital photography, constructing a stabilizing appliance, patient education, infant exam, and opportunities for assisting in various clinics with the Dental School at external sites. At the end of the sophomore year, students will have had the opportunity to become well acquainted with the clinic environment and techniques for initial patient visits scheduled for the summer clinic. Professional development expectations are emphasized in the overall evaluation.

INTD 6090. Seminar. 1 Credit Hour.
This course consists of presentation and discussion of recent advances and research by staff, students, and outside scientists.

INTD 6097. Research. 0.5-9 Credit Hours.
This course is intended for first-year IMGP students only. Students will be required to attend a minimum of 10 departmental (any) seminars during the semester and submit a 100-150 word synopsis of each seminar within two weeks of the seminar.

INTD 6098. Thesis. 4 Credit Hours.
The research thesis course is limited to postdoctoral students in advanced education programs who have completed successfully INTD 6058. This is the 4th of four required core research courses for the Masters of Science in Dental Science curriculum. Registration for this course requires permission by the respective program director from a particular Masters of Science education track. The course is offered in fall, and spring semesters. Credit hours vary between educational tracks for a semester from 1-4. The course occurs during the PG II and PG II year offered in summer, fall, and spring semesters. Credit hours vary between educational tracks for a semester from 1-4 hours, with a total of 4 credit hours required for course completion.

INTD 6115. Perio/Pros/Endo/Ortho Interdisciplinary Course 3. 1 Credit Hour.
This is a seminar that brings together the residents and graduate staff from the periodontic, prosthodontic, endodontic and orthodontics postdoctoral programs to share clinically relevant multidisciplinary information. Patient diagnostic evaluations and treatment plans are evaluated in an interactive environment. Selected topics involving new advancements are presented and discussed.

INTD 6357. Research 2- Data Collection. 3 Credit Hours.
This course focuses on refining research design, implementation, and data collection. Enrollment limited to postdoctoral students in advanced education programs who have completed successfully INTD 5257 and INTD 5157 or INTD 5357 in PG1. This is the 2nd of four required core research courses for the Master of Science in Dental Science curriculum. Registration for this course requires permission by the respective program director for a particular Master of Science education track. The course occurs during the PG2 year offered in fall and spring semesters. In fulfillment of the Master of Science degree, registration for this course requires registration for INTD 6357 for two semesters.
INTD 6657. Research 2- Data Collection. 6 Credit Hours.
The course focuses on refining research design, implementation, and data collection. Enrollment limited to postdoctoral students in advanced education programs who have completed successfully INTD 5257 and INTD 5157 or INTD 5357 in PG1. This is the 2nd of four required core research courses for the Master of Science in Dental Science curriculum. Registration for this course requires permission by the respective program director for a particular Master of Science education track. The course occurs during the PG2 year offered in the spring semester.

INTD 7002. Neurobiology Of Learning And Memory. 1 Credit Hour.
This course will focus on recent findings and topics related to the underlying aspects of the neural basis of learning and memory. Students will have the opportunity to learn about: molecular basis of memory formation, consolidation and retrieval, memory and emotion, associative learning, memory and amnesia, and recognition memory and the medial temporal lobe. The lectures will be interactive and driven by discussions of key journal articles. Each week the first hour will be reserved for lecturing and the second hour will be reserved for a discussion of a journal article.

INTD 7003. Elective in International Medicine. 4 Credit Hours.
This elective serves as a vehicle for students to participate in international medicine rotations. Students will work with a faculty sponsor to identify a program, either a pre-established site or a site discovered by the student which requires faculty approval. This elective includes: 1) The Center for Medical Humanities and Ethics International Scholars Program in India, a competitive program requiring a separate application through the department of Medicine, 2) Shouder to Shoulder program in Latin America, which requires a separate application process and some cost (airfare and small project fee), and is available October, January, and April, 3) Programs in Nicaragua, Mexico, Panama, and Guatemala, and 4) Other sites available through online directory: http://www.globalhealth-cc.org/GHEC/Resources/GHonline.htm. All rotations share a commitment to service learning - medical education and self-reflection that arises out of service to needy populations. Students spend up to 4 weeks (or possibly longer) living in an international site and participating in the care of patients, under the supervision of local and visiting health care providers. The clinical settings and caseload will vary based on the location. There may be opportunities for patient education and emphasis on efforts of local empowerment, aiming to build up the communities in a sustainable way. Students will be expected to integrate themselves into the health care delivery system, and when possible, to strive to make an impact through community education and home visits. For certain Latin American sites, fluency in Spanish is a prerequisite. Students are encouraged to seek similar service learning experiences with underprivileged populations in San Antonio and Border communities prior to or after the rotation. End of rotation "reflection essays" are required and will serve to process student experiences.

INTD 7005. Indian Health Care Preceptorship. 4 Credit Hours.
This elective offers the opportunity for an experience in the health care of Native Americans, coordinated through the Indian Health Service. Most experiences involve both inpatient and outpatient care under direct supervision of board certified family physicians or internists. Educational activities such as conferences, teaching rounds, etc., may vary from site to site. All clinical sites are located outside the state of Texas, including sites in New Mexico, Arizona and Alaska. Early application is recommended. Students completing appropriate application forms may be reimbursed for transportation costs and provided room and board by the Indian Health Service.

INTD 7007. Literature and Medicine. 2 Credit Hours.
In this course you are required to read short stories, poems, and a book of nonfiction. While many of the stories or poems directly address medical or ethical issues, the primary purpose is not to enhance your store of knowledge in these areas, but to promote your appreciation of these works through discussions with other students (online via Blackboard and in class) and with authors and lecturers. Your own contributions to the course - not just the insights you've gained as medical students but the wisdom you bring to the class as human beings - will be critical to its success. We hope that the readings will help you prepare for and process your clinical experiences, furthering your development as a person as well as physician. There will be no "right" or "wrong" answers in this course; rather, our goal is to encourage thoughtful and serious responses to the readings and a lively and fulfilling conversation about them and the issues they raise. Students from Christian Medical College in Vellore, India, will join in our discussion online. MSIV students will receive two credits for completion of this longitudinal elective. All students are expected to participate in class discussions. Grades are earned by reading assignments, attendance at class meetings, and posting primary and secondary responses to posted discussion questions.

INTD 7020. Clinical Patient Management. 5 Credit Hours.
This course is designed to help students develop skills in clinical behavioral dentistry through small group discussions, lectures, and routine patient treatment by application of the principles of coordinating patient care; communicating effectively with colleagues, staff, and faculty; and managing time, records, and environment. The students are required to manage their comprehensive care patients in the Junior Clinic following the principles presented in this course.

INTD 7074. Topics In Translational Medical Product Development. 1 Credit Hour.
It is crucial to understand the intricate process of translating basic research into market driven products, navigate the complex pathways of intellectual property management and the regulatory affairs of agencies such as the FDA. This course will offer students in biomedical sciences the opportunity to integrate industry-relevant training and experience with their basic science education. The course will explore the marketing and regulatory process by which a biomedical product is developed and brought to commercialization.

INTD 7091. Independent Studies. 1-9 Credit Hours.
Students will have the opportunity to use this course to study for the National Board, Part II examination, according to their own need. This course also will serve as a framework for a student returning from a leave of absence or from other protracted time away from classes or clinic. At the conclusion of the course, the enrolled student must demonstrate knowledge and/or skills and/or values consistent with the expectations for entering the level of course study from which the student left. An individualized course of study will be developed once the student is enrolled.

INTD 7099. Dissertation. 1-9 Credit Hours.
Registration for at least two terms is required for Ph.D. candidates. Prerequisite: Admission to candidacy for the Ph.D. degree.

INTD 9090. Interdisciplinary Seminar. 1 Credit Hour.
This seminar course is designed to relate the various dental specialty fields to each other in relation to patient care. Reinforcement of the basic sciences as they are clinically applied will be provided. Students will have an opportunity to extend their clinical knowledge beyond their own specialty areas of training and to become cognizant of current concepts and developments in other specialized fields.
Medicine (MEDI)

Courses

MEDI 3004. Cardiovascular Research. Credit Hours.
Students will participate in original basic or clinical research in collaboration with a faculty member of the Division of Cardiology. Students will contact the Chief of Cardiology to arrange a project and approval for the elective. Faculty supervisor may direct attendance at appropriate division conferences depending upon research project. The supervising faculty member will evaluate the performance of the student using the standard third year medical student evaluation form. Students will receive a “Pass” or “Fail” final grade in the course.

MEDI 3008. Clinical Endocrinology. Credit Hours.
Students will participate in inpatient consultations and outpatient clinics evaluating patients with pituitary and hypothalamic disease, adrenal disease, diabetes mellitus, thyroid disorders, and lipid disorders. Students will perform inpatient consultations at Audie L. Murphy VA Hospital and University Hospital; this will include hospital, rounds 3-4 times weekly with the team and assisting the fellow and residents with patient care activities. Outpatients will be evaluated in weekly endocrine clinics at the VA Hospital, UT Medicine, and Texas Diabetes Institute. Students will be responsible for the initial evaluation of assigned patients, presentation of findings from the history and physical exam, interpretation of endocrine testing, and formation of differential diagnosis. Students will receive a clinical performance evaluation by the supervising fellow and attending. Students are expected to work Monday-Friday with weekend rounds at the discretion of the service attending. The service fellow and faculty will evaluate the clinical performance of the student using the standard third year medical student evaluation form. Students will receive a “Pass” or “Fail” final grade in the course based upon clinical performance.

MEDI 3009. Research In Endocrinology. Credit Hours.
For students with serious research interest in Endocrinology, this elective offers the opportunity to participate in ongoing projects under the supervision of division faculty. Arrange a research project and approval for enrollment in this elective by contacting the Chief-Division of Endocrinology.

MEDI 3018. Clinical Hematology. Credit Hours.
Students will participate in inpatient consultations and outpatient clinics evaluating patients with hematologic disorders, such as anemia, leukopenia, thrombocytopenia, myeloproliferative disorders, myelodysplasia, acute and chronic leukemia, lymphoma, coagulation disorders, and plasma cell dyscrasias. Students will perform inpatient consultations at University Hospital and Audie L. Murphy VA Hospital, which will include daily rounds with the team and assisting the team with fellow patient care activities. There is opportunity for training in blood and bone marrow morphology, and the observation and performance of special clinical and laboratory procedures. Students are expected to work Monday - Friday. One student will be assigned to the University Hospital service and one student to the VA Hospital service. Students will attend division conferences at the direction of faculty attending, which may include Hematology Clinical Conference, Hematology/Pathology Conference, Bone Marrow Transplant Conference, and Coagulation Conference. The team fellow and faculty attending will evaluate the clinical performance of the student using the standard third year medical student evaluation form.

MEDI 3019. Research In Hematology/Oncology. Credit Hours.
Students will participate in ongoing basic or clinical research projects under the supervision of division faculty. There may be an opportunity to combine the research project with some clinical experience through special arrangement with the supervising faculty member. Contact the department to develop the research project and obtain approval for the elective. The supervising faculty member will evaluate the performance of the student using the standard third year medical student evaluation form. Students will receive a “Pass” or “Fail” final grade in the course.

MEDI 3022. Research In Infectious Diseases. Credit Hours.
Students will participate in ongoing basic or clinical research projects under the supervision of division faculty. For the students who wish to learn research techniques in Infectious Disease, an individual project will be designed that may involve studies of antimicrobial activity, animal models of infection, host defense mechanisms, immunologic aspects of infectious disease, or application of molecular biology to studies of pathogens. Students will learn research methodology pertinent to measurement of antigens and antibodies; and the molecular biology and immunobiology of fungal, bacterial, and chlamydia infections. Research may be directed toward in vitro work, work with laboratory animals, or direct clinical investigation. In addition, students may review local clinical experience with a given infectious disease process (e.g. tuberculosis meningitis, amebiasis, endocarditis, etc.) with the goal of preparing a paper for publication. The supervising faculty member will evaluate the performance of the student using the standard third year medical student evaluation form. Students will receive a “Pass” or “Fail” final grade in the course.

MEDI 3023. Clinical Infectious Disease. Credit Hours.
Infectious diseases cross all subspecialty lines, especially because antibiotics, antifungal and antiviral agents are employed widely throughout medical practice. This elective will provide practical experience in the diagnosis and management of patients with Infectious diseases. There will be particular emphasis upon the Pharmacology and pharmacodynamics of antimicrobial agents, selection of appropriate diagnostic tests and therapeutic agents, and the appropriate orientation of the clinician to hospital microbiology laboratories. Students will participate in patient consultations at University Hospital and Audie Murphy VA Hospital, which will include daily rounds with the team and assisting the team fellow with patient care activities. There may be an opportunity to participate in the evaluation of patients in the immunosuppression Clinics at VA Hospital or the Robert B Green Clinic. Students are expected to work Monday-Friday. Students will attend division conferences at the direction of the faculty attending. The team fellow and faculty attending will evaluate the clinical performance of the student using the standard third year medical student evaluation form. Students will receive a “Pass” or “Fail” final grade in the course based upon clinical performance.
MEDI 3025. Clinical Nephrology. Credit Hours.
Students will participate in the inpatient consultation service, outpatient clinics, acute dialysis unit and renal biopsy program. A variety of acid-base, fluid and electrolyte disorders are seen in addition to the entire spectrum of renal diseases, including acute and chronic renal failure, proteinuria, and hypertension. Student exposure to chronic dialysis and renal transplantation programs is also possible. Clinical sites include inpatient consultations and daily rounds at University Hospital and Audie Murphy VA Hospital and clinics at the VA Hospital (Tuesday afternoons) and Texas Diabetes Institute (Friday mornings). Students are expected to work Monday - Friday. Mandatory attendance is expected at the following: Conferences: Renal Physiology/ Pathophysiology, Renal Grand Rounds, and Clinical Journal Club. The team fellow and faculty attending will evaluate the clinical performance of the student using the standard third year medical student evaluation form.

MEDI 3028. Research In Nephrology. Credit Hours.
Students will participate in ongoing basic or clinical research projects under the supervision of division faculty. Students will have the opportunity to learn some of the fundamental techniques of renal physiology and cell biology. The supervising faculty member will evaluate the performance of the student using the standard third year medical student evaluation form. Students will receive a “Pass” or “Fail” final grade in the course.

MEDI 3034. Clinical Oncology. Credit Hours.
Students will participate in the clinical activities of the Division of Medical Oncology with experience on the consultation service at University Hospital service or the VA Hospital service plus outpatient experience in the Oncology Clinics. The elective experience provides exposure to management of common and complex oncology problems, such as cancers of the breast, colon, lung, and prostate; acute and chronic leukemias, and lymphoma. Students will also learn about important issues such as expected to work Monday - Friday. Attendance at division conferences is at the direction of the supervising faculty. The team fellow and faculty attending will evaluate the clinical performance of the student using the standard third year medical student evaluation form. Students will receive a “Pass” or “Fail” final grade in the course based upon clinical performance.

MEDI 3043. Clinical Chest Disease Consultation Service. Credit Hours.
Students will participate in inpatient consultations and outpatient clinics evaluating patients with acute and chronic lung disease. Principles and methods involving respiratory therapy, antimicrobial therapy, and evaluation of common pulmonary disorders will be emphasized. Students will perform inpatient consultations at University Hospital and Audie L. Murphy VA Hospital, which will include daily rounds with the team and assisting the team fellow and residents with patient care activities. Students will be exposed to various diagnostic methods including radiographic, radionuclide, bronchoscopy, pulmonary function tests, and pleural biopsy techniques, and will be expected to review key topics in the literature. Students are expected to work Monday-Friday. Attendance at division conferences is at the direction of the supervising faculty. The team fellow and faculty attending will evaluate the clinical performance of the student using the standard third year medical student evaluation form. Students will receive a “Pass” or “Fail” final grade in the course based upon clinical performance.

MEDI 3046. General Medicine Ward Rotation. Credit Hours.
This elective offers the opportunity to further develop knowledge and clinical skills in diagnosis and management of patients admitted to the general medicine ward service at University Hospital, Audie L. Murphy VA Hospital and San Antonio Military Medical Center. One to two third year medical students will be assigned to each ward team. Students are expected to work six days per week with one day off every week and attend designated noon conferences. The team resident and faculty attending will evaluate the clinical performance of the student using the standard third year medical student evaluation form. Students will receive a “Pass” or “Fail” final grade in the course based upon clinical performance.

MEDI 3049. Clinical Rheumatology. Credit Hours.
Students will participate in inpatient consultations and outpatient clinics evaluating patients with rheumatologic and autoimmune disorders, such as rheumatoid arthritis, systemic lupus erythematosus, vasculitis, crystal-associated arthritis, ankylosing spondylitis, and connective tissue disorders. Students will perform inpatient consultations at University Hospital and Audie L. Murphy VA Hospital, which will include daily rounds with the team and assisting the team fellow with patient care activities. Outpatient clinics are held at the VA Hospital and Robert B. Green Clinic. Students are expected to work Monday -Friday. Students will attend division conferences at the direction of the faculty attending. The team fellow and faculty attending will evaluate the clinical performance of the student using the standard third year medical student evaluation form. Students will receive a Pass or Fail final grade in the course based upon clinical performance.

MEDI 3068. Geriatric and Palliative Medicine. Credit Hours.
This rotation offers clinical experience in geriatric internal medicine, and students work under the close supervision of the fellow and geriatric and palliative, hospice care medicine. Students participate in the outpatient clinic, academic nursing home, home-based primary care visits, and didactic educational activities. Students also have the opportunity to exposure to geriatric psychiatry medicine in the outpatient geriatric memory clinic. In addition to geriatric exposure, the students will assess, treat, and manage patients with palliative care and hospice needs. Clinical sites include the community living center / academic nursing home (15%), new patient clinic (10%), memory clinic (10%), and home visits (10%). Two hour didactic sessions are and pharmacotherapy. Students are expected to work Monday-Friday. Attendance at division conferences is at the direction of the supervising faculty. The team fellow and faculty attending will evaluate the clinical performance of the student using the standard third year medical student evaluation form.

MEDI 3069. Research in Aging. Credit Hours.
Students will participate in ongoing basic or clinical research projects under the supervision of division faculty and faculty in the department of Physiology. The supervising faculty member will evaluate the performance of the student using the standard third year medical student evaluation form. Students will receive a “Pass” or “Fail” final grade in the course. Contact the Division Chief to arrange projects and approval for enrollment in the elective.
MEDI 3078. HIV/AIDS Inpatient Service. Credit Hours.
This elective on the HIV/AIDS Medicine Team 6 at University Hospital offers the opportunity to assume direct patient responsibility under the supervision of an Infectious Disease fellow and faculty attending. This rotation is for persons interested in obtaining extensive experience in HIV Disease. It provides practical exposure to the diagnosis and treatment of HIV complications such as Pneumocystis infections, CMV, toxoplasmosis, invasive fungal infections, mycobacterial disease, and oncological and neurological complications of this disease. Learning objectives will be obtained through a team approach to patients with HIV infection involving nurses, physicians and other staff and will include a formal didactic teaching series. Students are expected to participate in daily hospital rounds, discharge clinic and Infectious Diseases conferences. Students will be assigned patients to care with direct supervision by the Internal Medicine resident and ID fellow. Students will follow an average of 2-3 patients, provide comprehensive patient care from admission to discharge, and participate in procedures. Students are expected to work 5-6 days per week with weekend duties as the discretion of the team attending. Attendance at division conferences is at the direction of the supervising faculty. The team fellow and faculty attending will evaluate the clinical performance of the student using the standard third year medical student evaluation form. Students will receive "Pass" or "Fail" final grade in the course based upon clinical performance.

MEDI 3079. Outpatient General Internal Medicine. Credit Hours.
This elective offers the opportunity to experience the office practice of general internal medicine under the supervision of a faculty member in academic practice and private practice in the community. The student will join the physician’s practice and participate in hospital rounds (private setting) and evaluation of patients in office visits at community clinics, the South Texas Veterans Health System, and University Health System. There may be the opportunity to include clinical experience in Palliative Medicine consultations and clinic and in Geriatric consultations and clinic, depending upon the student’s interest and faculty availability. Students are expected to work Monday - Friday. The attending physicians will evaluate the clinical performance of the student using the standard third year medical student evaluation form. Students will receive a "Pass" or "Fail" final grade in the course based upon clinical performance.

MEDI 3085. General Medicine Ward Subinternship - RAHC. Credit Hours.
This elective offers the opportunity to further develop knowledge and clinical skills in diagnosis and management of patients admitted to the general medicine ward service at Valley Baptist Medical Center. One - two third year medical students will be assigned to each ward team, the Su Clinica Team or the Hospital Team. Students are expected to attend designated noon conferences that are scheduled by the internal Residency Program or the Clerkship program. The team resident and faculty attending will evaluate the clinical performance of the student using the standard third year medical student evaluation form. Students will receive a "Pass" or "Fail" final grade in the course based upon clinical performance.

MEDI 3102. Clinical Cardiology. Credit Hours.
Students will participate in inpatient consultations and outpatient clinics evaluating patients with cardiovascular disease. Students will perform in patient consultations at University Hospital and Audie L. Murphy VA Hospital, which will include daily rounds with the team and assisting the team fellow and resident with patient care activities. Students will also have learning opportunities in ECG interpretation, observation and interpretation of non-invasive cardiac testing such as exercise treadmill testing and echocardiograms, and possibly, observation in the cardiac catheterization laboratory. In addition to daily consultation rounds on patients in the hospital and participation in the cardiology clinic, students will be expected to attend Division of Cardiology conferences. Students are expected to work Monday-Friday with weekend rounds at the discretion of the service attending. The service fellow and attending will evaluate the clinical performance of the student using the standard third year medical student evaluation form. Students will receive a "Pass" or "Fail" final grade in the course based upon clinical performance.

MEDI 3105. Medicine Clerkship. 14 Credit Hours.
The objectives of this clinical experience are to provide opportunities for students to develop patient evaluation skills, productive self-learning techniques, a sound pathophysiological approach to medical disease, a concern and awareness for the patient’s needs, and personal professional behavior. The student spends eight weeks, divided into two 4-week blocks, assigned to the inpatient General Medicine Service. An additional four weeks are spent in outpatient services. Bedside clinical teaching is emphasized by asking the student to perform patient evaluations, to contribute to the care of selected patients, and to participate in the clinical rounds of the services. During this clerkship the student receives intensive instruction from the Internal Medicine house staff and faculty. In addition, the student is expected to undertake independent patient-oriented reading and to systematically review pertinent information introduced during the preclinical years. Finally, students attend a series of clinical conferences including medical grand rounds, morbidity and mortality conferences, clinical subspecialty conferences, and organized courses in electrocardiography and nutrition. Successful completion of all required preclinical courses is prerequisite to enrollment in any of the clinical clerkships. The student spends eight weeks, divided into two 4-week blocks, assigned to the inpatient General Medicine Service. An additional four weeks are spent in outpatient services. Bedside clinical teaching is emphasized by asking the student to perform patient evaluations, to contribute to the care of selected patients, and to participate in the clinical rounds of the services. During this clerkship the student receives intensive instruction from the Internal Medicine house staff and faculty. In addition, the student is expected to undertake independent patient-oriented reading and to systematically review pertinent information introduced during the preclinical years. Finally, students attend a series of clinical conferences including medical grand rounds, morbidity and mortality conferences, clinical subspecialty conferences, and organized courses in electrocardiography and nutrition.
MEDI 3110. Clinical Dermatology. Credit Hours.
This elective is recommended for students with a serious interest in Dermatology, and for students intent upon further training in Internal Medicine, Family Medicine and Pediatrics. Students will participate in inpatient consultations and outpatient clinics evaluating patients with dermatologic disease. Students will perform inpatient consultations at University Hospital and Audie L. Murphy VA Hospital, which will include daily rounds with the team and assisting the team residents with patient care activities. Students are expected to work Monday-Friday with weekend rounds at the discretion of the service attending. Student will attend teaching conferences every Wednesday (all day) and Friday afternoons. This didactic time for students and residents includes lectures, journal reviews, text reviews, and clinical kodachrome sessions. Each student is required to do a 10-minute power point presentation on a dermatologic topic of choice. The service resident and faculty attending will evaluate the clinical performance of the student using the standard third year medical student evaluation form. Students will receive a "Pass" or "Fail" final grade in the course based upon clinical performance.

MEDI 3204. Geriatrics/End Of Life Rotation - RAHC. Credit Hours.
This rotation offers clinical experience in both geriatric medicine and palliative medicine. For the geriatric portion, the student will participate in the care of patients in a clinic, nursing home, home health agencies, and will have didactic educational activities. For the end-of-life portion, the student will work with professionals from different disciplines involved in a hospice-affiliated with the Valley Baptist Medical Center. The faculty attending will evaluate the clinical performance of the student using the standard third year medical student evaluation form. Student will receive "Pass" or "Fail" final grade in the course based upon clinical performance.

MEDI 3206. Office Cardiology-RAHC. Credit Hours.
The student will work with a cardiologist in solo or group practice and will participate in the evaluation of patients with cardiac symptoms and disease. The student will have full-time participation (Monday-Friday) in clinics, consultations, ECG interpretation, and possible observation in the cardiac catheterization laboratory. The student is expected to learn the pathophysiological approach to the diagnosis and management of disease of the cardiovascular physical exam, and interpretation of diagnostic tests. The faculty attending will evaluate the clinical performance of the student using the standard third year medical student evaluation form. Students will receive a "Pass" or "Fail" final grade in the course based upon clinical performance.

MEDI 3207. Office Endocrinology-RAHC. Credit Hours.
The student will work with an endocrinologist in solo or group practice and will participate in the evaluation of patients with endocrine disease. The student will have full-time participation (Monday-Friday) in clinics, consultations, and endocrine test interpretation. The student is expected to learn the diagnosis and management of disease of the endocrine system, patient assessment through a detailed history and physical exam, and interpretation of tests. Exposure to patients with pituitary and hypothalamic disease, thyroid disease, abnormalities in calcium metabolism, adrenal disease, diabetes, and lipid disorders may be seen. Students will be responsible for the initial evaluation of assigned patients, presentation of findings from the history and physical exam, interpretation of endocrine testing, and formation of differential diagnosis. Students will receive a clinical performance evaluation by the supervising attending. Students are expected to work Monday-Friday with weekend rounds at the student using the standard third year medical student evaluation form. Students will receive a "Pass" or "Fail" final grade in the course based upon clinical performance.

MEDI 3208. Office Gastroenterology-RAHC. Credit Hours.
The student will work with a gastroenterologist in solo or group practice in Harlingen. Students will perform appropriately focused history and physical exam; prepare written and verbal presentations, interpret laboratory data, and develop differential diagnosis and management plan on all assigned patients. Students will participate in inpatient consultations and outpatient clinics evaluating patients with disorders of the gastrointestinal tract, biliary tract, pancreas, and liver. Students will perform inpatient consultations, which will include daily rounds with the team and assisting with patient care activities. Students will also have the opportunity to observe endoscopic procedures and will become procedures, as well as the proper preparation of the patient for the procedure. Students are expected to work Monday-Friday. The attending faculty will base the student’s grade on the student’s clinical performance.

MEDI 3210. Office General Medicine - RAHC. Credit Hours.
This elective offers the opportunity to experience the office practice of general internal medicine under the supervision of a faculty member in private practice in the community. The student will join the physicians practice and participate in hospital rounds (private setting) and evaluation of patients at office visits. Students are expected to work Monday-Friday with a possible mixture of day and evening clinics. The students will independently evaluate patients, present findings to the attending physician, document notes in the medical record, and participate in the management discussion and any procedures related to the patient. Students will have exposure to community resources for special problems encountered by the patients in obtaining health care and be able to identify different types of medical delivery systems. The attending physicians will evaluate the clinical performance of the student using the standard third year medical student evaluation form. Student will receive a "Pass" or "Fail" final grade in the course based upon clinical performance.

MEDI 3211. Office Nephrology-RAHC. Credit Hours.
The student will work a nephrologist in a solo or group practice and will participate and will participate in the evaluation of patients with a variety of renal diseases including hypertension, acute and chronic renal failure, acid-base disturbances, fluid and electrolyte disturbances, and glomerular disease. The student will have full-time participation (Monday-Friday) in clinics, consultations, special diagnostic procedures, and the dialysis unit. Students will perform appropriately focused history and physical exam, prepare written and verbal presentations, interpret laboratory data, and develop differential diagnosis and management plan on all assigned patients. The faculty attending will evaluate the clinical performance of the student using the standard third year medical student evaluation form. Student will receive a "Pass" or "Fail" final grade in the course based upon clinical performance.
MEDI 3213. Office Pulmonary Medicine - RAHC. Credit Hours.
The student will work with a pulmonologist in solo or group practice, and will participate in the evaluation of patients with acute and chronic lung diseases. The student will have full-time participation Monday-Friday in clinics, inpatient hospital consultations, and various diagnostic methods. Students will perform appropriately focused history and physical exam; prepare written and verbal presentations, interpret laboratory data, and develop differential diagnosis and management plan on all assigned patients. The student will be expected to become proficient in the interpretation of Chest x-rays, pulmonary function tests, the evaluation of common pulmonary disorders, and the principles and methods of respiratory therapy, antimicrobial therapy, and arterial blood gases. The student may also have exposure to bronchoscopy, thoracentesis, and pleural biopsy, and radionuclide testing and will be expected to review key topics in the literature. The faculty attending will evaluate the clinical performance of the student using the standard third year medical student evaluation form. Students will receive a "Pass" or "Fail" final grade in the course based upon clinical performance.

MEDI 3214. Office Rheumatology-RAHC. Credit Hours.
The student will work with a rheumatologist in solo or group practice and will participate in the evaluation of patients with rheumatologic and autoimmune disorders, such as rheumatoid arthritis, systemic lupus erythematosis, vasculitis, crystal-associated arthritis, ankylosing spondylitis, and connective tissue disorders. The student will have full-time participation (Monday-Friday) in clinics, consultations and special diagnostic techniques. Students will perform appropriately focused history and physical exam, prepare written and verbal presentations, interpret laboratory data, and develop differential diagnosis and management plan on all assigned patients. The faculty attending will evaluate the clinical performance of the student using the standard third year medical student evaluation form. Students will receive a Pass or Fail final grade in the course based upon clinical performance.

MEDI 3216. Office Hematology-Oncology - RAHC. Credit Hours.
Students will work with a hematologist/oncologist in solo or group practice in Harlingen. Students will participate in outpatient clinics and consultations evaluating patients with hematologic disorders, myelodysplasia, acute and chronic leukemia, lymphoma, coagulation disorders, and plasma cell dyscrasias. Students will have the opportunity to learn the interpretation of special clinical and laboratory procedures. Students will have the opportunity to learn the interpretation of special clinical and laboratory procedures. Students will have to appropriately perform focused history and physical exam, prepare written and verbal presentations, interpret laboratory data, and develop differential diagnosis and management plan on all assigned patients. Students are expected to work Monday-Friday. The faculty attending will evaluate attending will evaluate the clinical performance of the student using the standard third year medical student evaluation form. Students will receive a "Pass" or "Fail" final grade in the course based upon clinical performance.

MEDI 3314. Research In Gastroenterology. Credit Hours.
Students will participate in ongoing basic or clinical research projects under the supervision of division faculty. Contact the student research faculty mentor to set up the project. The supervising faculty member will evaluate the performance of the student using the standard third year medical student evaluation form. Students will receive a "Pass" or "Fail" final grade in the course.

MEDI 3315. Clinical Gastroenterology. Credit Hours.
Students will participate in inpatient consultations and outpatient clinics evaluating patients with disorders of the gastrointestinal tract, biliary tract, pancreas, and liver. Students will perform inpatient consultations at University Hospital and Audie L. Murphy VA Hospital, this will include daily rounds with the team and assisting the team fellow and residents with patient care activities. Students will also have the opportunity to observe procedures in the hospital Endoscopy lab, and will become familiar with the application, indications, contraindications, and complications of gastroenterological procedures, as well as the proper preparation of the patient for the procedure. Two students will be assigned to the VA consult service and two to the UH consult service. Students are expected to work Monday-Friday. Students will attend division conferences at the direction of the faculty attending. The team fellow and faculty attending will evaluate the clinical performance of the student using the standard third year medical student evaluation form. Students will receive a Pass or Fail final grade in the course based upon clinical performance.

MEDI 4000. Special Topic. 4 Credit Hours.
This is a self-designed course created by both the student and the department to cover a specific topic. A Course Approval Form must be completed along with documentation of the designed course description.

MEDI 4002. Clinical Cardiology. 4 Credit Hours.
Students are required to participate in inpatient consultations and outpatient clinics evaluating patients with cardiovascular disease. Students are required to perform inpatient consultations at University Hospital and Audie L. Murphy V. A. Hospital. Students are required to perform appropriately focused history and physical exam, prepare written and verbal presentations, interpret laboratory data, and develop differential diagnosis and management plan on each assigned patient. Students are required to also have learning opportunities in ECG interpretation, the cardiac catheterization laboratory, and non-invasive test interpretation such as exercise treadmill testing and echocardiograms. Students must meet expectations of clinical performance and professional behavior based on School of Medicine evaluation for fourth year students to "pass" course.

MEDI 4004. Cardiovascular Research. 4 Credit Hours.
Students can participate in original research, basic or clinical, in collaboration with a faculty member of the Division of Cardiology. Students must meet expectations of research responsibilities based on School of Medicine evaluation for fourth year students to "pass" course.

MEDI 4006. Coronary Care Unit - Subinternship - VA. 4 Credit Hours.
This subinternship is designed to prepare students for the intense and responsible role of the intern. The subintern is an integral member of the team and is required to participate in all team activities and participate in all medical care for his/her patients, under the supervision of the Internal Medicine resident, Cardiology fellow, and Cardiology attending. Students are required to care for patients in the CCU and Telemetry ward. The student will be involved in the inpatient care of patients with cardiac disease, including critically ill patients needing hemodynamic and respiratory monitoring and ventilation support. Students must meet expectations of clinical performance and professional behavior based on School of Medicine evaluation for fourth year students to "pass" course.
MEDI 4007. Cardiology Care Unit Sub-Internship-SAMMC. 4 Credit Hours.

This subinternship is designed to prepare students for the intense and responsible role of the intern. The subintern is an integral member of the team and is required to participate in all team activities and participate in all medical care for his/her patients, under the supervision of the Internal Medicine resident, Cardiology fellow, and Cardiology attending. Students are required to care for patients in the CCU and Telemetry ward. The student's clinical performance will be evaluated by the supervising attending. Students are required to participate in the care of patients with a wide spectrum of acute and chronic cardiovascular problems. Emphasis is placed on mastering basic physical assessment through history and detailed cardiovascular physical examination and the interpretation of non-invasive and invasive cardiac testing. Students will have exposure to the catheterization laboratory, M-mode, 2-D, and Doppler echocardiography, color flow imaging, exercise testing, and 24-hour dynamic ECG rhythm monitoring and analysis. No late drops will be accepted. Students must meet expectations of clinical performance and professional behavior based on School of Medicine evaluation for fourth year students to "pass" course.

MEDI 4008. Clinical Endocrinology. 4 Credit Hours.

Students are required to participate in inpatient consultations and outpatient clinics evaluating patients with pituitary and hypothalamic disease, adrenal disease, diabetes mellitus, thyroid disorders, and lipid disorders. Students are required to perform inpatient consultations at Audie Murphy VA Hospital and University Hospital. Outpatients will be evaluated in weekly endocrine clinics at the VA Hospital and Texas Diabetes Institute. Students will be responsible for the initial evaluation of assigned patients, presentation of findings from the history and physical exam, interpretation of endocrine testing, and formation of differential diagnosis. If rotation is done as the Ambulatory selective, the student is required to prepare a written essay based upon specific course objectives concerning systems of care. Essays must be submitted on the last day of the rotation and are required to receive a passing grade in the course. Students must meet expectations of clinical performance and professional behavior based on School of Medicine evaluation for fourth year students to "pass" course.

MEDI 4009. Calcium & Bone Metabolism Research. 4 Credit Hours.

This research elective is recommended for students with serious research interests. It offers the opportunity to participate in ongoing projects under the supervision of division faculty. Students must meet expectations of research responsibilities based on School of Medicine evaluation for fourth year students to "pass" course.

MEDI 4010. Clinical Dermatology. 4 Credit Hours.

This elective is recommended for students with a serious interest in Dermatology, and for those intent upon further training in Internal Medicine, Family Medicine, and Pediatrics. It offers considerable clinical experience in both outpatient clinics and supervised inpatient consultations. Students rotating at UTHSCSA are required to attend teaching conferences every Wednesday (all day) and Friday afternoons. This didactic time for students and residents includes lectures, journal reviews, text reviews, and clinical Kodachrome sessions. Didactic sessions will be held separately at WHMC and BAMC. Each student is required to do a 10-minute PowerPoint presentation on a topic of choice that is both dermatology related and fits in with choice of residency. Students must meet expectations of clinical performance and professional behavior based on School of Medicine evaluation for fourth year students to "pass" course.

MEDI 4012. Clinical Endocrinology - WHMC. 4 Credit Hours.

Students will have exposure to a very active clinical endocrinology consultation service, outpatient endocrine clinic, and the performance and interpretation of diagnostic procedures in endocrinology. Students must perform appropriately focused history and physical exams, prepare written and verbal presentations, interpret laboratory data, and develop differential diagnosis and management plan on all assigned patients. Clinical performance will be evaluated by supervising attending. No late drops will be accepted. Students must meet expectations of clinical performance and professional behavior based on School of Medicine evaluation for fourth year students to "pass" course.

MEDI 4013. Clinical Epidemiology Research. 4 Credit Hours.

Students will have the opportunity to participate in ongoing epidemiological surveys in diverse populations. Topics covered include population and genetic epidemiologic studies sampling, family studies (including studies of candidate genes and systematic genome searches), design of epidemiological instruments, quality control of field operations, documentation of health outcomes, management of large data bases, and data analysis including complex segregation and linkage analysis. Students must meet expectations of research responsibilities based on School of Medicine evaluation for fourth year students to "pass" course.

MEDI 4014. Gastrointestinal Research. 4 Credit Hours.

Students are required to participate in ongoing research projects under the supervision of division faculty. Supervising faculty will complete evaluations at end of the project. Students must meet expectations of research responsibilities based on School of Medicine evaluation for fourth year students to "pass" course.

MEDI 4015. Clinical Gastroenterology. 4 Credit Hours.

Students are required to participate in inpatient consultations at Audie L. Murphy V. A. Hospital (ALMVHAH) and University Hospital, outpatient clinics at ALMVHAH and University Health System, and special gastrointestinal diagnostic testing under the supervision of Internal Medicine residents, GI fellows, and GI Faculty. Students are required to participate in the independent evaluation of patients with disorders of the gastrointestinal tract, pancreas, and liver. Students are required to become familiar with the application, indications, contraindications, and complications of gastroenterological procedures, as well as the proper preparation of the patient for the procedure. Students are required to perform appropriately focused history and physical exams, prepare written and verbal presentations, interpret laboratory data, and develop differential diagnosis and management plans on all assigned patients. Students must meet expectations of clinical performance and professional behavior based on School of Medicine evaluation for fourth year students to "pass" course.

MEDI 4017. Gastroenterology - SAMMC. 4 Credit Hours.

Students will be exposed to clinical gastroenterology with didactic instruction, and will work in conjunction with house staff as part of the primary care team. Students are required to perform appropriately focused history and physical exams, prepare written and verbal presentations, interpret laboratory data, and develop differential diagnosis and management plan on all assigned patients. Students will have exposure to the full range of special diagnostic procedures including observation of upper endoscopy, endoscopic ultrasound, colonoscopy, flexible sigmoidoscopy, endoscopic retrograde cholangiopancreatography (ERCP), percutaneous liver biopsy, laparoscopy, and related techniques. No late drops will be accepted. Students must meet expectations of clinical performance and professional behavior based on School of Medicine evaluation for fourth year students to "pass" course.
MEDI 4018. Clinical Hematology. 4 Credit Hours.
The consultation service includes clinical exposure to inpatient consultations, conferences, and outpatient clinics. There is opportunity for training in blood and marrow morphology, observation, and performance of special clinical and laboratory procedures. Students are responsible for the following on all assigned patients: history and physical examination, admission/progress notes, doctor's orders, interpretation of laboratory data, formation of differential diagnosis, assessment, and management plan. Students on both services are required to attend conferences including Hematology Clinical Conference, Hematology/Pathology Conference, Bone Marrow Transplant Conference, and Coagulation Conference. Students must meet expectations of clinical performance and professional behavior based on School of Medicine evaluation for fourth year students to "pass" course.

MEDI 4019. Hematology Research. 4 Credit Hours.
Students are required to participate in ongoing clinical or basic research; individual projects encouraged with written report or results required. Opportunity may be provided for combined clinical and research experience in individual cases by special arrangement. Students must meet expectations of clinical performance and professional behavior based on School of Medicine evaluation for fourth year students to "pass" course.

MEDI 4022. Infectious Disease Research. 4 Credit Hours.
For the students who wish to learn research techniques in Infectious Disease, an individual project will be designed that may involve studies of antimicrobial activity, animal models of infection, host defense mechanisms, immunologic aspects of infectious diseases, or application of molecular biology to studies of pathogens. We are prepared to teach research methodology pertinent to measurement of antigens and antibodies; and the molecular biology and immunobiology of fungal, bacterial, and chlamydia infections. Research may be directed toward in vitro work, work with laboratory animals, or direct clinical investigation. In addition, students may review local clinical experience with a given infectious disease process (e.g. tuberculosis, meningitis, amebiasis, endocarditis, etc.) with the goal of preparing a paper for publication. Students must meet expectations of research responsibilities based on School of Medicine evaluation for fourth year students to "pass" course.

MEDI 4024. Infectious Disease - SAMMC. 4 Credit Hours.
The course will provide students the opportunity to obtain a broad experience in the management of infectious diseases. The spectrum of illness ranges from HIV infection to chronic osteomyelitis. Students are required to care for patients with primary infectious disease problems, or patients with major illnesses in whom an infectious complication has arisen, under the direction of the consultation resident, with supervision from the fellow and staff on the Infectious Disease Service. Students are required to perform appropriately focused history and physical exams, prepare written and verbal presentations, interpret laboratory data, and develop differential diagnosis and management plans on all assigned patients. Basic bacteriological techniques and specific techniques of bacteriological identification and sensitivity testing are reviewed. No late drops will be accepted. Students must meet expectations of clinical performance and professional behavior based on School of Medicine evaluation for fourth year students to "pass" course.

MEDI 4025. Clinical Nephrology. 4 Credit Hours.
Students are required to participate in the consultation service, outpatient clinics, conferences, acute dialysis unit, and renal biopsy program. A variety of acid-base fluid and electrolyte disorders are seen in addition to the entire spectrum of renal diseases. Student exposure to chronic dialysis and renal transplantation programs is also possible. Students perform appropriately focused history and physical exam, prepare written and verbal presentations, interpret laboratory data, and develop differential diagnosis and management plans on all assigned patients. If rotation is done as the Ambulatory Selective, the student is required to prepare a written essay based upon specific course objectives concerning systems of care. Essays must be submitted on the last day of the rotation and are required to receive a passing grade in the course. Students must meet expectations of clinical performance and professional behavior based on School of Medicine evaluation for fourth year students to "pass" course.

MEDI 4026. Nephrology Service - SAMMC. 4 Credit Hours.
The Nephrology Service offers students training and experience in the broad field of clinical nephrology. This consult rotation provides exposure to ambulatory and hospitalized patients with a variety of renal diseases including hypertension, glomerulonephritis, acute and chronic renal failure; exposure to problems of fluid, electrolyte, and acid-base disturbance. While on the service, students will be able to observe acute and chronic hemodialysis. Students are required to perform initial evaluations, including history and physicals, and will, under appropriate supervision, perform selected diagnostic procedures. A didactic lecture series, covering the broader topics of nephrology, is repeated on a monthly basis and the students are expected to attend. No late drops will be accepted. Students must meet expectations of clinical performance and professional behavior based on School of Medicine evaluation for fourth year students to "pass" course.

MEDI 4028. Renal Research. 4 Credit Hours.
Students are required to participate in ongoing research with the opportunity to learn some of the fundamental techniques of renal physiology and cell biology. Major focus of research is the role of peptide growth factors in mediating hemodynamic and metabolic events in the kidney. Independent research encouraged if student spends two or more selective periods in the laboratory. Students must meet expectations of research responsibilities based on School of Medicine evaluation for fourth year students to "pass" course.
MEDI 4029. Neurology Consultation. 4 Credit Hours.
Students are required to perform neurological consultations both at the University Hospital and Audie L. Murphy V. A. Hospital. Students are required to perform appropriately focused history and physical exams, prepare written and verbal presentations, interpret laboratory data, and develop differential diagnosis and management plans on all assigned patients. If rotation is done as the Ambulatory Selective, the student is required to prepare a written essay based upon specific course objectives concerning systems of care. Essays must be submitted on the last day of the rotation and are required to receive a passing grade in the course.

MEDI 4030. Neurology Subinternship-UH/VA. 4 Credit Hours.
The objective of this subinternship is to prepare students for the intense and responsible role of the intern. The subintern is an integral member of the team and is required to participate in all team activities and participate in all medical care for her/his patients, under the supervision of the Neurology resident and attending. Considerable responsibility in the management of neurologic patients is provided on the inpatient ward services at the University Hospital and Audie L. Murphy V. A. Hospital. Attendance at daily rounds, consultation rounds, and formal conferences is expected.

MEDI 4032. Neurology Research. 4 Credit Hours.
Several clinical and basic research projects, especially in the area of cerebral vascular disease, are being conducted in the Department of Neurology. Students may elect to work with the neurology faculty on one of these projects. This elective can be repeated depending upon the duration required for the research project.

MEDI 4034. Oncology Consultation Service. 4 Credit Hours.
The students are required to participate in the clinical activities of the Medical Oncology Section of the Division of Hematology/Oncology, with experience on the consultation service at both University Hospital and the VA Hospital, plus intensive outpatient experience in the Oncology Clinics. The inpatient consultation experience provides exposure to management of complex oncology problems. The clinic experience provides exposure to a variety of clinical medical oncology problems and their management in the outpatient setting. The student is required to become familiar with all aspects of supportive care for the oncology patient. Students are required to perform appropriately focused history and physical exams, prepare written and verbal presentations, interpret laboratory data, and develop differential diagnosis and management plans on all assigned patients. Students must meet expectations of clinical performance and professional behavior based on School of Medicine evaluation for fourth year students to "pass" course.

MEDI 4042. Coronary Intensive Care Unit - Subinternship - UH. 4 Credit Hours.
The objective of this subinternship is to prepare students for the intense and responsible role of the intern. The subintern is an integral member of the team and are required to participate in all team activities and participate in all medical care for his/her patients, under the supervision of the Internal Medicine resident, Cardiology fellow, and Cardiology attending. The student is required to become proficient in the work-up, diagnosis, and management of patients with acute myocardial infarction, acute respiratory failure, and other commonly encountered acute crises; develop expertise at arrhythmia recognition/therapy, principles involved with airways management/mechanical ventilation. Students must meet expectations of clinical performance and professional behavior based on School of Medicine evaluation for fourth year students to "pass" course.

MEDI 4043. Clinical Chest Disease Consultation Service. 4 Credit Hours.
Students are required to work in the inpatient and outpatient settings, participating in clinics, inpatient consultations, and division conferences. Students are required to perform appropriately focused history and physical exams, prepare written and verbal presentations, interpret laboratory data, and develop differential diagnosis and management plans on all assigned patients. Students are required to actively participate in the work-up and management of patients with acute and chronic lung diseases seen by the Consultation Service and attend Pulmonary clinics at the VA Hospital and UHC-D. Students will be exposed to various diagnostic methods including radiographic, radionucleotide, bronchoscopy, and pleural biopsy techniques. Through active participation, the student should become proficient in interpreting commonly used pulmonary function tests and chest x-rays. Principles and methods involving respiratory therapy, antimicrobial therapy, and evaluation of common pulmonary disorders will be emphasized. Students must meet expectations of clinical performance and professional behavior based on School of Medicine evaluation for fourth year students to "pass" course.

MEDI 4045. Pulmonary Medicine- SAMMC. 4 Credit Hours.
Students are required to learn the recognition and treatment of acute and chronic pulmonary problems on a consult service with selection and implementation of appropriate treatment modalities. Students also are required to become familiar with pulmonary function testing to include interpretation and application of pulmonary physiology to a clinical setting. Principles of respiratory therapy will be emphasized to include the utilization of respirators and oxygen delivery systems. Clinical projects may be assigned to stress key teaching points. An active pulmonary clinic and complete pulmonary function laboratory will be available for students to gain clinical experience. No late drops will be accepted. Students must meet expectations of clinical performance and professional behavior based on School of Medicine evaluation for fourth year students to "pass" course.

MEDI 4046. General Medicine Ward Subinternship-UH/VA. 4 Credit Hours.
The goal of this subinternship is to prepare students for the intense and responsible role of the intern. The subintern is an integral member of the team and is required to participate in all team activities and participate in all medical care for his/her patients, under the supervision of the Internal Medicine resident and attending. Students must meet expectations of clinical performance and professional behavior based on School of Medicine evaluation for fourth year students to "pass" course.

MEDI 4047. General Medicine Ward Subinternship-SAMMC. 4 Credit Hours.
This subinternship is designed to prepare students for the intense and responsible role of the intern. The subintern is an integral member of the team and is required to participate in all team activities and participate in all medical care for her/his patients, under the supervision of the Internal Medicine resident and attending. No late drops are accepted. Students must meet expectations of clinical performance and professional behavior based on School of Medicine evaluation for fourth year students to "pass" course.
MEDI 4048. Medical ICU Subinternship - SAMMC. 4 Credit Hours.
The goal of this subinternship is to prepare students for the intense and responsible role of the intern. The subintern is an integral member of the team and is required to participate in all team activities and participate in all medical care for his/her patients, under the supervision of the Internal Medicine resident, Critical care fellow and attending. Familiarization with pulmonary and hemodynamic physiology, as it applies to intensive care medicine, as well as the use and interpretation of data obtained from monitoring instruments, will be covered. No late drops will be accepted. Students must meet expectations of clinical performance and professional behavior based on School of Medicine evaluation for fourth year students to "pass" course.

MEDI 4049. Clinical Rheumatology. 4 Credit Hours.
The differential diagnosis and treatment of rheumatic and autoimmune diseases are taught through active student participation in outpatient clinics, consultation rounds, journal clubs, and division conferences. Students are required to evaluate patients at University Hospital, Audie Murphy VA Hospital, and UHC-D. Students are required to perform appropriately focused history and physical exams, prepare written and verbal presentations, interpret laboratory data, and develop differential diagnosis and management plans on all assigned patients. Students will also have exposure to community resources for the special problems encountered by the patients in this clinic and be able to identify different types of medical delivery systems. If rotation is done as the Ambulatory Selective, the student is required to prepare a written essay based upon specific course objectives concerning systems of care. Essays must be submitted on the last day of the rotation and are required to receive a passing grade in the course. Students must meet expectations of clinical performance and professional behavior based on School of Medicine evaluation for fourth year students to "pass" course.

MEDI 4062. Allergy-Immunology - WHMC. 4 Credit Hours.
The student will be a member of the Allergy-Immunology Ward Consult Team, along with a staff member, first-year fellow, and usually a resident. Students are required to assist in the evaluation of the inpatient consultations, and in addition see outpatients and attend all Allergy-Immunology Service educational activities. Students are required to perform appropriately focused history and physical exam, prepare written and verbal presentations, interpret laboratory data, and develop differential diagnosis and management plan on all assigned patients. No late drops will be accepted. Students must meet expectations of clinical performance and professional behavior based on School of Medicine evaluation for fourth year students to "pass" course.

MEDI 4066. Medical ICU Subinternship - UH/VA. 4 Credit Hours.
This subinternship is designed to prepare students for the intense and responsible role of the intern. The subintern is an integral member of the team and is required to participate in all team activities and participate in all medical care for his/her patients, under the supervision of the Internal Medicine resident, Pulmonary fellow, and Pulmonary/Critical care attending. Students are expected to participate in daily hospital rounds, morning report, Grand Rounds, Morbidity and Mortality conference, IM Housestaff conferences. The students are required to actively participate in the work-up and management of patients with critical illnesses under close supervision of the housestaff, fellows, and faculty. During this rotation, the student will be exposed to the fundamentals of ventilation support, airway management, respiratory and hemodynamic monitoring, stabilization and support of the critically ill patient. Emphasis is placed upon a system approach to patient evaluation and will include didactic sessions with critical care faculty in addition to daily rounds. Students must meet expectations of clinical performance and professional behavior based on School of Medicine evaluation for fourth year students to "pass" course.

MEDI 4068. Geriatric Medicine. 4 Credit Hours.
This rotation offers clinical experience in geriatric internal medicine. The student is required to participate in the Section’s outpatient clinic, academic nursing home, and didactic educational activities. The student also has the opportunity for exposure to other multidisciplinary programs in geriatric medicine, including hospital-based home care. Students are required to perform appropriately focused history and physical exams, prepare written and verbal presentations, interpret laboratory data, and develop differential diagnosis and management plans on all assigned patients. Students will also have exposure to community resources for the special problems encountered by geriatric patients and have the opportunity to learn to be able to identify different types of medical delivery systems. If the rotation is done as the Ambulatory Selective, the student will be required to prepare a written essay based upon specific course objectives concerning systems of care. Essays must be submitted on the last day of the rotation and are required to receive a passing grade in the course. Students must meet expectations of clinical performance and professional behavior based on School of Medicine evaluation for fourth year students to "pass" course.

MEDI 4069. Research in Aging. 4 Credit Hours.
This research elective offers the opportunity to participate in ongoing basic and clinical research on aging, including basic mechanisms of aging, nutritional modification of the aging process, gerontologic aspects of hormone action and hepatic glucose metabolism, clinical geriatric issues of long-term care interventions, ethics, and health services for the elderly under the supervision of faculty in the Department of Medicine (Division of Geriatrics) and the Department of Physiology. Students must meet expectations of research responsibilities based on School of Medicine evaluation for fourth year students to "pass" course.
MEDI 4074. AHEC Clinic Experience. 4 Credit Hours.
Under the auspices of the UT Health Science Center’s South Texas Program, this experience exposes students to primary care of ambulatory patients at various clinical training sites in South, East, West, and the Coastal area of Texas. The goals are to expose you to 1) primary care, 2) community-based practice, and 3) delivery of medical care to underserved/rural populations and health disparities. Please reference the link http://southtexas.uthscsa.edu for more information. The student must spend time working in the office practice of a physician who is board certified in Internal Medicine and/or one of its specialties. In addition, the student can gain experience in preventive services applicable to infectious diseases, tuberculosis, diabetes, etc., and work with health professionals to gain a broader understanding of health care needs and services depending upon the area in which he/she is working. The student will be required to prepare a written essay based upon specific course objectives concerning systems of care. Essays must be submitted on the last day of the rotation and are required to receive a passing grade in the course. Student housing expenses may be covered by the AHEC, but there will be no reimbursement for travel costs. No late drops will be accepted. Students must meet expectations of clinical performance and professional behavior based on School of Medicine evaluation for fourth year students to “pass” course.

MEDI 4077. EKG Interpretation. 2 Credit Hours.
This rotation is designed for students who have basic to intermediate expertise in reading ECG's and who are motivated to enhance this expertise through independent study. Students have the opportunity to become proficient in the interpretation of ECG's through daily self-study of electrocardiograms. Students must meet expectations of clinical performance and professional behavior based on School of Medicine evaluation for fourth year students to “pass” course.

MEDI 4078. HIV/AIDS Inpatient Service. 4 Credit Hours.
This elective on the HIV/AIDS Medicine Team 6 at University Hospital offers the opportunity to assume direct patient responsibility under the supervision of a resident, Infectious Disease fellow, and attending faculty. This sub-internship is for persons interested in obtaining extensive teaching in HIV disease. It provides practical experience in the diagnosis and treatment of HIV complications such as PCP, CMV, toxoplasmosis, invasive fungal infections, mycobacterial disease, and oncological and neurological complications of this disease. These objectives will be obtained through a team approach to patients with HIV infection involving nurses, physicians, and other staff, and also will include a formal didactic teaching series. Students must meet expectations of clinical performance and professional behavior based on School of Medicine evaluation for fourth year students to “pass” course.

MEDI 4079. Clinical Preceptorship in General Internal Medicine. 4 Credit Hours.
The student will join the practice of a clinical faculty member practicing general internal medicine in an internal medicine subspecialty in the local community. Activities include hospital rounds, office visits, hospital committee meetings, and an introduction to practice management. Students are required to perform appropriately focused history and physical exams, prepare written and verbal presentations, interpret laboratory data, and develop differential diagnosis and management plans on all assigned patients. Students will also have exposure to community resources for the special problems encountered by patients in the ambulatory setting, and be able to identify different types of medical delivery systems. If rotation is done as the Ambulatory Selective, the student will be required to prepare a written essay based upon specific course objectives concerning systems of care. Essays must be submitted on the last day of the rotation and are required to receive a passing grade in the course. Students must meet expectations of clinical performance and professional behavior based on School of Medicine evaluation for fourth year students to “pass” course.

MEDI 4084. Medicine Intensive Subinternship - RAHC. 4 Credit Hours.
This sub-internship in MICU is designed to prepare students for the intense and responsible role of the intern caring for the patients in the intensive care unit. The sub-intern is an integral member of the team and will participate in all team activities and medical care for his/her patients, under the supervision of the Internal Medicine resident and Pulmonary/Critical Care attending. Students must meet expectations of clinical performance and professional behavior based on School of Medicine evaluation for fourth year students to “pass” course.

MEDI 4085. General Medicine Ward Subinternship - RAHC. 4 Credit Hours.
This sub-internship is designed to prepare students for the intense and responsible role of the intern. The sub-intern is an integral member of the team and will participate in all team activities and medical care for his/her patients, under the supervision of the Internal Medicine resident, and will follow no more than 5 patients at any time, depending on the complexity of the patients. Students will provide comprehension patient care from admission to discharge and participate in procedures. Students must meet expectations of clinical performance and professional behavior based on School of Medicine evaluation for fourth year students to “pass” course.

MEDI 4114. Combined Consultation Service In Geriatrics & Palliative Medicine. 0.5 Credit Hours.
This elective didactic course will introduce the basic elements of assessing a geriatric patient or a patient in need of palliative care in the in-hospital setting.

MEDI 4115. Palliative Care. 0.5 Credit Hours.
This MS4 didactic elective will focus on the main beliefs of palliative care, which include symptom control and end-of-life care in general and in specific populations, fulfilling the following educational principles, applicable to many other areas in medicine: * Communication skills instruction for medical students * Exposure to interdisciplinary teams (IDT) * Instruction in the multicultural practice of medicine.

MEDI 4120. Intermediate ECG Interpretation. 0.5 Credit Hours.
Course consists of 8 one-hour sessions. Each session will cover 5 to 15 examples of ECG teachings for discussion moderated by the instructor. Each student will be given a handout with copies of the tracings. Topics covered will include hypertrophy, atrial arrhythmia, ventricular arrhythmia, conduction abnormality, ischemia, injury, infarction, and pacemakers. Grade based on class participation.
MEDI 4121. Intermediate Bedside Cardio Exam. 0.5 Credit Hours.
Course consists of 8 one hour sessions. Each session will include demonstrations of physical findings and their elucidation in patients with cardiovascular disease. Topics covered will include brief review of cardiac cycle, characteristics of innocent murmurs, systolic murmurs, diastolic murmurs, evaluation of arterial and venous pulsations, congestive heart failure, and self assessment. Grade based on class participation.

MEDI 4150. Tropical Medicine & International Health. 0.5 Credit Hours.
Course consists of 10 contact hours and will cover topics specifically related to health in the tropics and developing world. The course will consist of an introductory lecture and nine 1 hour small group case-based discussions. Students will prepare for the small group discussions through self-initiated study of the provided syllabus and faculty will lead the case-based discussion groups. Student grades will be determined by participation in the small group discussions (50%) and a final exam (50%).

MEDI 4151. Poverty, Health, And Disease Elective. 0.5 Credit Hours.
This elective course is offered to students who wish to gain insight into the complex interplay between poverty and health, both in the United States and in resource-limited settings around the world. The purpose of the course is to expose the students to several thought leaders and appropriate published literature, including books written to address these concepts. The course will explore the problems of inequality of access to health care and its impact on health delivery systems with examples from Guatemala, Haiti, and New Orleans.

MEDI 4153. Informatics and Advanced Evidence-Based Medicine. 0.5 Credit Hours.
The course is for students who want to master information and evidence. We will use the computer lab to learn advanced skills in: 1) retrieving information, 2) storing and filing information, 3) assessing information, and 4) keeping up with new advances. The skills will include both strategies and techniques. To pass the course, students must complete a small final project that previous students have enjoyed. In their project, they will publish on Wikipedia a short, structured summary of one article for a clinical topic. I will walk you through creating the edits. The edit can be done anonymously if the student prefers. By completing the project, the students learn the goals of the course. Credit for successful completion of the course requires active participation in class activities, a minimum of 100% attendance, and successful completion of final project.

MEDI 4155. Clinical Epidemiology for the Intern. 0.5 Credit Hours.
Clinical epidemiology -- the basic science of clinical medicine that makes predictions about individual patients based on the occurrence of clinical events in groups of similar patients and using strong scientific methods to ensure that the predictions are accurate -- is especially powerful in situations of medical uncertainty. Essential concepts and methods of clinical epidemiology are presented as they pertain to obtaining answers to clinical questions and guiding clinical decision-making with the best available evidence. A case-based approach is used to illustrate the relevance of clinical epidemiological approaches to decision-making about the care of individual patients. Learning activities incorporate both didactic, small-group problem solving approaches, and procedure skills (e.g., central venous line placement, incision and drainage of abscess, lumbar puncture, and thoracentesis). Credit for successful completion of the course will be based on attendance.

MEDI 4170. Internal Medicine Internship Readiness Elective. 4 Credit Hours.
This rotation (Internal Medicine Boot Camp) is a 4-week elective restricted to students who will begin a categorical internal medicine residency in July of that same academic year. The purpose of the course is to present the diagnosis and management of common medicine topics that an IM intern can expect to encounter during residency, enhance differential diagnosis skills of common chief complaints seen on a medicine service, and develop procedural skills and patient evaluation skills. Students are expected to attend all scheduled conferences and interactive laboratories and clinical sessions focused on procedural skills and clinical assessment of standardized patients. Clinical skills labs will include heart sounds using Harvey manikin, intubation, mechanical ventilation, PFT, joint aspiration and placement of central lines. Students will receive training in BLS and ACLS and can receive certification if all classes are attended and performance is satisfactory. Students are required to give an oral presentation on a medicine topic/clinical question. Students must meet expectations of clinical performance and professional behavior based on School of Medicine evaluation for fourth year students to "pass" course.

MEDI 4201. ECG Interpretation-RAHC. 2 Credit Hours.
This rotation is designed for students whom have basic to intermediate expertise in reading ECG's and who are motivated to enhance this expertise through independent study. Students have the opportunity to become proficient in the interpretation of ECG's through daily self-study of electrocardiograms. The ECG's are referenced from the textbook: Clinical Electrocardiography - Review and Study Guide, Franklin H. Zimmerman, McGraw-Hill, 2nd ed, 2004, ISBN 0-07-142302-8. Students must meet expectations of clinical performance and professional behavior based on School of Medicine evaluation for fourth year students to "pass" course.

MEDI 4204. Geriatrics/End of Life - RAHC. 4 Credit Hours.
This rotation offers clinical experience in both geriatric medicine and palliative medicine. For the geriatric portion, the student is required to participate in the care of patients in a clinic, a nursing home, with home health agencies, and will have didactic educational activities. For the end-of-life portion, the student is required to work with professionals from different disciplines involved in a hospice-affiliated with the Harlingen teaching hospital (VBMC). Students must meet expectations of clinical performance and professional behavior based on School of Medicine evaluation for fourth year students to "pass" course.

MEDI 4206. Office Cardiology-RAHC. 4 Credit Hours.
The student will work with a cardiologist in solo or group practice and will participate in the evaluation of patients with cardiac symptoms and disease. The student will have full-time participation in clinics, consultations, ECG interpretation, non-invasive cardiac test interpretation, and possible observation in the cardiac catheterization laboratory. The student is expected to learn the pathophysiological approach to the diagnosis and management of disease of the cardiovascular system, a detailed assessment through history and detailed cardiovascular physical exam, and interpretation of diagnostic tests. If rotation is done as the Ambulatory Selective, the student is required to prepare a written essay based upon specific course objectives concerning systems of care. Essays must be submitted on the last day of the rotation and are required to receive a passing grade in the course. Students must meet expectations of clinical performance and professional behavior based on School of Medicine evaluation for fourth year students to "pass" course.
MEDI 4207. Office Endocrinology-RAHC. 4 Credit Hours.
The student will work with an endocrinologist in solo or group practice and is required to participate in the evaluation of patients with endocrine disease. The student will have full-time participation in clinics, consultations, and endocrine test interpretation. The student is expected to learn the diagnosis and management of disease of the endocrine system, patient assessment through a detailed history and physical exam, and interpretation of tests. Exposure to patients with pituitary and hypothalamic disease, thyroid disease, abnormalities in calcium metabolism, adrenal disease, diabetes, and lipid disorders may be seen. If rotation is done as the Ambulatory Selective, the student is required to prepare a written essay based upon specific course objectives concerning systems of care. Essays must be submitted on the last day of the rotation and are required to receive a passing grade in the course. Students must meet expectations of clinical performance and professional behavior based on School of Medicine evaluation for fourth year students to "pass" course.

MEDI 4208. Office Gastroenterology-RAHC. 4 Credit Hours.
The student will work with a gastroenterologist in solo or group practice in Harlingen or in McAllen. The student is required to participate in the evaluation of patients with gastrointestinal diseases, liver disease, and diseases of the pancreas. The student will have full-time participation in clinics, consultations, and special gastrointestinal diagnostic techniques. Students are required to perform appropriately focused history and physical exams, prepare written and verbal presentations, interpret laboratory data, and develop differential diagnosis and management plans on all assigned patients. If rotation is done as the Ambulatory Selective, the student is required to prepare a written essay based upon specific course objectives concerning systems of care. Essays must be submitted on the last day of the rotation and are required to receive a passing grade in the course. Students must meet expectations of clinical performance and professional behavior based on School of Medicine evaluation for fourth year students to "pass" course.

MEDI 4209. Intermediate ECG Interpretation-RAHC. 0.5 Credit Hours.
Each session will consist of discussions of examples of ECG tracings covering topics of hypertrophy, atrial arrhythmia, ventricular arrhythmia, conduction abnormality, ischemia, injury, infarction and pacemakers.

MEDI 4210. Office General Medicine - RAHC. 4 Credit Hours.
The student will work with general internists at Su Clinica Familiar clinic and is required to participate in the evaluation of patients with common internal medicine problems. The student is required to participate full-time with a mixture of day and evening clinics. The student is required to independently evaluate patients, present findings to the attending physician, document notes in the medical record, and participate in the management discussion and any procedures related to the patient. Students will have exposure to community resources for special problems encountered by the patients in obtaining health care and be able to identify different types of medical delivery systems. The student will be required to prepare a written essay based upon specific course objectives concerning systems of care. Essays must be submitted on the last day of the rotation and are required to receive a passing grade in the course. Students must meet expectations of clinical performance and professional behavior based on School of Medicine evaluation for fourth year students to "pass" course.

MEDI 4211. Office Nephrology-RAHC. 4 Credit Hours.
The student will work with a nephrologist in a solo or group practice and are required to participate in the evaluation of patients with a variety of renal diseases including hypertension, acute and chronic renal failure, acid-base disturbances, fluid and electrolyte disturbances, and glomerular disease. The student will have full-time participation in clinics, consultations, special diagnostic procedures, and the dialysis unit. Students are required to perform appropriately focused history and physical exams, prepare written and verbal presentations, interpret laboratory data, and develop differential diagnosis and management plans on all assigned patients. If rotation is done as the Ambulatory Selective, the student is required to prepare a written essay based upon specific course objectives concerning systems of care. Essays must be submitted on the last day of the rotation and are required to receive a passing grade in the course. Students must meet expectations of clinical performance and professional behavior based on School of Medicine evaluation for fourth year students to "pass" course.

MEDI 4213. Office Pulmonary Medicine - RAHC. 4 Credit Hours.
The student will work with a pulmonologist in solo or group practice, and is required to participate in the evaluation of patients with acute and chronic lung diseases. The student will have full-time participation in clinics, inpatient hospital consultations, and various diagnostic methods. Students are required to perform appropriately focused history and physical exams, prepare written and verbal presentations, interpret laboratory data, and develop differential diagnosis and management plans on all assigned patients. The student will be expected to become proficient in the interpretation of chest x-rays, pulmonary function tests, the evaluation of common pulmonary disorders, and the principles and methods of respiratory therapy, antimicrobial therapy, and arterial blood gases. The student may also have exposure to bronchoscopy, thoracentesis, pleural biopsy, and radionuclide testing. Students must meet expectations of clinical performance and professional behavior based on School of Medicine evaluation for fourth year students to "pass" course.

MEDI 4214. Office Rheumatology-RAHC. 4 Credit Hours.
The student will have the opportunity to work with a rheumatologist in solo or group practice and is required to participate in the evaluation of patients with rheumatologic disease. The student will have full-time participation in clinics, consultations, and special diagnostic techniques. Students are required to perform appropriately focused history and physical exams, prepare written and verbal presentations, interpret laboratory data, and develop differential diagnosis and management plans on all assigned patients. The student is expected to become proficient in the differential diagnosis and treatment of rheumatic and autoimmune diseases. If rotation is done as the Ambulatory Selective, the student is required to prepare a written essay based upon specific course objectives concerning systems of care. Essays must be submitted on the last day of the rotation and are required to receive a passing grade in the course. Students must meet expectations of clinical performance and professional behavior based on School of Medicine evaluation for fourth year students to "pass" course.
MEDI 4215. Valley Aids Council-RAHC. 4 Credit Hours.
The student will have the opportunity to work in the AIDS clinic with an internal medicine physician who specialized in the care of patients with HIV disease. This rotation will provide experience in the diagnosis and treatment of HIV disease and complications such as PCP, CMV, toxoplasmosis, invasive fungal infections, mycobacterial disease, and oncological and neurological complications of HIV disease. The student will have full-time participation in clinics and consultations. Students are required to perform appropriately focused history and physical exams, prepare written and verbal presentations, interpret laboratory data, and develop differential diagnosis and management plans on all assigned patients. Students will also have exposure to community resources for the special problems encountered by the patients in this clinic and be able to identify different types of medical delivery systems. If the rotation is done as the Ambulatory Selective, the student will be required to prepare a written essay based upon specific course objectives concerning systems of care. Essays must be submitted on the last day of the rotation and are required to receive a passing grade in the course. Students must meet expectations of clinical performance and professional behavior based on School of Medicine evaluation for fourth year students to "pass" course.

MEDI 4216. Office Hematology-Oncology -RAHC. 4 Credit Hours.
The student will have the opportunity to work with a hematologist/oncologist in solo or group practice in Harlingen or in McAllen. The student is required to participate in the evaluation of patients with hematologic disease and malignancies through daily clinics, consultations, interpretation of special clinical, and laboratory procedures. Students are required to perform appropriately focused history and physical exams, prepare written and verbal presentations, interpret laboratory data, and develop differential diagnosis and management plans on all assigned patients. If rotation is done as the Ambulatory Selective, the student is required to prepare a written essay based upon specific course objectives concerning systems of care. Essays must be submitted on the last day of the rotation and are required to receive a passing grade in the course. Students must meet expectations of clinical performance and professional behavior based on School of Medicine evaluation for fourth year students to "pass" course.

MEDI 5070. Responsible Conduct Of Patient-Oriented Clinical Research. 2 Credit Hours.
This interdisciplinary course is designed to train participants in the conduct of patient-oriented clinical research. Students will have the opportunity to learn to and, by the end of the course, be required to: (1) delineate a history of hallmark abuses of humans enrolled in clinical research; (2) describe the evolution of national and international codes and regulations guiding inclusion of human subjects in clinical investigations; (3) list the elements of informed consent and describe procedures and precautions for enrolling special populations into clinical investigation; (4) write a consent form in understandable language; (5) recognize different forms of scientific misconduct; (6) describe the role and processes of a peer review board to judge violations in research ethics; (7) develop strategies for self-assessment and validation of scientific objectivity in one's own research; and (8) recognize the ethical responsibilities and consequences of whistle blowing.

MEDI 5071. Patient-Oriented Clinical Research Methods-1. 2 Credit Hours.
This interdisciplinary course is the first in a two-semester sequence designed to train participants in the conduct of patient-oriented clinical research. Students will have the opportunity to learn to and, by the end of the course, be required to: (1) define a research question; (2) effectively conduct a systematic review of the scientific literature; (3) design strategies for recruitment into a study; (4) delineate strategies for minimizing bias in cross-sectional and retrospective studies; and (5) read and interpret research reports of cross-sectional and case-control investigations.

MEDI 5072. Patient-Oriented Clinical Research Biostatistics-1. 2 Credit Hours.
This interdisciplinary course is the first in a two-semester sequence designed to train participants in the analysis and biostatistics of patient-oriented clinical research. Students will have the opportunity to learn to and, by the end of the course, be required to: (1) identify and summarize different categories of data; (2) set up and perform tests of hypotheses; (3) estimate sample sizes for survey and case-control studies; and (4) use statistical software packages to enter, summarize, graph, visualize, and analyze data.

MEDI 5073. Integrated Molecular Biology With Patient-Oriented Clinical Research. 2 Credit Hours.
This interdisciplinary course is designed to train participants on integrating molecular biology methods into patient-oriented clinical research. Students will have the opportunity to learn to: (1) appropriately use molecular terms in clinical investigation; (2) describe the events involved in protein synthesis; (3) describe the principles involved in molecular techniques (e.g., polymerase chain reactions, Southern blots); (4) identify the appropriate specimens, collection, and handling requirements for each molecular technique; (5) identify and correct common sources of error in performing molecular techniques; (6) cite examples of clinical applications of molecular techniques in clinical medicine; and (7) apply molecular techniques in the laboratory to specific clinical problems.

MEDI 5074. Data Management, Quality Control And Regulatory Issues. 2 Credit Hours.
This interdisciplinary course is designed to train participants in the necessary data management and quality control procedures required for the conduct of patient-oriented clinical research. It consists of three segments: (1.) introduction to data management principles and standard practices; (2) development of the student’s own mentored research; and (3) introduction to bioinformatics.

MEDI 5075. Scientific Communication. 2 Credit Hours.
This interdisciplinary course is designed to train participants to write effectively in all aspects of conducting patient-oriented clinical research. Students will have the opportunity to learn to and, by the end of the course, be required to: (1) recognize and avoid errors in grammar, punctuation, and usage that are common in scientific writing; (2) construct units of writing whose structure, style, and logical continuity allows instant and clear comprehension; (3) construct concise, informative titles; (4) develop clear, comprehensive, abstracts for papers and grant proposals; (5) construct complete, well-rationalized sets of specific aims for grant proposals; and (6) effectively apply the 4-Point Rule (What is the question? How did we approach it? What happened? What does it mean?) to all forms of scientific writing.
MEDI 5076. Introduction To Informatics. 1 Credit Hour.
This elective course is designed to serve the interests of practicing clinicians who are pursuing a career in clinical investigations. In this course, students will be introduced to widely available tools online and UT Health Science Center at San Antonio resources. They will become familiar with some of the guiding principles and current issues in informatics. The students will occasionally participate in practicum sessions that will give them hands-on experience with the resources discussed in the class as well as have an opportunity to discuss Ethical, Social, and Legal Issues (ESLI) surrounding informatics today.

MEDI 5077. Translational Science Training (TST) Practicum. 1-3 Credit Hours.
This elective course provides an opportunity for participation in unique clinical and translational research activities that are highly individualized for each student on the basis of prior experience and research interests.

MEDI 5078. Introduction to Intellectual Property, Technology Transfer and Commercialization. 1 Credit Hour.
This elective course provides an in-depth overview of the essential components encompassed in the protection of intellectual property, patents, licensing, technology transfer, and product commercialization. Content is provided through a series of lectures, assigned readings, literature reviews, class presentations, and discussions with faculty.

MEDI 5079. Practicum in Intellectual Property, Technology Transfer and Commercialization. 0.5-1 Credit Hours.
This elective course provides an opportunity for participation in unique and translational research activities that focus on the processes involved in the protection of intellectual property and the transfer and commercialization of technology. Activities are highly individualized for each student on the basis of prior experience and research interests.

MEDI 6001. Introduction To Translational Science. 1 Credit Hour.
This elective course provides an in-depth overview of the essential components encompassed by translational science. Content is provided through a series of lectures, assigned readings, literature reviews, class presentations, and discussions with faculty.

MEDI 6060. Patient-Oriented Clinical Research Methods-2. 2 Credit Hours.
This interdisciplinary course is the second in a two-semester sequence designed to train participants in the conduct of patient-oriented clinical research. Students will have the opportunity to learn to and, by the end of the course be required to: (1) define criteria for inferring causation from observational studies; (2) design strategies for subject retention in a prospective study; (3) design strategies for monitoring progress in a randomized control trial; (4) delineate strategies for minimizing bias in cohort studies and randomized control trials; (5) compare and contrast the uses, strengths, and weaknesses of different clinical trial designs; (6) read and interpret research reports of cohort studies and randomized control trials; and (7) describe the steps in conducting a meta-analysis. Prerequisites: MEDI 5071.

MEDI 6061. Patient-Oriented Clinical Research Biostatistics-2. 2 Credit Hours.
This interdisciplinary course is the second in a two-semester sequence designed to train participants in the biostatistical analysis and patient-oriented clinical research. Students will have the opportunity to learn to and, by the end of the course, be required to: (1) perform a two-way analysis of variance and explain the results; (2) perform survival analysis; (3) compare and contrast the purpose and characteristics of different forms of interventional trials; and (4) plan the sample size, analysis, and stopping rules of a randomized clinical trial. Prerequisites: MEDI 5072.

MEDI 6064. Grantsmanship and Peer Review. 1 Credit Hour.
The purpose of this elective course is to provide an overview of the peer review process for research proposals as well as the essential components of grant management. Lecture and assignment topics will include: (1) funding agencies, missions, deadlines, and instruction; (2) Institutional Grantsmanship Issues; (3) National Institutes of Health (NIH) Organization (Institutes, Councils, Centers, and Budgets); (4) NIH Awards and Study Sections; (5) process and communications with the NIH; (6) interpreting and responding to written critiques; (7) mock study section meeting; and (8) grantsmanship after funding.

MEDI 6065. Health Services Research. 2 Credit Hours.
This course focuses on concepts and methods used in research focusing on health care quality, utilization, access, and safety. The seminar will utilize skills-based learning, small group activities, and outside assignments. By the end of the course, candidates will be required to: (1) Articulate underlying core concepts; (2) Describe basic methods used in health services research; (3) Identify relevant databases and data sources for health services research; (4) Critically appraise and interpret published reports of health services research; (5) Discuss current issues in HSR; (6) Understand how to incorporate health services concepts, methods, or tools into current research. Prerequisites: MEDI 5071 and 6060.

MEDI 6066. Instrument Development And Validation. 1 Credit Hour.
This elective course introduces methods to develop and evaluate self-report measures. The seminar is built on classical test theory with a focus on the practice of creative surveys. Participants should be able to (1) estimate various forms of reliability; (2) demonstrate various forms of validity evidence; and (3) explain how statistical analyses may be used to inform the validation process.

MEDI 6067. Genetics And Genetic Epidemiology. 1 Credit Hour.
The main objective of this elective course is to familiarize students with current concepts and methods used in patient-oriented genetic studies. The class is oriented toward all health professionals - no prior genetics coursework is required. Topics include a review of the human genome structure followed by lectures and discussion on current research areas such as genetic epidemiologic studies, applications of microarray technologies, and pharmacogenomics. By the end of the course, candidates will have had the opportunity to learn to: (1) articulate basic concepts and current analytical methods used for human genetics research; (2) identify and use relevant databases and data sources for genetics research; (3) interpret the literature and discuss current issues of human genetics research; and (4) understand the potential and current limits of personalized medicine.

MEDI 6068. Cross-Cultural Adaptation Of Research Instruments. 1 Credit Hour.
This elective course introduces students to the concept of cross-cultural equivalence of research instruments - a prerequisite for making valid comparisons across two or more ethnic groups - and the process of cross-cultural adaptation used to achieve this equivalence. Students will have the opportunity to learn the multiple steps necessary to successfully cross-culturally adapt research instruments and how to assure content, semantic, technical, conceptual, and criterion equivalence of individual items and scales. A number of instruments used in cross-cultural research will be reviewed and critiqued with regard to their cross-cultural equivalence.
MEDI 6069. Statistical Issues, Planning, And Analysis Of Contemporary Clinical Trials. 2 Credit Hours.
This elective course will serve as an in-depth survey of the various clinical trial designs, analysis, and regulatory issues. Students will learn to apply statistical principles in designing clinical trials to minimize risk to patients while maximizing generalizable discovery. Specific topics include Phase I-V studies, adaptive designs, longitudinal and survival studies. Students will learn to specify the primary outcome and to estimate the required sample size for common trial designs. Clinical trial design and analysis is often complicated by idiosyncrasies such as missing data, and the methodology for handling these will be covered. Prerequisites: MEDI 5072 and MEDI 6061.

MEDI 6070. Biostatistics Methods For Longitudinal Studies. 2.5 Credit Hours.
This elective course will discuss a broad range of statistical techniques for deriving statistical inference from longitudinal studies. Main topics include design of longitudinal studies (power analyses and sample size estimation), analyses of repeated measured outcomes (continuous and discrete), analyses of time to event outcomes, techniques to address challenges associated with missing data and confounding, and rigorous casual modeling approaches. Students will learn to identify feasible and efficient statistical design of longitudinal studies; and to conduct rigorous and robust statistical methods to analyze data arising from longitudinal studies. The goal is to develop students' biostatistical competencies in conducting high-quality longitudinal studies in medical research. Prerequisites: MEDI 5072 and MEDI 6061.

MEDI 6097. Research. 1-9 Credit Hours.
The Research Course is set up for the student to conduct their Mentored Research Project with their supervising professor. This time is to be spent directly working on the project and includes, but is not limited to, writing consent forms, collecting data, analyzing data, and preparing a manuscript. After MSCI COGS approval of the research project, students take three semester credit hours of research during each semester of the Master of Science in Clinical Investigation Degree Program.

MEDI 6098. Thesis. 1 Credit Hour.
An MSCI Program student is required to enroll in Thesis the semester they submit their manuscript for approval by the MSCI COGS. The 1.0 semester credit hour is required to graduate from the MSCI Program.

MEDI 6100. Practicum In IACUC Procedures. 1 Credit Hour.
This elective course presents an in-depth introduction to the institutional program that provides oversight and regular review of projects that involve the care and use of animals. This includes consideration of the operational procedures of the Institutional Animal Care and Use Committee (IACUC) of the UT Health Science Center at San Antonio. Course objectives are achieved through a combination of readings, monthly attendance at selected IACUC meetings, and discussions with faculty.

MEDI 6101. Topics In Translational Science. 1 Credit Hour.
This elective course addresses selected topics in translational science through a series of lectures, assigned readings, literature re-views, class presentations, and discussions with faculty.

MEDI 6102. Practicum In IRB Procedures. 1 Credit Hour.
This elective course presents an in-depth introduction to the institutional program that provides oversight and regular review of research projects that involve human subjects. This includes consideration of the operational procedures of the multiple Institution Review Boards (IRB) of the UT Health Science Center at San Antonio. Course objectives are achieved through a combination of readings, monthly attendance at selected IRB meetings, and discussions with faculty.

MEDI 6103. Selected Topics In Advanced Research Ethics. 1-3 Credit Hours.
This elective course provides an in-depth understanding of a selected topic in research ethics. Students work independently to develop a detailed literature review specific to an area of research and are required to prepare a manuscript describing the results. Regular meetings with the Course Director will review progress towards course goals.

MEDI 6105. Topics In Cancer Prevention. 1 Credit Hour.
This course addresses current topics in cancer prevention science through a series of didactic lectures and discussions with cancer prevention faculty. Topics span the continuum of cancer prevention from basic cancer epidemiology and carcinogenesis, to cancers of special relevance in South Texas and interventions. An exposure to prevention clinical trials and disparity research will also be presented. Consent of instructor is required for registration.

MEDI 6106. Practicum In Cancer Prevention Science. 0.5-1 Credit Hours.
This elective course provides an opportunity for participation in unique clinical and laboratory cancer prevention research activities that are highly individualized for each student on the basis of prior experience and research interests. Consent of the instructor is needed for registration.

MEDI 7000. Off Campus. 4 Credit Hours.
All off campus rotations must be approved by the designated faculty member prior to the beginning of the rotation (at least one week before the course begins). Credit will not be given for any rotation that has not been approved in advance. Required paperwork includes: “Course Approval” form, a written letter or email for acceptance form the physician preceptor with the start and end dates of the course/rotation, and a course description of your learning objectives and responsibilities during the rotation. Forms must include a complete address and telephone number for the off campus location or residence address for the student while at the off campus site. Forms will not be approved after the rotation has already begun. Contact the department for assistance with enrolling in this course.

MEDI 7099. Dissertation. 1 Credit Hour.
Preparation and writing of the Doctoral dissertation. Registration for at least two terms is required of Ph.D. candidates.

Microbiology (MICR)

Courses

MICR 4000. Special Topic. 4 Credit Hours.
This is a self-designed course created by both the student and the department to cover a specific topic. A Course Approval Form must be completed along with documentation of the designed course description.

MICR 4001. Immuno & Micro Infections. 4 Credit Hours.
The course is a collaboration with a senior investigator in research problem of mutual interest.

MICR 4002. Advanced Medical Microbiology. 4 Credit Hours.
This elective is available to selected fourth-year students. Responsibilities during the period would include 1) the reading of 20-25 short articles out of Morbidity & Mortality Weekly Reports (generally 5-7 pages each), so as to be prepared to 2) lead discussions as MS1 students present summaries of these articles (1 article per student in a small group setting). In addition to enriching the curriculum of the first-year class, this elective will provide the MS4 student with the opportunity to be updated on some of the most current issues of the day in areas of infectious disease.
MICR 5003. Core Concepts In Microbiology & Immunology. 4 Credit Hours.
This course will provide an integrated view of the microbial world and the mammalian immune response. Students will receive a foundation in the basic concepts and experimental approaches that are crucial for understanding core concepts in pathogenic microbiology, virology, parasitology, mycology, and immunology through directed readings and didactic instruction. A special emphasis will be placed on integrating knowledge from each discipline using specific examples to illustrate important concepts in host-pathogen interaction.

MICR 5013. Microbiology. 4 Credit Hours.
Foundation in immunology, bacteriology, virology, and mycology for all subsequent teaching of microbial pathology and oral infectious diseases is presented. Relevant aspects of preventive medicine and public health are included. Course Fees: Lab fee: $32.

MICR 5025. Eukaryotic Pathogens. 1 Credit Hour.
The course will provide students with the opportunity to gain a basic comprehensive understanding of parasitology and mycology. The first part of this course will focus on virulence mechanisms and the host immune response with respect to a variety of parasites that cause major human diseases. The second part of this course will cover several important areas of medical mycology including molecular biology, diagnostic/epidemiology, mating/phenotypic switching, morphology, pathogenesis, and antifungal therapies.

MICR 5026. Bacterial Pathogenesis. 1 Credit Hour.
This is an introductory course in microbial pathogenesis focusing on bacterial pathogens that are important in human disease. Students will receive a foundation in the basic concepts and experimental approaches that are crucial for understanding the discipline through directed readings and didactic instruction. Specific concepts, strategies, and mechanisms used by human bacterial pathogens to cause disease will be illustrated.

MICR 5027. Immunology. 1 Credit Hour.
This course will focus on fundamental concepts in immunology with emphasis on experimental strategies for elucidating cellular and molecular mechanisms underlying immune responses. Lecture topics will illustrate important concepts in innate immunity, cytokine signaling, antigen recognition and presentation, the genetics of immune receptors and the major histocompatibility complex, immunity to infection, and immunopathology (e.g., hypersensitivity, autoimmunity, immunodeficiency, etc.).

MICR 5028. Virology. 1 Credit Hour.
This course focuses on the molecular and cellular biology of animal viruses, and their interactions with host cells. Many of the viruses to be covered in this course are medically significant or have provided critical information that has expanded our understanding of cell biology, immunology, development, and differentiation.

MICR 5029. Building Scientific Thinking Skills. 2 Credit Hours.
The goal of this course is to provide the opportunity for graduate students to develop critical thinking skills in reading scientific literature, developing/critiquing scientific ideas and grant proposals and effectively communicating one’s own scientific ideas with peers. The courses will be offered in three consecutive stages. First, each student will be assigned/encouraged to read articles focusing on a topic in the areas of Microbiology and Immunology and give a 50 minute review presentation on the topic to the class followed by questions/critiques from fellow students and faculty members. Second, each student is guided to develop a mini-proposal on a chosen topic followed by written critiques from fellow students and faculty members. Finally, each student is arranged to give an oral defense of his or her written proposal to the class followed by questions from fellow students and faculty members. Since the proposal writing and defense portions mimic the process involved in M&I track qualification examination, this course will not only have a long lasting impact on the students’ scientific skill development, but also help prepare the students for the immediate qualification examination.

MICR 5030. Microbiology And Immunology Track Journal Clubs. 0.5 Credit Hours.
The M&I track students, together with faculty members and other researchers, will meet once a week to discuss articles on life science with an emphasis on the Microbiology and Immunology disciplines. At each meeting, an individual will present one or several papers, or a review and related materials. The presentation will be followed by questions and discussions involving everyone present at the meeting. Each meeting is scheduled for one hour.

MICR 5051. Intro To Immunology. 2 Credit Hours.
This course is a study of immune responses with emphasis on experimental strategies for elucidating cellular and molecular mechanisms. Three phases of study: (1) immunochemistry and molecular biology of antibodies, lymphocyte receptors, and products of the major histocompatibility complex; (2) cellular interactions and immuno-regulation; and (3) immunopathologies (hypersensitivity, autoimmunity, immunodeficiency, transplantation rejection, and tumor immunology). Prerequisites: consent of instructor, courses in General Biology and Genetics recommended.

MICR 5090. Acquiring Presentation Skills. 1 Credit Hour.
This course is designed to prepare the student for giving a scientific lecture or seminar. Students present at least one lecture per academic year. Each student is coached and evaluated by faculty members in terms of both effective public speaking and critically analyzing scientific data. In addition, the seminars are videotaped. Students are required to attend all seminars.

MICR 5091. Current Topics In Microbiology And Immunology. 1-3 Credit Hours.
Students will be given an opportunity to gain in-depth understanding of selected topics in microbiology and immunology through a combination of library research and discussion with faculty. Prerequisites: consent of instructor.

MICR 5092. Special Problems. 1-9 Credit Hours.
The course provides an opportunity for the student to engage in a special research project or to develop proficiency in the use of certain laboratory methods. Prerequisites: consent of instructor.

MICR 6022. Advanced Microbial Physiology. 2 Credit Hours.
This course consists of readings and conferences. The course includes current concepts and experimental studies in microbial structure-function relationships and regulatory mechanisms. Prerequisites: consent of instructor.
MICR 6024. Advanced Microbial Genetics. 1-4 Credit Hours.
This course consists of lectures and conferences. This course is an in-depth study of selected areas of microbial genetics, and presentation and discussion of current literature in these areas. Prerequisites: Consent of instructor.

MICR 6026. Advanced Molecular Genetics Of Eukaryotic Pathogens. 2 Credit Hours.
This course will cover the major research methods and techniques used to study human fungal pathogens.

MICR 6043. Advanced Topics In Virology. 2 Credit Hours.
This course is an in-depth study of selected topics in animal virology at the molecular level. Prerequisites: Consent of instructor.

MICR 6050. Advanced Topics In Tumor Immunology. 1 Credit Hour.
This course provides an opportunity for students to gain a solid foundation in modern tumor immunology. Topics include tumor antigens, autoimmunity, mechanisms of killing, dysregulation of inflammation, and counter measures mediated by tumor to thwart or subvert host immunity.

MICR 6052. Advanced Immunobiology. 2 Credit Hours.
This course consists of lectures only. This course is an in-depth study of the immune system and how it is regulated, including presentation and discussion of current literature in these areas. Prerequisites: MICR 5051 or consent of instructor.

MICR 6071. Supervised Teaching. 1-9 Credit Hours.
This course consists of teaching under the close supervision of instructors as laboratory assistants and as leaders in tutorial or review sessions. The more advanced students may present formal lectures in the classroom or lead discussions in the laboratory. Prerequisites: consent of chair or department.

MICR 6091. Seminars In Microbiology & Immunology. 1 Credit Hour.
Presentations and discussions of recent advances in various areas of Microbiology & Immunology. Invited speakers may be from inside or outside the HSC. Each graduate student in the M&I Track is expected to register for this course each fall and each spring semester for as long as the student is enrolled in graduate school.

MICR 6097. Research. 1-9 Credit Hours.
This course consists of independent, original research under the direction of faculty advisor. May be conducted in bacteriology, virology, mycology, parasitology, and immunology.

MICR 6098. Thesis. 1-9 Credit Hours.
Registration for at least one term is required of M.S. candidates. Admission to candidacy for the Master of Science degree is required.

MICR 7000. Off Campus. 4 Credit Hours.
All off campus rotations must be approved by the designated faculty member prior to the beginning of the rotation (at least one week before the course begins). Credit will not be given for any rotation that has not been approved in advance. Required paperwork includes: “Course Approval” form, a written letter or email for acceptance form the physician preceptor with the start and end dates of the course/rotation, and a course description of your learning objectives and responsibilities during the rotation. Forms must include a complete address and telephone number for the off campus location or residence address for the student while at the off campus site. Forms will not be approved after the rotation has already begun. Contact the department for assistance with enrolling in this course.

MICR 7099. Dissertation. 1-9 Credit Hours.
Registration for at least two terms is required of Ph.D. candidates. In addition, Ph.D. candidates may be required to complete a course in Biostatistics. Prerequisites: Admission to candidacy for the Doctor of Philosophy degree.

Molecular Medicine (MMED)

Courses

MMED 5001. Molecular Medicine. 3 Credit Hours.
This course is designed to integrate the fundamental principles of molecular biology with modern medicine. The topics will include the basics of gene mapping, tactics used in the cloning of genes involved in diseases, the analysis of the structure and function of genes in relation to the characteristics of various diseases, alterations of the genome in disease states, and potential strategies to exploit this knowledge in gene therapy. This course will build upon the basic knowledge presented in Advanced Molecular Biology using specific examples of current and future applications of this new knowledge.

MMED 5015. Modern Methods in Cell and Molecular Biology. 1 Credit Hour.
This course is designed to introduce students to the basic experimental techniques used in the study of cell biology, molecular biology, and protein analysis.

MMED 5016. Fundamentals Of Biostatistics. 1 Credit Hour.
Fundamentals of modern biostatistics with special emphasis on proper design of experiments, critical analysis of data and their presentation will be offered. Particularly, modern biostatistical techniques required to solve the practical problems in bioinformatics will be discussed. A refresher of very basic concepts in statistics will be given; however, the course will be devoted to contemporary statistical analysis of data including hypothesis construction and testing, model validation, and data association. The course will include short lectures describing particular statistical problems faced by researchers in molecular biology, approaches to solve them and interpretation of the results of statistical analysis. Extensive practical training using popular statistical software packages will follow each lecture.

MMED 5017. Practical Bioinformatics for Molecular Biologists. 3 Credit Hours.
An introduction to bioinformatics through computer laboratory exercises designed to have students familiar with quantitative multi-dimensional data analysis methods. Problem areas such as sequence analysis, molecular evolution, gene regulation, and pathway construction and analysis will be approached from a practical viewpoint. Comparative genomics and functional genomics will also be covered. The required biostatistics background required for implementation will also be reviewed as part of this course. A combination of survey lectures on broader topics and focused computer exercises covering specific methodologies will be used.

MMED 5019. Graduate Colloquium In Molecular Medicine. 1 Credit Hour.
This course is designed to provide graduate students with experience in seminar preparation and presentation with an emphasis on critical evaluation of data and delivery of material.
MMED 6016. Advanced Molecular Cell Bio. 5 Credit Hours.
This course is a study of the organization and function of the genome at the molecule level. The topics include: gene structure, transcriptional control, RNA structure and processing, translation, genome replication and repair, the molecular biology of tumors, and the molecular genetics of development. This is a general course intended to introduce the student to the important molecules involved in the life processes of the cell. Their structure, function, localization, and interactions will be the focus of study. The students will also be introduced to the implications that these molecular events have in human health and disease.

MMED 6071. Supervised Teaching. 1-9 Credit Hours.
This course consists of teaching under the close supervision of instructors in Advanced Molecular Biology and Modern Methods in Cellular and Molecular Biology as laboratory assistants, review session, and tutorial leaders. Assistants may be called upon to present formal lectures.

MMED 6091. Seminars On Molecular Medicine. 1 Credit Hour.
Registration every term in residence is required of all Molecular Medicine students.

MMED 6097. Research. 1-9 Credit Hours.
This course consists of independent, original research under the direction of faculty advisor.

MMED 6098. Thesis. 1-9 Credit Hours.
This course consists of research under the supervision of a mentor to complete the requirements for an M.S. degree. Registration for at least one term is required of M.S. candidates.

MMED 7099. Dissertation. 1-9 Credit Hours.
This course consists of research under the supervision of a mentor to complete the requirements for a Ph.D. degree. Registration for at least two terms is required of Ph.D. candidates.

Neurology (NEUR)

Courses

NEUR 3005. Neurology Core Clerkship. 4 Credit Hours.
This core clerkship is designed to give the student experience in evaluation of patients with neurologic disorders an opportunity to master the neurological exam in inpatient ward and consultation settings, as well as outpatient settings. The student will be expected to participate in the complete care of assigned General Neurology Ward patients and patients on the Stroke Specialty Wards. Students will also participate in Neurology consult rounds and have an opportunity to see consult patients. They will be assigned to either the University Hospital or VA Neurology wards/consult services for two weeks of the rotation. They will spend one week of the rotation on the Stroke wards service and participate in stroke specialty clinics during that week. One week of the rotation will be devoted to participating in a variety of general neurology and specialty clinics. Students are required to perform appropriately focused history and physical exams, prepare written and verbal presentations, interpret laboratory data and develop a differential diagnosis and management plan on all assigned patients. The student will function as a sub-intern under the direct supervision of the Neurology resident. Considerable responsibility in the management of neurologic patients is provided on the inpatient ward services at the University Hospital and Audie L. Murphy VA Hospital. The student will work at least one weekend day and will participate in night call. The student will also spend one day each week in the adult Neurology Clinic evaluating patients with chronic neurologic problems. Attendance at daily rounds, consultation rounds, and formal conferences is expected. Students will also participate in Friday morning Neurology Grand Rounds.

NEUR 3029. Neurology Rotation Elective. Credit Hours.
This rotation is designed to give the student experience in evaluation of patients with neurologic disorders and an opportunity to master the neurological exam in inpatient ward and consultation settings, as well as outpatient settings. The student will be expected to participate in the complete care of assigned General Neurology Ward patients on the Stroke Specialty Wards. Students will also participate in Neurology Consult rounds and have an opportunity to see consult patients. You will be assigned to either the UH or VA Neurology wards/consult services for two weeks of the rotation. You will spend one week of the rotation on the Stroke wards service and participate in stroke specialty clinics during that week. One week of the rotation will be devoted to participating in a variety of general neurology and specialty clinics. Students are required to perform appropriately focused history and physical exams, prepare written and verbal presentations, interpret laboratory data and develop a differential diagnosis and management plan on all assigned patients. Students will also attend neurology morning report, the MS3 Neurology Lecture Series, selected Neurology Residency Lecture Series topics and Neurology Grand Rounds. Students will receive a clinical performance evaluation by the supervising attending and residents using the SOM 3rd year medical student evaluation form.

NEUR 3030. Research In Neurology. Credit Hours.
The student will participate in clinical or basic research projects that are being conducted in the Department of Neurology or other Departments involved in Neurologic and/or Neuroscience research. Students should arrange their research mentor relationship prior to seeking permission to schedule this elective and submit an outline of their research proposal and basic study design to Dr. Solomon at the beginning of the rotation. Completion of ongoing research projects is a realistic goal. This elective can be repeated depending upon the duration required for the research project. The student will receive a performance evaluation from the supervising faculty member. An outline of progress made during the rotation will be submitted to Dr. Solomon with a description of the importance of the research in the care of patients.

NEUR 4030. Neurology Subinternship - University Hospital & Audie Murphy VA. 4 Credit Hours.
The objective of this sub internship is to prepare students for the intense and responsible role of the intern. The sub intern is an integral member of the team and is required to participate in all team activities and participate in all medical care for her/his patients, under the supervision of the Neurology resident and attending. The student's clinical performance will be evaluated by the supervising attending and resident. The student will function as a sub-intern under the direct supervision of the Neurology resident. Considerable responsibility in the management of neurologic patients is provided on the inpatient ward services at the University Hospital and Audie L. Murphy VA Hospital. The student will work at least one weekend day and will participate in night call. The student will also spend one day each week in the adult Neurology Clinic evaluating patients with chronic neurologic problems. Attendance at daily rounds, consultation rounds, and formal conferences is expected. Students will also participate in Friday morning Neurology Grand Rounds.

NEUR 4032. Research In Neurology. 4 Credit Hours.
Several clinical and basic research projects, especially in the area of cerebral vascular disease, are being conducted in the Department of Neurology. Students may elect to work with the neurology faculty on one of these projects. This elective can be repeated depending upon the duration required for the research project. Student will receive a performance evaluation from the supervising faculty member. Discuss and arrange project through the department.
NEUR 4035. Neurocritical Care. 4 Credit Hours.
The goal of this elective is to give students exposure to the specialty of neurocritical care. Students will act in the role of intern, taking responsibility for a minimum of 2-3 patients. They will gain knowledge in the multi-system aspect of critical care along with the unique aspects relating to patients with central nervous system disorders/injury. Students will have ample opportunity for procedures including: arterial line placement, central line placement, intubation, bronchoscopy. They will also learn about ICP monitors, EEG and neuroradiology. Students will be supervised by interns and neurocritical care faculty.

NEUR 7000. Away Rotation in Neurology. 4 Credit Hours.
All off campus rotations must be approved by the designated faculty member prior to the beginning of the rotation (at least one week before the course begins). Credit will not be given for any rotation that has not been approved in advance. Required paperwork includes: “Course Approval” form, a written letter or email of acceptance from the physical preceptor with the start and ending dates of the course/rotation, and a course description of your learning objectives and responsibilities during the rotation. Forms must include a complete address and telephone number for the off campus location or residence address for the student while at the off campus site. Forms will not be approved after the rotation has already begun.

Neurosurgery (NRSR)

Courses

NRSR 4010. Neurosurgery Elective. 4 Credit Hours.
Senior students function as "interns" on the neurosurgery service. They admit and discharge neurosurgery patients. They perform history and physical examinations, and keep daily records on neurosurgery patients. They follow patients in the outpatient clinics, in the emergency department, in the intensive care units, and on general wards. They participate in operations for their patients. They participate in pre and post-operative care of neurosurgery patients. They present cases, attend all conferences, and take call as designated by the neurosurgery service. They mentor third-year medical students on the neurosurgery service. They learn how to obtain a history and perform a focused neuroexamination on a patient with brain and spinal cord injury. They are encouraged to participate in basic or clinical science research projects with neurosurgical faculty.

NRSR 7000. Off Campus Rotation In Neurosurgery. 4 Credit Hours.
All off campus rotations must be approved by the designated faculty member prior to the beginning of the rotation (at least one week before the course begins). Credit will not be given for any rotation that has not been approved in advance. Required paperwork includes: “Course Approval” form, a written letter or email of acceptance form the physician preceptor with the start and end dates of the course/rotation, and a course description of your learning objectives and responsibilities during the rotation. Forms must include a complete address and telephone number for the off campus location or residence address for the student while at the off campus site. Forms will not be approved after the rotation has already begun. Contact the Department of Neurosurgery for assistance with enrolling in this course.

Nursing (NURS)

NURS Courses

NURS 3110. Health Assessment: Clinical Application. 1 Credit Hour.
This course provides an opportunity for application of health assessment theory and skills in a simulated practice setting with emphasis on the adult and geriatric populations. Credit Hours: 1 semester hour (1 hour clinical skills laboratory). Prerequisites: NURS 3304 and NURS 3309.

NURS 3172. Pharmacotherapeutics: Psychiatric and Mental Health Nursing. 1 Credit Hour.
This course focuses on the nurse’s role in safe, effective pharmacotherapeutics for persons with psychiatric and mental health alterations. Success completion of semester 1 is required. Credit Hours: 1 semester hour (1 hour theory).

NURS 3204. Health Assessment: Theoretical Foundations. 2 Credit Hours.
This course focuses on the theory and practice of health assessment of individuals and families across the lifespan with emphasis on the adult and geriatric populations. Prerequisites: NURS 3303 and NURS 3309.

NURS 3205. Psychiatric and Mental Health: Theoretical Foundations. 2 Credit Hours.
This course focuses on the promotion, maintenance, and restoration of mental health across the lifespan with an emphasis on professional relationships, therapeutic communication, and the understanding of psychopathology. Success completion of semester 1 is required. Clock hours: 2 semester hours (2 hours theory).

NURS 3206. Psychiatric and Mental Health Nursing: Clinical Application. 2 Credit Hours.
This course provides the opportunity for clinical experience for nursing intervention development for promoting, maintaining, and restoring mental health across the lifespan integrating principles of professional relationships, therapeutic communication, and concepts of psychopathology. Clock hours: 2 semester hours (2 hours clinical). Prerequisites: NURS 3205 Corequisites: NURS 3205.

NURS 3207. Care Of Childbearing Families: Theoretical Foundations. 2 Credit Hours.
This course addresses holistic care of women and their families during the childbearing years with emphasis on health promotion and risk reduction. Successful completion of semester 1 is required. Clock hours: 2 semester hours (2 hours theory).

NURS 3208. Care Of Childbearing Families: Clinical Application. 2 Credit Hours.
This course provides opportunity for clinical application of holistic care of women and their families during the childbearing years with emphasis on health promotion and risk reduction. Clock hours: 2 semester hours (2 hours clinical) Prerequisite: NURS 3207.

NURS 3270. Professional Socialization 2. 2 Credit Hours.
This course addresses professional values, ethical and legal foundations, principles of social justice, history of nursing, and the roles of the 21st Century nurse with an emphasis on safety and quality. Credit Hour Allocation: 2 semester hours (2 hours theory). Admission to the Accelerated Undergraduate Program is required.
NURS 3271. Principles of Pharmacotherapeutics. 2 Credit Hours.
This course focuses on the nurse’s role and responsibilities in drug
terapy emphasizing safety related to drug therapy including principles
of pharmacology and accurate calculations. Credit Hour Allocation:
2 semester hours (2 hours theory). Prerequisite: admission to the
Accelerated Undergraduate Program.

NURS 3272. Health Assessment and Promotion: Theoretical
Foundations. 2 Credit Hours.
This course focuses on the theory and practice of health assessment
of individuals and families across the lifespan. Admission to the Accelerated
Undergraduate Program is required. Credit Hour Allocation: 2 semester
hours (2 hours theory).

NURS 3273. Health Assessment and Promotion: Clinical Application.
2 Credit Hours.
This course focuses on the theory and practice of health assessment
of individuals and families across the lifespan. Credit Hour Allocation: 2
semester hours (2 hours theory). Prerequisite: NURS 3272.

NURS 3274. Psychiatric and Mental Health Nursing: Theoretical
Foundations. 2 Credit Hours.
This course focuses on the promotion, maintenance, and restoration
of mental health across the lifespan with an emphasis on professional
relationships, therapeutic communication, and the understanding of
psychopathology. Credit Hour Allocation: 2 semester hours (2 hours
theory). Successful completion of Semester 1 is required.

NURS 3275. Psychiatric and Mental Health Nursing: Clinical
Application. 2 Credit Hours.
This course provides clinical experience for nursing intervention
development for promoting, maintaining, and restoring mental health
across the lifespan integrating principles of professional relationships,
therapeutic communication, and concepts of psychopathology. Credit Hour
Allocation: 2 semester hours (2 hours theory). Prerequisites: NURS 3172
and NURS 3274.

NURS 3303. Concepts of Professional Nursing. 3 Credit Hours.
This course addresses professional role development integrating concepts
of multidimensional care and skills of inquiry and analysis to inform clinical
decision making, professional judgement, and lifelong learning. Admission
to the traditional undergraduate program is required.

NURS 3304. Pharmacotherapeutics. 3 Credit Hours.
This course provides the foundation for safe, effective drug therapy
and the role of the nurse in health promotion, disease prevention, and
management. Successful completion of semester 1 is required.

NURS 3305. Foundations of Clinical Nursing Practice: Clinical
Application. 3 Credit Hours.
This course provides practice experience for clinical decision making and
interventions with individuals, including a special focus on the older adult,
in diverse settings using a patient centered, holistic, caring framework.
Prerequisites:NURS 3201, NURS 3303, and NURS 3309.

NURS 3308. Pathophysiology. 3 Credit Hours.
This course focuses on the concepts of pathophysiology essential to
understanding alterations in body systems and developing clinical decision
making for health promotion, risk reduction, and disease management.
Clock hours: 3 semester hours (3 hours theory). Admission to the
Traditional Track of the undergraduate program is required.

NURS 3321. Transitions In Professional Nursing. 3 Credit Hours.
This course addresses professional role development for Registered Nurses who are returning to school to prepare for advanced generalist
roles as Clinical Nurse Leaders or Administrative Managers at the
graduate level. The focus is on integrating multidimensional care, skills
of inquiry and analysis, and a broadened focus on individuals, families,
and populations to inform clinical reasoning in changing health care
environments. Admission to the Alternate Entry Masters Program is
required. Clock Hours: 3 semester hours (3 hours theory).

NURS 3330. Foundations of Clinical Nursing Practice -Theoretical
Foundations. 3 Credit Hours.
This course provides a scientific foundation for clinical practice with
individuals in diverse settings using a concept-based, patient-centered,
holistic framework.

NURS 3365. Pharmacology. 3 Credit Hours.
This course provides the foundation for safe, effective drug therapy
and the role of the nurse in health promotion, disease prevention, and
management.

NURS 3370. Pathophysiology. 3 Credit Hours.
This course focuses on the concepts of pathophysiology essential to
understanding alterations in body systems and developing clinical decision
making for health promotion, risk reduction, and disease management.
Admission to the Accelerated Undergraduate Program is required.

NURS 3371. Foundations of Nursing Care: Clinical Applications. 3
Credit Hours.
In this course the student will have the opportunity to develop foundational
clinical competencies for providing safe, quality patient care in a clinical
setting. Credit Hour Allocation: 3 semester hours (3 hours clinical).
Prerequisite: NURS 3372.

NURS 3372. Family Nursing Care: Theoretical Foundations. 3 Credit
Hours.
This course focuses on the care of families across the lifespan with
emphasis on childbearing and childrearing families and their roles,
functions, and dynamics with regard to health promotion and risk
reduction. Successful completion of Semester 1.

NURS 3373. Family Nursing Care: Clinical Applications. 3 Credit
Hours.
This course provides the opportunity for clinical application of nursing
care for families across the lifespan with emphasis on childbearing and
childrearing families and their roles, functions, and dynamics with regard
to health promotion and risk reduction. Credit Hour Allocation: 3 semester
hours (3 hours clinical). Prerequisites: NURS 3372 and NURS 3317.

NURS 3374. Research and Evidence-Based Practice. 3 Credit Hours.
This course integrates concepts from research and information
management that apply to the generation, appraisal, use, and
dissemination of evidence that informs safe, quality nursing practice.
Credit Hour Allocation: 3 semester hours (3 hours theory). Successful
completion of semester 1.

NURS 3375. Research And Evidence Based Practice. 3 Credit Hours.
This course addresses the role of research in professional nursing
practice including conduct of research, research sources utilization and
dissemination, and principles and models of evidence-based practice.
NURS 3402. Nursing Research & Evidence-Based Practice. 4 Credit Hours.
This course addresses the role of research in professional nursing practice including conduct of research, research sources, utilization and dissemination, and principles and models of evidence-based practice. Clock hours: 4 semester hours (4 hours theory). Successful completion of semester 1 is required.

NURS 4110. Pharmacotherapeutics: Disease Management 1. 1 Credit Hour.
This course focuses on the nurse’s role in, safe, effective pharmacotherapeutics for individuals with conditions affecting the immune, endocrine, respiratory, cardiovascular, gastrointestinal, and musculoskeletal systems.

NURS 4111. Pharmacotherapeutics: Disease Management 2. 1 Credit Hour.
This course focuses on the nurse’s role in, safe, effective pharmacotherapeutics for individuals across the lifespan who have acute life-threatening conditions.

NURS 4210. Child and Family Health: Theoretical Foundations. 2 Credit Hours.
This course addresses holistic care of children and families with emphasis on health promotion, disease management, and injury prevention through therapeutic nursing assessment and intervention across environments. Credit Hour Allocation: 2 semester hours (2 hours theory). Successful completion of semester 2 is required.

NURS 4211. Child and Family Health: Clinical Application. 2 Credit Hours.
This course addresses holistic care of children and families with emphasis on health promotion, disease management, and injury prevention through therapeutic nursing assessment and intervention across environments. Credit Hour Allocation: 2 semester hours (2 hours clinical) Prerequisites: NURS 4210 Corequisites: NURS 4210.

NURS 4217. Population Focused Health: Clinical Application. 2 Credit Hours.
This course provides experience for application of population focused health promotion and disease and injury prevention based on determinants of local, national, and global health including lifestyle, environmental, cultural, and genetic factors. Credit Hour Allocation: 2 semester hours (2 hours clinical) Prerequisites: NURS 4217.

NURS 4227. Population Focused Health: Clinical Applications. 2 Credit Hours.
This course provides clinical experience for application of population focused health promotion, and disease and injury prevention based on determinants of local, national, and global health including lifestyle, environment, cultural, and genetic factors. Credit Hour Allocation: 2 semester hours (2 hours clinical) Prerequisites: NURS 4227.

NURS 4230. Leadership and Management: Clinical Application. 2 Credit Hours.
This course provides opportunity for clinical application of nursing leadership and management in diverse settings to promote quality patient outcomes. Credit Hour Allocation: 2 semester hours (2 hours clinical) Prerequisites: NURS 4230.

NURS 4311. Care Of The Adult 1: Theoretical Foundations. 3 Credit Hours.
This course focuses on theoretical principles regarding holistic care of the adult experiencing chronic health problems within diverse settings. Credit Hour Allocation: 3 semester hours (3 hours theory) Prerequisites: Completion of Semester 2.

NURS 4314. Care of The Adult 1: Clinical Application. 3 Credit Hours.
This course provides opportunity for clinical application regarding holistic care of the adult experiencing chronic health alterations. Credit Hour Allocation: 3 semester hours (3 hours clinical). Prerequisites: NURS 4311 Corequisites: NURS 4311.

NURS 4315. Care of The Adult 2: Theoretical Foundations. 3 Credit Hours.
This course addresses holistic care of the acutely and critically ill adult experiencing complex health alterations while in acute care settings. Credit Hour Allocation: 3 semester hours (3 hours theory). Prerequisites: NURS 4311 and NURS 4314.

NURS 4316. Care of The Adult 2: Clinical Application. 3 Credit Hours.
This course provides clinical experience for holistic patient-centered care of the acutely and critically ill adult experiencing complex health alterations within acute care settings. Credit Hour Allocation: 3 semester hours (3 hours clinical) Prerequisites: NURS 4315 Corequisites: NURS 4315.

NURS 4317. Population Focused Health: Theoretical Foundations. 3 Credit Hours.
This course addresses population focused health promotion and disease and injury prevention based on determinants of local, national, and global health including lifestyle, environmental, cultural, and genetic factors. Credit Hour Allocation: 3 semester hours (3 hours theory). Successful completion of semester 3.

NURS 4319. Leadership and Management: Theoretical Foundations. 3 Credit Hours.
This course presents theoretical principles of nursing leadership and management in diverse settings to promote quality patient outcomes. Credit Hour Allocation: 3 semester hours (3 hours theory). Successful completion of semester 3 is required.

NURS 4320. Leadership and Management: Clinical Application. 3 Credit Hours.
This course provides opportunity for clinical application of nursing leadership and management in diverse settings to promote quality patient outcomes. Credit Hour Allocation: 3 semester hours (3 hours clinical). Prerequisites: NURS 4319.

NURS 4327. Population Focused Health: Theoretical Foundations. 3 Credit Hours.
This course provides clinical experience for application of population focused health promotion, and disease and injury prevention based on determinants of local, national, and global health including lifestyle, environment, cultural, and genetic factors. Credit Hour Allocation: 3 semester hours (3 hours theory). Successful completion of semester 3 is required.

NURS 4329. Leadership and Management: Theoretical Foundations. 3 Credit Hours.
This course presents theoretical principles of nursing leadership and management in diverse settings to promote quality patient outcomes. Credit Hour Allocation: 3 semester hours (3 hours theory). Successful completion of Semester 3 is required.

NURS 4333. Nursing Leadership: Theoretical Foundations. 3 Credit Hours.
This course presents theoretical principles of nursing leadership and management in diverse settings to promote quality patient outcomes. Clock Hours: 3 semester hours (3 hours theory). Prerequisites: NURS 3272 and NURS 3273.
This course is the clinical component for Disease Management 1: Theoretical Foundations and Disease Management II: Theoretical Foundations that focuses on the nursing care and decision making related to multiple disease concepts across the lifespan. (4 hrs Clinical) Prerequisites: NURS 4501, NURS 4110, NURS 4502 AND NURS 4111.

NURS 4420. Transition To Professional Nursing Practice: Clinical Immersion. 4 Credit Hours.
This course is a clinical immersion experience designed to provide comprehensive learning opportunities that promote integration of baccalaureate learning outcomes to prepare the graduate for professional nursing practice.

NURS 4423. Clinical Immersion. 4 Credit Hours.
This course facilitates the transition of the student into professional practice through preceptorship by Registered Nurses in a variety of settings. Credit Hour Allocation: 4 semester hours (4 hours clinical). Completion of all Accelerated Undergraduate Program courses is required.

NURS 4501. Disease Management 1: Theoretical Foundations. 5 Credit Hours.
This course emphasizes nursing care and decision making regarding patients across the lifespan experiencing alterations in metabolism, circulation, oxygenation, elimination, immunology/inflammation, and sexuality. Successful completion of semester 2 is required. (5 hrs Theory).

NURS 4502. Disease Management 2: Theoretical Foundations. 5 Credit Hours.
This course emphasizes nursing care and decision making regarding patients across the lifespan experiencing alterations in coordination and control, cellular differentiation, cognitive/sensory, fluid and electrolytes, sepsis, and trauma. (5 hrs Theory) Prerequisites: NURS 4501 and NURS 4110.

NURS 5141. Roles of The Teacher In Contemporary Nursing Education. 1 Credit Hour.
This course focuses on the investigation of the roles of the educator in contemporary nursing. The course provides the opportunity to design, implement, and evaluate learning experiences in settings such as nursing programs, staff development, and/or continuing education. Emphasis is on the application of teaching, learning, and evaluation strategies. Clock hours: one clock hour class (15 clock hours). Prerequisites: NURS 5371 or equivalent Corequisites: NURS 5241.

NURS 5226. Financial and Economic Evidence In Health Care. 3 Credit Hours.
This course focuses on principles of health care economics; third-party reimbursement; costing; budget types, process and monitoring; economic evaluation methods; and business plan importance, components and writing. Clock Hours: 3 hours class (45 hours class).

NURS 5241. Application of Roles Of The Teacher In Contemporary Nursing Education. 2 Credit Hours.
This course focuses on the integration and application of the roles of the educator in contemporary nursing for the clinical, laboratory, and/or simulation environments. The course provides the opportunity to implement adult teaching and learning experiences in nursing areas of academia, staff development, and/or continuing education. Clock hours: six clock hours practicum (90 clock hours). Prerequisites: NURS 5371 or equivalent Corequisites: NURS 5141.

NURS 5306. Advanced Theory For The Practice of Nursing. 3 Credit Hours.
This course explores and analyzes theories and propositions from social, psychological, medical, nursing, and interdisciplinary relations as a foundation to understanding research, practice, and scholarship in nursing. Clock hours: three semester clock hours class (45 clock hours).

NURS 5307. Using Research For The Practice Of Nursing. 3 Credit Hours.
This course provides the foundations for the use of research in nursing science and healthcare. Emphasis is on designing, interpreting, and evaluating research. Clock hours: three clock hours class (45 clock hours). Prerequisite: NURS 5306.

NURS 5310. Organizational Systems and Administrative Strategies. 3 Credit Hours.
This course examines contemporary influences, theories, principles, and functional strategies related to management/administration and organizational systems at the micro, meso, and macro levels. The effects of external and internal environmental changes on complex systems, role relationships, team building, planning, structure, communication, negotiation, and consultation in nursing and inter-professional systems are discussed. Prerequisites: NURS 5339 Corequisites: NURS 5339.

NURS 5318. Nursing and Health Systems Management 1. 3 Credit Hours.
This is one of a series of graduate level courses that provides the foundation for nursing management of clinical units, departments, and service lines in health care systems. This course is designed to provide the knowledge and skills for an effective and efficient human resource system to patient care services at multiple levels from employment screening to ongoing development. The processes and skills for coaching individuals and groups and leading through consultation are emphasized. Relationship management and influencing behaviors are addressed. The components of the Magnet Hospital model and strategies, with evidence, are emphasized for excellence. Students emerge with an understanding of and ability to apply human resource principles and skills in the development of patient care staff and quality work environment to assure excellence in patient care delivery. Prerequisites: NURS 5339 Corequisites: NURS 5339.

NURS 5338. Advanced Pathophysiology. 3 Credit Hours.
This course focuses on pathophysiological processes across the lifespan and the development of clinical reasoning skills that distinguish the relationship between normal physiology and specific system alterations produced by injury and disease. Particular attention will be given to etiology, pathogenesis, developmental and environmental influences, and clinical manifestations of major health problems. 3 clock hours class (45 hours class).

NURS 5339. Leadership For Quality, Safety And Health Policy. 3 Credit Hours.
The course focuses on the principles and theories germane to leadership in complex organizations; models, tools, and processes to measure health care outcomes; and forces that influence health policy and nursing practice. Clock Hours: 3 clock hours class (45 hours class).

NURS 5356. Financial and Economic Evidence In Health Care. 3 Credit Hours.
This course focuses on principles of health care economics; third-party reimbursement; costing; budget types, process and monitoring; economic evaluation methods; and business plan importance, components and writing. Clock Hours: 3 hours class (45 clock hours).
NURS 5371. Curriculum and Instruction In Nursing. 3 Credit Hours.
This course is designed to introduce students to the process of curriculum development. The teaching, learning, and evaluation principles are examined from the standpoint of and the effect on various curriculum patterns. The course provides opportunity for examination of factors that influence curriculum development, implementation, and evaluation. Clock Hours: three class hours per week.

NURS 6071. Supervised Teaching. 1-6 Credit Hours.
Directed teaching in the major area under close supervision of one or more faculty members is required of each doctoral student. Up to six semester credit hours toward a degree may be granted to the student who satisfactorily completes the graduate courses in Supervised Teaching in her/his area of study. (Optional).

NURS 6098. Thesis. 1-4 Credit Hours.
A total of 6.0 semester credit hours (including 2.0 semester credit hours for NURS 6298 Development of a Thesis Proposal) is required for thesis credit. (Completion of thesis is recommended but not required within the master’s program. Specific policies regarding theses are available from the Office of the Graduate Nursing Program.) The consent of the thesis advisor is required for enrollment.

NURS 6101. Advanced Mental Health Concepts: Clinical Applications. 1 Credit Hour.
The focus of this course is developing advanced practice mental health nursing skills by providing holistic care through assessment, crisis intervention, pharmacological management, biological or other therapies, and consultation/referral. Clock Hours: 3 clock hours clinical (45 hours clinical).

NURS 6110. Advanced Health Assessment: Clinical Application. 1 Credit Hour.
This course focuses on applying advanced health assessment skills; developing clinical basis for advanced assessment in nursing practice; collecting, interpreting and summarizing database; documenting findings; and presenting complete problem list. Clock Hours: 3 clock hours clinical (45 hours clinical). Prerequisites: An undergraduate health assessment course or comparable equivalent and: Corequisites: NURS 6210.

NURS 6113. Nursing and Health Systems Management 2: Seminar. 1 Credit Hour.
This course provides students the opportunity to discuss the role of the Administrative Nurse Management and Nurse Executive in a clinical service, department, or service line across the continuum of care. The focus is on the development of knowledge and skills for strategic planning, operational management, regulatory management, organizational priority setting, development of inter-professional relationships, and implementation of the evidence-based capstone project. Clock hours: 15 hours class seminar. Prerequisites: NURS 6331, NURS 6203, NURS 6220, NURS 6313 and NURS 5318 Corequisites: NURS 6813.

NURS 6114. Psychiatric Mental Health Nurse Practitioner (PMHN) Diagnosis and Management 3: Seminar. 1 Credit Hour.
This course is a seminar on full implementation of the primary care NP role in managing and negotiating the healthcare system with patients and monitoring and ensuring quality healthcare practice. Prerequisites: NURS 6416 and NURS 6417 Corequisites: NURS 6814.

NURS 6120. Clinical Nurse Leader Role 2: Seminar. 1 Credit Hour.
This seminar is designed to provide students enrolled in the CNO capstone clinical course the opportunity to discuss and analyze leadership challenges in the development and implementation of the CNL role in various health care microsystems. Clock hours: 1 semester class hour (15 clock hours class). Prerequisite: NURS 6230 and NURS 6233 Corequisites: NURS 6822.

NURS 6128. Pediatric Nurse Practitioner (PNP) Primary Care Diagnosis And Management 3: Seminar. 1 Credit Hour.
This course focuses on discussing implementation of the PNP role in managing and negotiating the healthcare system with patients and monitoring and ensuring quality healthcare practice. Prerequisites: NURS 6428 and NURS 6429 Corequisites: NURS 6828.

NURS 6130. Nurse Practitioner Conceptual Basis For Advanced Practice Nursing. 1 Credit Hour.
The purpose of this course is to provide a conceptual basis for advanced practice nursing. Students examine nurse practitioner competencies with emphasis on acquiring knowledge and skills to assume leadership roles in health care delivery, health policy, and complex health care systems. Research and quality improvement mechanisms to implement change are explored.

NURS 6132. Population State of the Science. 1 Credit Hour.
This course provides a foundation for understanding of evidence-based clinical prevention and population care and services to individuals, families and aggregates/identified populations through the identification of key competencies and relevant and predictable learning opportunities in their practice settings.

NURS 6134. Clinical Application 1: Facilitation of Learning in an Academic Setting. 1 Credit Hour.
This practicum course provides students the opportunity to explore the scope and responsibilities of teaching in an academic setting; including exposure to regulatory processes and faculty governance, as well as, faculty practice, service research and scholarship activities. Students will also begin direct engagement in teaching students in their area of practice or population foci in classroom, online, lab, simulation and clinical settings. Prerequisites: NURS 6132 and NURS 6260 Corequisites: NURS 6262.

NURS 6136. Clinical Application 2: Facilitation of Learning in an Academic Setting. 1 Credit Hour.
This practicum course provides students the opportunity to expand direct engagement in teaching students in their area of practice or population foci in classroom, online, lab, simulation and clinical settings. Focus is on assuming a beginning leadership role in designing and implementing learning modules and strategies that support curriculum outcomes and reflect best practices, as well as, assumption of clinical teaching responsibilities and course maintenance in collaboration with faculty preceptor. Prerequisites: NURS 6132, NURS 6260, NURS 6262, and NURS 6134 Corequisites: NURS 6264.

NURS 6138. Clinical Application 3: Facilitation of Learning Across Health Systems. 1 Credit Hour.
This practicum course provides students the opportunity to explore the scope and responsibilities of educators in community health system environments. Clinical activities support understanding responsiveness to human resourcing, competency maintenance, safety, and staff development for enhanced clinical and system outcomes. Additional focus includes use of technology and informatics applications that support learning in diverse practice settings. Prerequisites: NURS 6132, NURS 6260, NURS 6262, NURS 6134, NURS 6264 and NURS 6136 Corequisites: NURS 6266.

NURS 6148. Family Nurse Practitioner (FNP) Diagnosis And Management 3: Seminar. 1 Credit Hour.
This course is a seminar on full implementation of the primary care NP role in managing and negotiating the healthcare system with patients and monitoring and ensuring quality healthcare practice. Prerequisites: NURS 6449 and NURS 6450 Corequisites: NURS 6848.
NURS 6201. Advanced Mental Health Concepts. 2 Credit Hours.
The focus of this course is developing the theoretical basis for advanced practice nursing in mental health using a holistic perspective to examine the etiology, meaning, and consequences of human behavior. Clock Hours: 2 clock hours class (30 hours class). Corequisites: NURS 6101.

NURS 6203. Advanced Financial Management: Practicum. 2 Credit Hours.
This practicum provides students the opportunity to engage in the advanced financial management activities of a selected healthcare institution while working with a designated preceptor. Clock hours: 90 clock hours clinical practicum. Prerequisite: NURS 5356 Corequisites: NURS 5501.

NURS 6210. Advanced Health Assessment and Clinical Reasoning. 2 Credit Hours.
This course will build upon health assessment skills developed in the professional nurse’s basic educational program. The theoretical and clinical basis for assessment in advanced practice will be developed. The process whereby the advanced practitioner utilizes comprehensive physical, psychosocial, and cultural assessment across the lifespan, to gather specific data relevant to common health problems, is demonstrated. Faculty and preceptors facilitate laboratory and clinical experiences that focus on assessment of clients and presentation of findings in a variety of settings. An undergraduate health assessment course or comparable experience is required. Clock Hours: A 45-clock-hour clinical practicum is required. Course Fees: Lab $30 Corequisites: NURS 6110.

NURS 6212. Psychiatric Mental Health Nurse Practitioner (PMHNP) Diagnosis & Mgt 1: Clinical Application. 2 Credit Hours.
Primary care experience in health promotion, disease prevention, diagnosis and management of common psychiatric illnesses. Additionally, this course emphasizes collaborative, partnership development among patients, families, and interprofessional teams. Clock Hours: 90 hours clinical practicum Corequisites: NURS 6412.

NURS 6220. Program Planning and Evaluation: Practicum. 2 Credit Hours.
This course provides the opportunity to explore clinical or management problems in a variety of health care settings. The focus of this course is development of program planning and evaluation projects using analytical and problem-solving skills, processes, strategies, and evidenced-based practice. Students will be given the opportunity to work with an institutional based preceptor to develop theory-based interventions and evaluation strategies. Clock hours: 90 clock hours practicum. Prerequisites: NURS 5356, NURS 5306, and NURS 5307 Corequisites: NURS 6313.

NURS 6223. Pediatric Nurse Practitioner (PNP) Primary Care Diagnosis And Management 1: Clinical Application. 2 Credit Hours.
The focus of this course is on primary care experiences promoting health, preventing disease and diagnosing and managing common illnesses from birth through adolescence and developing collaborative partnerships among patients, families, and interprofessional teams. Clock Hours: 90 clock hour clinical practicum Corequisites: NURS 6423.

NURS 6230. Clinical Nurse Leader 1: Role Of The Adv. Generalist In Healthcare Microsystems. 2 Credit Hours.
The focus of this course is on assessment of clinical microsystems in healthcare settings to identify needed changes in clinical trajectory for patients within the system. Development of the role of the CNL as a patient care coordinator and educator for an interprofessional team is the aim of this course. Improving patient safety, quality outcomes, and planning for implementation of innovations in care based on evidence-based practice will be discussed. Clock hours: 30. Prerequisites: NURS 5339, NURS 5338, NURS 6210, NURS 6302, NURS 5306, and NURS 5307.

NURS 6233. Clinical Nurse Leader 1: Role Of The Adv Generalist In Healthcare Microsystems - Clin Applications. 2 Credit Hours.
This course is a practicum course designed to assist the CNL is assessing a particular clinical microsystem of healthcare and designing educational programs for patients, families, and the interprofessional team. The focus of the assessment is on improving patient safety and selected quality outcomes based on evidence-based practice. Clock hours: 90 clinical clock hours. Prerequisites: NURS 5339, NURS 5338, NURS 6210, NURS 6302, NURS 5306, and NURS 5307 Corequisites: NURS 6230.

NURS 6248. Family Nurse Practitioner (FNP) Diagnosis and Management 1: Clinical Application. 2 Credit Hours.
The focus of this course is on primary care experiences promoting health, preventing disease, diagnosing and managing common illness in diverse populations, and on developing collaborative partnerships with patients, families, and interprofessional teams. Clock Hours: 90 hours clinical practicum Corequisites: NURS 6448.

NURS 6250. Advanced Health Promotion, Health Protection, and Disease Prevention. 2 Credit Hours.
Students analyze theories and research from nursing, health promotion, health protection and disease prevention. Family, human development, patient education and community are the foundation for exploring the phenomena of family focused care. Data grounded in epidemiological sources, health histories and family assessments are examined as the basis for identification of risk factors. Prerequisites: NURS 5306 and NURS 5307.

NURS 6260. Intro: Nursing Education Theories & Trends. 2 Credit Hours.
This course will introduce the nursing education theories and trends that influence the development of nursing education programs in academic and service settings.

NURS 6262. Curriculum. 2 Credit Hours.
This course is designed to introduce the student to the process of curriculum development. The teaching and learning processes are examined from the standpoint of education and nursing research and the effect on various curriculum patterns. Students are introduced to selected learning theories and strategies to promote critical thinking and active learning. The course provides opportunity for examination for factors that influence curriculum development, implement, and evaluation in interprofessional education. Prerequisites: NURS 6132 and NURS 6260 Corequisites: NURS 6134.
NURS 6264. Strategies that Facilitate Learning Across Delivery Modalities and Systems. 2 Credit Hours.
This course focuses on theory and evidence-based strategies enacted to create successful learning and environments; including responsiveness to individual student and staff characteristics and learning needs, desired outcomes, content and context. Additional focus includes technology and informatics applications that support learning in classroom, distance, skills lab, simulation, clinical education, and health care systems practice sites. Prerequisites: NURS 6132, NURS 6260, NURS 6262 and NURS 6134. Corequisites: NURS 6136.

NURS 6266. Evaluation in Education. 2 Credit Hours.
This course is designed to introduce the student to the process of curriculum evaluation. Strategies for assessing and evaluating learning outcomes will be examined. Students are introduced to methods of classroom and clinical evaluation. The course provides opportunity for examination of comprehensive program evaluation. Prerequisites: NURS 6132, NURS 6260, NURS 6262, NURS 6134, NURS 6132, NURS 6138 and NURS 6136. Corequisites: NURS 6138.

NURS 6298. Develop Thesis Proposal. 2 Credit Hours.
The focus of this course is development and refinement of the thesis proposal. Must have consent of thesis advisor to enroll in this course and the course is completed when the proposal is approved by the thesis advisors. Prerequisites: NURS 5306 and NURS 5307.

NURS 6302. Advanced Pharmacotherapeutics. 3 Credit Hours.
This course focuses on advanced practice knowledge and skills in the therapeutic use of pharmacologic agents including pharmacologic treatment of major health problems, pharmacokinetics principles, pharmacodynamics, pharmacogenomics and legal aspects of prescribing. Clock Hours: Three clock hours class (45 hours class). Prerequisites: NURS 5306.

NURS 6317. Healthcare Information Systems and Patient Care Technology. 3 Credit Hours.
This course is an introduction to the healthcare and nursing informatics and computing environment. It provides a basis for understanding the impact of information technology on health care practice and critical thinking in clinical decision making. Theoretical and applied approaches furnish a basis for understanding and participating in the use of informatics systems in health care and nursing. Emphasis is on the use of technology to access knowledge and to create science-based practice protocols for informed clinical decision making in health care and nursing. NOTE: First course of two in Informatics Minor - or - may be taken as an Elective course. This course requires basic computer competencies. Clock hours: Three clock hours class.

NURS 6331. Advanced Financial Management. 3 Credit Hours.
This course covers advanced financial management concepts relevant to managing the business of healthcare. Key concepts covered include principles of advanced financial management, interpretation of financial statements, regulatory requirements imposed by payers and accreditors, advanced budgeting and variance analysis, forecasting, and productivity management. The role of the Administrative Nurse Manager in interprofessional financial planning for quality, safety, and financial stability will be addressed. Prerequisites: NURS 5356. Corequisites: NURS 6203.

NURS 6353. Transforming Complex Healthcare Systems For Quality and Safety. 3 Credit Hours.
This course focuses on the analysis, synthesis, and application of science to address current and emerging problems related to patient care quality and safety within a healthcare system. Organizational theories and culture, and the dynamic forces at microsystem, mesosystem, and macrosystem levels are explored. The unique role of advanced nursing in quality improvement and conceptualization and redesign of effective care delivery models that address gaps in science and delivery of patient care services will be explored. Clock hours: 45 clock hours class. Prerequisites: NURS 5339.

NURS 6380. Fundamentals of Epidemiology. 3 Credit Hours.
This course is designed to study the distribution and determinants of health and disease in human populations. Improving health by altering personal and environmental risk factors will be a major focus. Epidemiological research using technology and public health informatics will be introduced. Clock hours: 45 clock hours.

NURS 6412. Psychiatric Mental Health Nurse Practitioner Diagnosis and Mgmt: Concepts and Theory 1. 4 Credit Hours.
This course provides the theoretical basis for the competencies of the Psychiatric Mental Health Nurse Practitioner (PMHNP). This course lays the scientific foundation for independent practice as the RN transitions to the role of the Nurse Practitioner in health promotion, disease prevention, diagnosis and management of common illnesses in primary healthcare psychiatric practice across the lifespan. Using self-directed learning strategies, disorders of approximately one half of the physiologic/ psychological systems are examined. Psychotherapies and theories of psychopathology are surveyed. Additionally, this course emphasizes collaborative, partnership development among patients, families, and interprofessional teams. Clock Hours: 60 clock hours class. Prerequisites: NURS 5306, NURS 5307, NURS 5356, NURS 5339, NURS 6210, NURS 6302, NURS 6201, NURS 5338 and NURS 6380. Corequisites: NURS 6212.

NURS 6416. Psychiatric Mental Health Nurse Practitioner (PMHNP) Diagnosis And Mgmt: Concepts & Theory 2. 4 Credit Hours.
The focus of this course is increasing refinement of the Psychiatric Mental Health Nurse Practitioner (PMHNP) role in health promotion, disease prevention, diagnosis and management in psychiatric practice with diverse populations across the lifespan. Using problem-based and self-directed learning strategies, disorders of the remaining physiologic systems and psychiatric disorders are examined. Emphasis is placed on differentiating signs and symptoms to formulate possible diagnoses and determining the effect of the illness on the family. In addition, the nurse practitioner’s role as a collaborative member of the interprofessional team will be evaluated. Prerequisites: NURS 6412 and NURS 6212.
NURS 6417. Psychiatric Mental Health Nurse Practitioner Diagnosis and Management 2: Clinical Application. 4 Credit Hours.
The focus of this course is increasing refinement of the Psychiatric Mental Health Nurse Practitioner role in health promotion, diagnosis, and management in psychiatric practice in diverse populations across the lifespan. Emphasis is placed on care of persons with complex health problems. In addition, the nurse practitioner’s role as a collaborative member of the interprofessional team will be evaluated. Prerequisites: NURS 6412 and NURS 6212 Corequisites: NURS 6416.

NURS 6423. Pediatric Nurse Practitioner (PNP) Primary Care Diagnosis And Management: Concepts And Theory 1. 4 Credit Hours.
The focus of this course is on the theoretical basis for competencies of the Nurse Practitioner (NP). This course lays the scientific foundation for independent practice as the RN transitions to the role of the NP in health promotion, disease prevention, diagnosis, and management of common illnesses in primary healthcare practice in diverse infant, child and adolescent populations. Using self-directed learning strategies, disorders of approximately one-half of the physiologic systems are examined. Additionally, this course emphasizes collaborative partnership development among patients, families, and interprofessional teams. Clock Hours: 60 clock hours didactic Prerequisites: NURS 5306, NURS 5307, NURS 5336, NURS 5337, NURS 6210, NURS 6210, NURS 5338, NURS 6380 Corequisites: NURS 6223.

NURS 6428. Pediatric Nurse Practitioner (PNP) Primary Care Diagnosis And Management: Concepts And Theory 2. 4 Credit Hours.
The focus of this course is increasing refinement of the Pediatric Nurse Practitioner role in health promotion, disease prevention, diagnosis and management in primary health care practice with diverse populations from birth through adolescents. Using problem-based and self-directed learning strategies, disorders of the remaining physiologic systems are examined. Emphasis is placed on differentiating signs and symptoms to formulate possible diagnoses and determining the effect of the illness on the family. In addition, the nurse practitioner’s role as a collaborative member of the interprofessional team will be evaluated. Prerequisites: NURS 6423 and NURS 6223 Corequisites: NURS 6429.

NURS 6429. Pediatric Nurse Practitioner (PNP) Primary Care Diagnosis And Management 2: Clinical Application. 4 Credit Hours.
The focus of this course is on refining the PNP role in primary healthcare practice in diverse populations. Emphasis is placed on care of persons with complex health problems from birth through adolescence. In addition, the nurse practitioner’s role as a collaborative member of the interprofessional team will be evaluated. Prerequisites: NURS 6423 and NURS 6223 Corequisites: NURS 6428.

NURS 6448. Family Nurse Practitioner (FNP) Diagnosis and Management: Concepts and Theory 1. 4 Credit Hours.
The focus of this course is on the theoretical basis for the competencies of the Nurse Practitioner (NP). This course lays the scientific foundation for independent practice as the RN transitions to the role of the Nurse Practitioner in health promotion, disease prevention, and diagnosis and management of common illnesses in primary healthcare practice in diverse populations across the lifespan. Additionally, this course emphasizes collaborative, partnership development among patients, families, and interprofessional teams. Clock Hours: 60 hours class Prerequisites: NURS 5306, NURS 5307, NURS 5337, NURS 5339, NURS 6210, NURS 6302, NURS 6201, NURS 5338, NURS 6380 Corequisites: NURS 6248.

NURS 6449. Family Nurse Practitioner (FNP) Diagnosis and Management: Concepts and Theory 2. 4 Credit Hours.
The focus of this course is increasing refinement of the Family Nurse Practitioner role in health promotion, diagnosis and management in primary healthcare practice in diverse populations. Problem-based and self directed learning strategies are used to review disorders of the remaining physiologic systems. Emphasis is placed on differentiating signs and symptoms to formulate possible diagnoses and determining the effect if the illness on the family. In addition, the nurse practitioner’s role as a collaborative member of the interprofessional team will be evaluated. Prerequisites: NURS 6448 and NURS 6248 Corequisites: NURS 6450.

NURS 6450. Family Nurse Practitioner (FNP) Diagnosis And Management 2: Clinical Application. 4 Credit Hours.
The focus of this course is increasing refinement of the Family Nurse Practitioner (FNP) role in health promotion, diagnosis and management in primary healthcare practice in diverse populations. Emphasis is place on care of persons with complex health problems. In addition, the nurse practitioner’s role as collaborative member of the interprofessional team will be evaluated. Prerequisites: NURS 6448 and NURS 6248 Corequisites: NURS 6449.

NURS 6451. Family Nurse Practitioner (FNP) Diagnosis Management of Young Families: Concepts & Theory. 4 Credit Hours.
This course provides the theoretical basis for the competencies of the Family Nurse Practitioner (FNP) in the care of young families. This course lays the scientific foundation for independent practice in health promotion, disease prevention, and the diagnosis and management of acute and chronic illness for patients across the reproductive continuum and the health and illness from birth to adolescents in the primary healthcare setting. Additionally, this course emphasizes collaborative partnership development among patients, families, and interprofessional teams. Prerequisites: NURS 5306, NURS 5307, NURS 5337, NURS 6306, NURS 6317, NURS 6250, NURS 5338, NURS 6302, NURS 6110, NURS 6210, NURS 6101 and NURS 6201.

NURS 6452. Family Nurse Practitioner (FNP) Diagnosis Management of Aging Families: Concepts & Theory. 4 Credit Hours.
This course provides the theoretical basis for the competencies of the Family Nurse Practitioner (FNP) in health promotion, diagnosis and management in the primary healthcare setting for the mature and aging patient and family. Problem-based and self-directed learning strategies are used to review acute and chronic disorders of the aging patient and family. Emphasis is placed on differentiating signs and symptoms to formulate possible diagnoses and determining the effect of illness on this diverse population. Additionally, this course emphasizes the FNP as a collaborative member of the interprofessional team. Prerequisites: NURS 5306, NURS 5307, NURS 5337, NURS 5338, NURS 6317, NURS 6250, NURS 5338, NURS 6302, NURS 6110, NURS 6210, NURS 6101 and NURS 6201.
NURS 6455. Adult-Gerontology Acute Care Nurse Practitioner Diagnosis and Management: Concepts And Theory 1. 4 Credit Hours.
This course introduces the student to the principles of diagnostic and treatment strategies utilized in acute/critical care settings by the Adult-Gerontology Acute Care Nurse Practitioner. The use of evidence based practice is encouraged to develop a strong scientific foundation for independent and collaborative practice as the registered nurse transitions to the role of the Adult-Gerontology Acute Care Nurse Practitioner. The focus is in health promotion, disease prevention, diagnosis and management of common illnesses seen in the acute care settings affecting the young adult, adult and older adult populations. In addition, this course emphasizes collaborative partnership development between patients, their families and inter-professional teams. Successful completion of PH 2610. Prerequisites: NURS 6210, NURS 6302, NURS 6201 and NURS 5338 Corequisites: NURS 6655.

NURS 6456. Adult-Gerontology Acute Care Nurse Practitioner Diagnosis and Management: Concepts And Theory 2. 4 Credit Hours.
This course fosters the progression of the Adult-Gerontology Acute Care Nurse Practitioner student's role transition in the areas of health promotion, disease prevention, diagnosis and management in high acuity practice settings for the young adult, adult and older adult with complex acute, critical and chronic health conditions. Using problem-based and self-directed learning strategies, disorders of the physiologic systems are presented and build on the information presented in Diagnosis and Management: Concepts and Theory 1. Emphasis is placed on using evidence-based practice to formulate individualized plans for care and developing collaborative partnerships with patients, their families and inter-professional teams. Prerequisites: NURS 6455 and NURS 6655 Corequisites: NURS 6656.

NURS 6615. Pediatric Nurse Practitioner (PNP) Primary Care Diagnosis and Management 1: Clinical Application. 6 Credit Hours.
This course focuses on primary care experiences promoting health, preventing disease and diagnosing and managing acute and chronic illness from birth through adolescence and developing collaborative partnerships among patients, families, and inter-professional teams. Prerequisites: NURS 6423 and NURS 6428.

NURS 6616. Pediatric Nurse Practitioner (PNP) Primary Care Diagnosis & Management 2: Clinical Application. 6 Credit Hours.
This course focuses on refining the Pediatric Nurse Practitioner role in primary healthcare practice in diverse populations. Emphasis is placed on care of persons with complex health problems from birth through adolescence. In addition, the nurse practitioner's role as a collaborative member of the interprofessional team will be evaluated. Prerequisites: NURS 6423, NURS 6428 and NURS 6616.

NURS 6620. Family Nurse Practitioner (FNP) Diagnosis & Management of Aging Families: Clinical Application. 6 Credit Hours.
The focus of this course is integration of the Family Nurse Practitioner's core knowledge in health promotion, diagnosis and management in the care of the mature and aging patient and families in the primary healthcare setting. Emphasis is placed on the care of mature and aging patients and families with acute and chronic complex health problems. In addition, the family nurse practitioner as a collaborative member of the interprofessional team will be emphasized. Prerequisites: NURS 6451 and NURS 6452.

NURS 6621. Family Nurse Practitioner (FNP) Diagnosis & Management of Young Families: Clinical Application. 6 Credit Hours.
This course focuses on the primary care experience in health promotion, disease prevention, and diagnosis and management of acute and chronic illness in patients across the reproductive continuum and the health and illness from birth to adolescents. Additionally, this course emphasizes collaborative partnership development among patients, families and interprofessional teams. Prerequisites: NURS 6451 and NURS 6452.

NURS 6623. Psychiatric Mental Health Nurse Practitioner (PMHNP) Diagnosis & Management 1: Clinical Application. 6 Credit Hours.
Primary care experience in health promotion, disease prevention, diagnosis and management of psychiatric illness. Additionally, this course emphasizes collaborative partnership development among patients, families, and interprofessional teams. Prerequisites: NURS 6412 and NURS 6416.

NURS 6624. Psychiatric Mental Health Nurse Practitioner (PMHNP) Diagnosis & Management 2: Clinical Application. 6 Credit Hours.
The focus of this course is refinement of the Psychiatric Mental Health Nurse Practitioner role in health promotion, diagnosis and management in psychiatric practice in diverse populations across the life span. Emphasis is placed on care of persons with complex health problems. In addition, the nurse practitioner's role as a collaborative member of the interprofessional team will be evaluated. Prerequisites: NURS 6412, NURS 6416 and NURS 6623.

NURS 6655. Adult-Gerontology Acute Care Nurse Practitioner Diagnosis and Management 1: Clinical Application. 6 Credit Hours.
This course develops clinical competency and emphasizes the integration of theory, assessment and advanced therapeutics for young adults, adults and older adults in a high acuity setting. Students will perform comprehensive clinical assessments including appropriate diagnostic and therapeutic testing. Management of acute and chronic health problems will be under the direction of clinical preceptors. Clinical placements will include a variety of acute/critical are areas including but limited to: emergency department, medical/surgical intensive care units, intermediate care and specialty services such as transplant and oncology. Gerontology experiences will be provided in long term, rehabilitation facilities and the acute care setting. In addition, this course emphasizes collaborative partnerships development between patients, their families, and interprofessional teams. Prerequisites: NURS 6455.

NURS 6656. Adult-Gerontology Acute Care Nurse Practitioner Diagnosis and Management 2: Clinical Application. 6 Credit Hours.
The focus of this course is to foster continued development of the clinical competency of the Adult Gerontology Acute Care Nurse Practitioner student in health promotion, disease prevention, and the formulation of evidence based treatment strategies in a high acuity setting for the young adult, adult and older adult populations. Content is directed toward the care of persons across the adult continuum with complex health problems. In addition, the refinement of the AG-ACNP’s role as a patient advocate and collaborative member of the inter-professional team will be emphasized. Prerequisites: NURS 6455 and NURS 6655.
NURS 6813. Nursing and Health Systems Management 2: Capstone Practicum. 8 Credit Hours.
This capstone practicum provides an opportunity for the student to implement the role of the Administrative Nurse Manager in a selected institutional or community-based health care setting under the preceptorship of an experienced nurse executive. The emphasis of the course is development of knowledge and skills for strategic planning and operational management, implementation, regulatory management, organizational priority setting, interprofessional relationships, and the development of an evidence-based capstone project. Clock hours: 360 hours class practicum Prerequisites: NURS 6331, NURS 6203, NURS 6313, and NURS 6220, NURS 5318 Corequisites: NURS 6113.

NURS 6814. Psychiatric Mental Health Nurse Practitioner Diagnosis and Management 3: Preceptorship. 8 Credit Hours.
This course focuses on the full implementation of the primary care nurse practitioner role. It requires the student to demonstrate integration, synthesis and application of assessment, diagnosis, and management of patients with acute and/or stable chronic health conditions undifferentiated patients. This course emphasizes collaborative partnerships with patients, family, and interprofessional teams. Clock Hours: 360 clock hours clinical practicum. Prerequisites: NURS 6416 and NURS 6417 Corequisites: NURS 6114.

NURS 6822. Clinical Nurse Leader Role II: Clinical Application For The Advanced Nursing Generalist. 8 Credit Hours.
This capstone clinical experience is designed for students to develop expertise in clinical leadership in their respective interest areas. The health care setting will vary based on a student’s chosen program focus. Planning implementation of selected microsystems changes that will enhance the culture of learning, culture of safety, and improved patient outcomes based on evidence-based practice is the focus of this clinical course. At the successful conclusion of the course a student will be eligible to sit for the CNLTM credentialing examination provided by the American Association of Colleges in Nursing. Clock hours: 360 clinical clock hours Prerequisites: NURS 6230 and NURS 6233 Corequisites: NURS 6120.

NURS 6828. Pediatric Nurse Practitioner (PNP) Primary Care Diagnosis And Management 3: Preceptorship. 8 Credit Hours.
This course focuses on the full implementation of the primary care nurse practitioner role. It requires the student to demonstrate integration, synthesis and application of assessment, diagnosis, and management of the patients with acute and/or chronic health conditions and undifferentiated patients. This course emphasizes collaborative partnerships with patients, family, and interprofessional teams. Prerequisites: NURS 6428 and NURS 6429 Corequisites: NURS 6128.

NURS 6848. Family Nurse Practitioner (FNP) Diagnosis And Management 3: Preceptorship. 8 Credit Hours.
This course focuses on the full implementation of the primary care nurse practitioner role. It requires the student to demonstrate integration, synthesis and application of assessment, diagnosis, and management of patients with acute and/or stable chronic health conditions and undifferentiated patients. This course emphasizes collaborative partnerships with patient, family and interprofessional teams. Prerequisites: NURS 6449 and NURS 6450 Corequisites: NURS 6148.

NURS 7099. Dissertation. 1-9 Credit Hours.
Prerequisites: Admission to candidacy for Doctor of Philosophy degree; registration for two terms is required of PhD candidates.

NURS 7105. Role Of The Clinical Nurse Scientist. 1 Credit Hour.
This course will focus on the professional and ethical roles and responsibilities of the Clinical Nurse Scientist in advancing the discipline of nursing through the generation of clinical knowledge, discovery, and theory development. Potential settings for practice that are traditional, such as academic health centers as well as emerging venues, will be explored. Discussions about issues that may affect the Clinical Nurse Scientist in developing lifelong career/scholarship trajectories will occur.

NURS 7111. Advanced Nursing Seminar. 1 Credit Hour.
This seminar course provides the student with knowledge to facilitate integration and synthesis of the essential specialty competencies necessary to plan and design their DNP Practice Inquiry Project. This seminar may include a variety of activities, identification of the opportunity for improvement, literature synthesis and evidence for their theory based organizational intervention at multiple system levels. The activities will be specific to the student’s identified area of specialty. Students will share issues related to the plan and design of the DNP Practice Inquiry Project in seminar. Prerequisites: Graduate Standing Corequisite: NURS 7511.

NURS 7222. Leadership In Complex Healthcare Systems. 2 Credit Hours.
The focus of this course is on leadership skills preparing nurses for intra/interprofessional leadership in complex healthcare systems including collaborative and consultative models, conflict and board management, and advanced communication and team-building skills with emphasis on innovation and change. Clock hours: 2 clock hours class (30 hours class) Prerequisite: NURS 5339.

NURS 7226. Ethics Of Nursing Science. 2 Credit Hours.
The focus of this course is on the ethical imperative/implications in the role of the clinical nurse scientist. Current ethical theories are critiqued and the ethical implications of the major research paradigms are evaluated. Ethical issues arising from selected theoretical/research approaches are examined.

NURS 7301. Methods For Evidence-Based Practice (EBD) Translational Science 1. 3 Credit Hours.
This course focuses on analyzing evidence-based practice paradigms, quality improvement, and patient safety; appraising primary research and systematic review; and examining approaches to measuring care processes, organizational factors, nursing performance, and patient outcomes. Clock hours: 3 clock hours class (45 hours class) Prerequisites: NURS 5306 and NURS 5307.

NURS 7310. Theory Development, Analysis And Evaluation In Nursing. 3 Credit Hours.
This course provides opportunity to study a system for the development of nursing science through middle-range theory development. Learning activities include engaging in strategies for concept, statement clarification, and theory clarification. Students and faculty dialog about theory application, theory construction, evaluation, and clinical testing of theory. The relationship between research and clinical practice to theory generation and testing is explored. The student and faculty will have the opportunity to gain practice in strategies for middle-range theory building. Prerequisites: NURS 7325 and NURS 7226.

NURS 7311. Nursing Practice: Theories And Research In Leadership, Quality, Safety, And Evidence Base. 3 Credit Hours.
This course focuses on leadership, chaos, system, improved and transitional science theories and patient safety, healthcare quality and evidence-based research and models to frame improvement, implementation, and translational research studies.
NURS 7312. DNP Practice Inquiry Seminar. 3 Credit Hours.
This course requires the student to engage faculty and community leaders in the implementation and reporting of the process and outcomes of their theory and evidence-based organizational intervention at multiple system levels. The student explores specific issues related to the specific practice topic that leads to an evidence-based improvement project. The role of the DNP as leader and innovator in complex organizational systems will be discussed as it relates to the proposal and implementation. Faculty, practice leaders, and experts will assist with development of a plan that is relevant and feasible. Successful completion of PH 1690 as an alternate to NURS 7321. Prerequisites: NURS 7321, NURS 7301, and NURS 7323 Corequisites: NURS 7313.

NURS 7313. DNP Practice Inquiry: Clinical Application. 3 Credit Hours.
This course requires the student to engage faculty and community leaders in the implementation and reporting of the process and outcomes of their theory and evidence-based organizational intervention at multiple system levels. The role of the DNP as leader and innovator in complex organizational systems will be discussed as it relates to implementation and evaluation. Faculty, practice leaders, and experts will assist with the implementation and evaluation of a practice inquiry project. Successful completion of PH 1690 as an alternate to NURS 7321. Prerequisites: NURS 7321, NURS 7301 and NURS 7323 Corequisite: NURS 7312.

NURS 7314. Nursing and Health Systems Administration. 3 Credit Hours.
This course is designed to prepare the professional chief nurse executive to provide strategic direction for all aspects of nursing care and care delivery operations for multiple clinical departments, hospitals, and service lines across the continuum in regional and/or national healthcare systems to provide value. Successful completion of PH 1690 as an alternate to NURS 7321. Prerequisites: NURS 7321, NURS 7301 and NURS 7323 Corequisite: NURS 7414.

NURS 7316. Statistical Analysis For Nursing Science. 3 Credit Hours.
The foundational course focuses on statistics and computing skills that assist students to understand statistical methods, gain computing skills, interpret and perform basic statistical tests, and critique typical quantitative articles. Clock Hours: 3 clock hours class. Prerequisites: Graduate standing.

NURS 7321. Statistical Analysis for Quality Improvement and Health Delivery Systems. 3 Credit Hours.
This course examines the concepts and techniques to develop, improve, and evaluate patient care and health care delivery systems from multiple perspectives including efficiency, effectiveness, and comparability. Students are provided with essential knowledge for evaluation of research to guide evidence-based practice at the highest level. This course provides an overview of the logic and appropriate use of statistical techniques most commonly reported in the research literature of the health professions. Students build on knowledge they have gained from basic statistics courses to develop advanced skills in interpreting and understanding common univariate and multivariate statistical approaches presented in published health care reports. Using a project-oriented approach, students are provided with statistical tools necessary to conduct state-of-the-art practice improvement projects and support leadership decisions. Prerequisite: Graduate Standing.

NURS 7322. Healthcare Policy Analysis and Advocacy. 3 Credit Hours.
This course focuses on analyzing, designing, implementing, and evaluating public policy process; engaging in policy decision-making process; participating in health services research, policy, and economic analysis; and political advocacy.

NURS 7323. Design And Analysis For Evidence-Based Practice (EBP) Translational Science 2. 3 Credit Hours.
This course extends Evidence-Based Practice Translational Science 1 to refine the student’s ability to integrate research and knowledge into practice and evaluate impact on healthcare quality and safety and patient outcomes. Students will have the opportunity to use advanced program evaluation research approaches and analytic methods to design and evaluate innovations in systems of care in terms of care processes and patient outcomes. The course emphasizes appropriate and analytic approaches in translational science and explores ethical issues in translational science. Clock hours: 3 clock hours class (45 hours class) Prerequisites: NURS 7301.

NURS 7324. Healthcare Economics And Policy, 3 Credit Hours.
This course prepares the student to lead improvements in health care and shape health policy through an understanding of macroeconomic principles in the health care market. Students will be given the opportunity to apply theoretical and empirical economic analysis to business and public policy issues in health care.

NURS 7325. Philosophy Of Nursing Science. 3 Credit Hours.
The focus of this course is on articulating the differences in models of knowing and on analyzing the role of science and scientists in society. Emphasis is on the process of analysis, the ability to present the pros and cons of current and anticipated ethical issues, influencing specific clinical situations, and on development and use of technologies in health care. Clock hours: 4 seminar hours per week. Prerequisites: study of advanced professional elements and issues; role(s) socialization.

NURS 7373. Nursing: Quantitative Research Methods 2. 3 Credit Hours.
This course presents modern and classical psychometrics for nursing science from the perspective of item response theory. Most of the course will cover classical test theory from the perspective of modern test theory. An introduction to binary item response theory will also be presented. The course will emphasize applications within the context of modern psychometric principles. Prerequisites: NURS 7325, NURS 7226, NURS 7374, NURS 7310, NURS 7380, NURS 7375 Corequisites: NURS 7381.

NURS 7374. Nursing-Content & Practice: Quantitative Research Methodology 1. 3 Credit Hours.
Integration of the research process and qualitative and quantitative analysis, including concept mapping, operationalization of concepts, and appropriate statistical treatments, make up the content of this course. The course will incorporate identifying clinical research questions and developing study proposals for such questions. Clock Hours: three class hours.

NURS 7375. Regression Models For Nursing Science. 3 Credit Hours.
This course presents regression analysis at an intermediate level. Course will focus on regression for continuous variables: specification, estimation, testing, and diagnostics. Logistic regression for binomial and multinomial variables, log-linear regression for count variables, and proportional hazards regression for duration variables will be explored. An introduction to multilevel regression will occur. Prerequisites: Graduate standing.
NURS 7377. Mixed Methods For Clinical Nurse Scientists. 3 Credit Hours.
This course will cover the use of mixed methods, quantitative and qualitative, to address complex research questions in nursing and health care. Problems of trying to merge methods and practical strategies for accomplishing this successfully, as well as paradigmatic issues, will be discussed. Prior products developed in quantitative and qualitative methods classes to devise a mixed method proposal that integrates readings on mixed methods with the student's own research interests will be used. Prerequisites: NURS 7374 and NURS 7380.

NURS 7380. Qualitative Inquiry For Clinical Nursing Research. 3 Credit Hours.
This course will introduce students to qualitative inquiry as an approach to knowledge discovery applicable to clinical nursing research. Students will analyze, compare, and contrast a variety of qualitative approaches including philosophical underpinnings, methodologies, and applications. Those approaches may include: Phenomenology, ethnography, grounded theory, case study, historical research, naturalistic inquiry, interpretive analysis, action research, and focus-group methods. Criteria for evaluating qualitative research reports to critique qualitative research studies will be utilized. The relationship between a clinical problem and specific research methods will be analyzed. Students will have the opportunity to develop research questions and analyze their applicability to specific clinical issues, and learn varied strategies for collecting and analyzing qualitative research data. Prerequisites: NURS 7325, NURS 7226, and NURS 7310 Corequisites: NURS 7325, NURS 7226, and NURS 7310.

NURS 7381. Nursing: Synthesis And Application Of Clinical Research. 3 Credit Hours.
This course integrates the dynamic elements of clinical practice, theory, and research to prepare doctoral students to function effectively in the synthesis and application of clinical research. This course provides guided direction in the processes used for dissertation development and grant application proposals. Students are required to be actively involved in the critique and analysis of published literature and other students' dissertation proposals, grant applications, and manuscripts. Prerequisites: NURS 7325, NURS 7226, NURS 7310, NURS 7374, NURS 7375, and NURS 7105.

NURS 7382. Structural Equation Models For Nursing Science. 3 Credit Hours.
This course presents structural equation modeling (SEM) for nursing science. The course will begin with a review of regression from an SEM perspective. The first major topic of the course will be path analysis, including model specification, methods of estimation, recursive and non-recursive models, direct, indirect, and total effects, methods of estimation, single and multi-group analyses, moderators and mediators, and the assessment of causality. The second major topic will be psychometrics from an SEM perspective, including congeneric test theory, reliability and stability, convergent and discriminant validity, and confirmatory factor analysis. The third major topic will combine the first two into structural equations, including model specification and identification, methods of estimation, second-order factor analysis, and the assessment of causal structure. Prior completion of Intermediate statistics is required to register for this course.

NURS 7383. Qualitative Methods 2: Application In Nursing Science. 3 Credit Hours.
This course is designed to provide students an opportunity to conceptualize a research problem from a qualitative perspective, to study one specific method (grounded theory, ethnography, phenomenology, hermeneutics), and to practice qualitative approaches to data collection and analysis in that method. Students will have opportunities to write a mini-proposal guided by a qualitative research question and leading to a specific qualitative research approach to the problem. There will be opportunities for participating in Mock reviews of qualitative research proposals (either as investigator or reviewer). Students will have the opportunity to learn the IRB approval process with qualitative proposals and will have opportunities to develop pilot research strategies building to a dissertation proposal. Strategies will include interviewing, focus group, or participant observation following the selected method. Through this process students are required to practice and learn strategies and processes for conceptualizing and implementing a qualitative study guided by a specific qualitative methodology. Prerequisites: NURS 7325, NURS 7226, NURS 7374, and NURS 7380.

NURS 7414. Nursing & Health Systems Administration: Clinical Application. 4 Credit Hours.
This practicum experience in health systems administration is designed to provide the nurse executive student the opportunity to apply systems thinking to analyze, design and provide executive leadership for all aspects of administrative and clinical care to assure quality and value in healthcare delivery. Successful completion of PH 1690 as an alternate to NURS 7321. Prerequisites: NURS 7321, NURS 7301 and NURS 7323 Corequisites: NURS 7314.

NURS 7511. Advanced Nursing: Clinical Application. 5 Credit Hours.
This course provides the student with clinical specialty immersion experiences to facilitate integration and synthesis of the essential competencies necessary for implementation of the DNP Practice Inquiry Project. Students will engage faculty and practice leaders in the plan and design of the project. The practice immersion experience may include a variety of activities related to the identification of the opportunity for improvement, analyzing the organizational context and strategies for design with appropriate clinicians in the clinical practice immersion. The setting and activities will be specific to the student's identified area of specialty. Corequisites: NURS 7111.

Nursing Elective (NURE)

NURE Courses

NURE 3010. Mentored Research Practicum: Health Transitions. 1-2 Credit Hours.
This course is a practicum course taken each semester the student is designated as a Research Scholar. Designation as a Research Scholar is linked to specific undergraduate/graduate student awards. During this practicum course the student actively participates in selected aspects of a research project with a faculty mentor. Receipt of a Research Scholar award, file completed, and a signed contract in student’s Undergraduate/Graduate Nursing Office file is required. Corequisites: NURE 3115.
NURE 3011. Mentored Research Practicum: Chronic Health Transitions. 1-2 Credit Hours.
This course is a practicum course taken each semester the student is designated as a Research Scholar. Designation as a Research Scholar is linked to specific undergraduate/graduate student awards. During this practicum course, the student actively participates in selected aspects of a research project with a faculty mentor. Receipt of a Research Scholar award, file completed, and a signed contract in student’s Undergraduate/Graduate Nursing Office file is required. (1-2 Cr Clinical) Corequisites: NURE 3115.

NURE 3012. Mentored Research Practicum: Health and Illness. 1-2 Credit Hours.
This course is a practicum course taken each semester the student is designated as a Research Scholar. Designation as a Research Scholar is linked to specific undergraduate/graduate student awards. During this practicum course, the student actively participates in selected aspects of a research project with a faculty mentor. Receipt of a Research Scholar award, file completed, and a signed contract in student’s Undergraduate/Graduate Nursing Office file required. (1-2 Cr Clinical) Corequisites: NURE 3115.

This course is a practicum course taken each semester the student is designated as a Research Scholar. Designation as a Research Scholar is linked to specific undergraduate/graduate student awards. During this practicum course, the student actively participates in selected aspects of a research project with a faculty mentor. Receipt of a Research Scholar award, file completed, and a signed contract in student’s Undergraduate/Graduate Nursing Office file required. (1-2 Cr Clinical) Corequisites: NURE 3115.

NURE 3014. Mentored Research Practicum: Community. 1-2 Credit Hours.
This course is a practicum course taken each semester the student is designated as a Research Scholar. Designation as a Research Scholar is linked to specific undergraduate/graduate student awards. During this practicum course, the student actively participates in selected aspects of a research project with a faculty mentor. Receipt of a Research Scholar award, file completed, and a signed contract in student’s Undergraduate/Graduate Nursing Office file required. (1-2 Cr Clinical) Corequisites: NURE 3115.

NURE 3015. Mentored Research Practicum: Policy. 1-2 Credit Hours.
This course is a practicum course taken each semester the student is designated as a Research Scholar. Designation as a Research Scholar is linked to specific undergraduate/graduate student awards. During this practicum course, the student actively participates in selected aspects of a research project with a faculty mentor. (1-2 Cr Clinical) Corequisites: NURE 3115.

NURE 3080. Community Service Learning Elective. 3 Credit Hours.

NURE 3090. Special Topics In Nursing. 1-4 Credit Hours.
Various topics offered. Topics include, but are not limited to: 1) Adolescent Pregnancy: Nursing Implications of Biological, Psychological, and Sociological Perspectives, 2) Healthcare of Women in their Reproductive Years, 3) Application of Theory and Scientific Inquiry.

NURE 3091. Independent Study Nursing. 1-4 Credit Hours.
This elective provides students with the opportunity to expand their knowledge and skills in areas of special interest. Topic and mode of study are agreed upon by student and instructor. The course may be repeated for credit when topics vary. Hours to be arranged and consent of instructor is required.
NURE 5004. Mentored Research Practicum: Statistical Methods. 1-2 Credit Hours.
These courses are a series of practicum courses, one course taken, as appropriate, each semester that the student is designated as a Research Scholar. Designation as a Research Scholar is linked to specific graduate student awards and specific stages of the research process. During this practicum the student is required to actively participate in selected aspects of a research project with a faculty mentor. Submit a completed, signed student/faculty mentor contract for student’s Graduate Nursing Office file. Prerequisites: receipt of a Research Scholar award. Corequisites: NURE 5115.

These courses are a series of practicum courses, one course taken, as appropriate, each semester that the student is designated as a Research Scholar. Designation as a Research Scholar is linked to specific graduate student awards and specific stages of the research process. During this practicum the student is required to actively participate in selected aspects of a research project with a faculty mentor. Submit a completed, signed student/faculty mentor contract for student’s Graduate Nursing Office file. Prerequisites: receipt of a Research Scholar award. Corequisites: NURE 5115.

NURE 5006. Mentored Research Practicum: Research Results/Policy. 1-2 Credit Hours.
These courses are a series of practicum courses, one course taken, as appropriate, each semester that the student is designated as a Research Scholar. Designation as a Research Scholar is linked to specific graduate student awards and specific stages of the research process. During this practicum the student is required to actively participate in selected aspects of a research project with a faculty mentor. Submit a completed, signed student/faculty mentor contract for student’s Graduate Nursing Office file. Prerequisites: receipt of a Research Scholar award. Corequisites: NURE 5115.

NURE 5090. Special Topics in Nursing. 1-4 Credit Hours.
Various topics offered. Topics include, but are not limited to 1) "Adolescent Pregnancy: Nursing Implications of Biological, Psychological, and Sociological Perspectives" - focuses on nursing intervention related to primary, secondary, and tertiary prevention of adolescent pregnancy and parenthood. The course is designed to provide the student with an overview of the nursing implications of interdisciplinary research and non-research literature on this increasing problem of premature childbearing and parenting. The scope of the focus includes the pregnant and parenting adolescent mother and father, the family structure, the community, and the greater society. Clock hours: three class hours per week. 2) "Anthropological Perspectives on Nursing and Health" - taught as a seminar, and will offer a review of concepts and methods of anthropology as they have been applied to problems of nursing and health. A major focus will be how anthropologists have investigated and analyzed health-related behaviors. This information will then be related to nursing science and practice, to see how the anthropological perspective can offer solutions or new approaches. Topics will include cultural variation in illness beliefs and illness behavior, types of healing practices, international health, the culture of health care, and narrative representations of illness and healing.

NURE 5091. Independent Study in Nursing. 1-6 Credit Hours.
This elective allows for detailed or in-depth study in a specific topic area. Topic and mode of study are agreed upon by student and instructor. The course may be repeated for credit when topics vary. Clock hours to be arranged. Graduate standing and consent of instructor are required.

NURE 5115. Applications of Research in Nursing. 1 Credit Hour.
A list is provided each academic semester citing faculty and their research projects with whom graduate students may contract for this elective course.

NURE 5195. Mentored Research Scholars. 1 Credit Hour.
This course is taught each semester for students designated as Student Research Scholars to share learning experiences and gain insights through discussion in a Research Scholar Seminar. Submit a completed, signed student/faculty mentor contract for student’s Graduate Nursing Office file; receive acceptance of the plan for mentored contract. Corequisites: NURE 5115.

NURE 5215. Applications of Research in Nursing. 2 Credit Hours.
A list is provided each academic semester citing faculty and their research projects with whom graduate students may contract for this elective course.

NURE 5248. Art Rounds for Graduate Students. 2 Credit Hours.
Art Rounds is an interactive, interprofessional course that takes students to the McNay Art Museum to learn physical observation skills. Using artwork as patients, students will learn how to observe details and how to interpret images based on available evidence. Taught jointly by UTHSCSA faculty (INTD 4048 and ELEC 5048) and McNay museum educators, students will view, observe, interpret, and give case reports on works of art. Studies demonstrate that these skills translate to improved patient physical observation skills.

NURE 5315. Applications of Research in Nursing. 3 Credit Hours.
A list is provided each academic semester citing faculty and their research projects with whom graduate students may contract for this elective course.

NURE 5327. Scholarly Writing. 3 Credit Hours.
This course is designed to prepare the graduate nursing student to communicate more effectively in writing. Emphasis is placed on the importance of making every word work toward the goal of clear, concise communication. The content will provide students with the knowledge and skills to analyze and critique nursing/health related articles and to write short articles for nursing journals or patient education newsletters.

NURE 6007. Clinical Applications in Advanced Nursing Practice. 1-4 Credit Hours.
This course provides an opportunity for qualified students to work closely with a faculty member and/or preceptor who are actively engaged in direct and indirect clinical practice. Core courses as required for major are required prior to enrolling in this class.

NURE 7090. Dissertation Proposal Process. 1-6 Credit Hours.
This elective course provides an opportunity for doctoral candidates to work closely with their dissertation committee to develop the dissertation proposal and proceed through the Graduate Faculty Council approval process. Successful completion of the written and oral qualifying examinations required prior to enrolling in this course.

NURE 7115. Applications of Research in Nursing. 1 Credit Hour.
The focus of this course is the application of the research process. During this mentored practicum the student actively participates in selected aspects of a research project.

NURE 7215. Applications of Research in Nursing. 2 Credit Hours.
The focus of this course is the application of the research process. During this mentored practicum the student actively participates in selected aspects of a research project.
OBGY 3008. Women’s Reproductive Health and Gynecologic Surgery. Credit Hours.
This elective gives broad experience in gynecologic surgery and primary women’s healthcare. It offers a direct, hands-on opportunity to develop surgical and microsurgical skills. The student is required to be an active member of the gynecology service at the subintern level under the supervision of the Faculty Preceptor and the Chief Resident. Responsibilities will include participation in: 1) inpatient gynecologic, oncologic, and urologic surgeries and medical therapies; 2) outpatient procedures such as diagnostic laparoscopy, tubal sterilization, vaginal sonography, and hysteroscopy; 3) clinic-based care including annual gynecologic and breast examination, cancer screening, contraception, and treatment of sexually transmitted diseases; 4) treatment of acute gynecologic emergencies; and 5) rounds, patient care conferences, and didactic lectures. Additionally, the student will be given 16 hours of instruction in microsurgery using an animal model.

OBGY 3009. Endo-Infertility. Credit Hours.
This elective offers training and experience in Reproductive and Infertility. It is designed as an advanced course for students who have completed the core clerkship in Obstetrics and Gynecology, are interested in reproductive medicine, and anticipate a residency in Obstetrics and Gynecology. The student is required to work with faculty in the Division of Reproductive Endocrinology participating in patient consultations for infertility and is required to observe ongoing management of infertility. In addition, the students are required to learn laboratory techniques. This elective offers training and experience in Reproductive and Infertility. It is designed as an advanced course for students who have completed the core clerkship in Obstetrics and Gynecology, are interested in reproductive medicine, and anticipate a residency in Obstetrics and Gynecology. The student will work with faculty in the Division of Reproductive Endocrinology participating in patient consultations for infertility and will observe ongoing management of infertility. In addition, the students will learn laboratory techniques associated with andrology as well as in vitro fertilization. Hands-on microsurgery laboratory experience will be available. The student will attend the weekly Combined Reproductive Endocrinology and Infertility Conference. They will be present for surgeries on the faculty service as well as on the resident service. The student will participate twice weekly in the infertility clinic at the Downtown University Outpatient Center.

OBGY 3010. Advanced Sonography. Credit Hours.
This elective offers training and experience in Obstetric Sonography. It is designed as an advanced course for students who have completed the core clerkship in Obstetrics and Gynecology and who are interested and anticipate a residency in Obstetrics and Gynecology. The student will work with the faculty in the Division of Obstetrics participating in patient consultations and observe ongoing management of patients. In addition, the student will have hands-on experience in sonography. The student will attend weekly Gyn Rounds and Cesarean Conferences.
OBGY 3011. Clinical Obstetrics and Gynecology-RAHC. Credit Hours.
This is a four-week preceptors in General Obstetrics and Gynecology in Harlingen, Texas. It is under the supervision of the Clinical Professor of Obstetrics and Gynecology at the Regional Academic Health Center (RAHC) site in Harlingen. The staff are all clinical faculty of the RAHC. The clinical experience will be in both obstetrics and gynecology and will involve more responsibility for patient care; it is designed to be a sub-internship. Patients are low and high risk obstetrical patients, general gynecology patients, gyn oncology patients and infertility patients. They will be seen at Valley Baptist Medical Center, Su Clinica Familiar and Women’s Health Specialists. Students considering a career in Obstetrics and Gynecology, Family practice or other primary care or surgical should consider this rotation. It is a high volume “hands-on” rotation, housing is furnished through the Area Health Education Center/ South Texas Border Initiative. The rotation is limited to 2 students per rotation and you must sign up at least 2 weeks in advance so housing arrangements can be made.

OBGY 3012. Gynecology/Oncology. Credit Hours.
This elective gives focused experience in surgical techniques as well as the critical care of gynecologic oncology patients. The goal of this rotation is to provide students with the opportunities to prepare to function as a house officer capable of diagnosing and managing patients with gynecologic malignancies. Students will also have the opportunity to prepare to become competent to identify a patient’s need for direction into an appropriate care environment with a gynecologic/oncologist. The student is required to be a team member of gynecologic oncology service. It is a 7-term level under the supervision of gynecology/oncology faculty preceptors and the chief resident of that service. Responsibilities include inpatient gynecologic/oncology surgeries, inpatient gynecologic/oncologic critical care, outpatient gynecologic/oncology clinic care, gynecology-radiation/oncology conference(s), and gynecologic/oncology rounds.

OBGY 4000. Special Topic. 4 Credit Hours.
This course will need to be arranged with a designated faculty member(s) of the students choosing, meeting certain criteria prior to enrolling and getting permission to register. Research topics include but are not limited to PCOS, Teen Pregnancy, STD’s, Pre-Eclampsia, Pre-Term Labor, Post Partum Depression, or any other OB/GYN related topic. The student must choose a preceptor, decide on the topic, schedule, and what will be graded. Students will follow the schedule created by that preceptor for 4 weeks.

OBGY 4001. Obstetrical Externship. 4 Credit Hours.
This selective offers training and experience in the care of complicated and normal pregnancies and exposure to advanced obstetric techniques. It is designed primarily as a preparatory subinternship for students anticipating residency in Obstetrics and Gynecology. The student will have the opportunity to be an integral member of the obstetric service and function at the junior intern level under the supervision of the Obstetric Faculty and Chief Resident. Opportunity for direct participation in labor and delivery, outpatient clinics (high risk and routine), operative obstetrics, and obstetric sonography is provided. The student is required to attend patient-care conferences and didactic teaching rounds directed by the Obstetric Faculty, and will be required to give one seminar presentation. Additional prerequisite for non-HSC students is rank in the upper half of one’s medical school class.

OBGY 4007. Obstetric/Gynecology Research. 4 Credit Hours.
This selective is designed to provide the opportunity to participate in either clinical or basic research currently conducted by the faculty in the Department of Obstetrics and Gynecology. Depending on the student’s interest, an appropriate faculty member will be assigned as preceptor and will integrate the student into her or his ongoing research. The student is expected to be actively involved in the research and to prepare a formal oral or written presentation relative to their area of investigation.

OBGY 4008. Reproductive Health & Gynecological Surgery. 4 Credit Hours.
This selective gives broad experience in gynecologic surgery and primary women’s healthcare. It offers a direct, hands-on opportunity to develop surgical and microsurgical skills. The student is required to be an active member of the gynecology service at the subintern level under the supervision of the Faculty Preceptor and the Chief Resident. Responsibilities will include participation in: 1) inpatient gynecologic, oncologic, and urologic surgeries and medical therapies; 2) outpatient procedures such as diagnostic laparoscopy, tubal sterilization, vaginal sonography, and hysteroscopy; 3) clinic-based care including annual gynecologic and breast examination, cancer screening, contraception, and treatment of sexually transmitted diseases; 4) treatment of acute gynecologic emergencies; and 5) rounds, patient care conferences, and didactic lectures. Additionally, the student will be given 16 hours of instruction in microsurgery using an animal model.

OBGY 4009. Endo-Infertility Elective. 4 Credit Hours.
This elective offers training and experience in Reproductive and Infertility. It is designed as an advanced course for students who have completed the core clerkship in Obstetrics and Gynecology, are interested in reproductive medicine, and anticipate a residency in Obstetrics and Gynecology. The student is required to work with faculty in the Division of Reproductive Endocrinology participating in patient consultations for infertility and is required to observe ongoing management of infertility. In addition, the students are required to learn laboratory techniques associated with andrology as well as in vitro fertilization. Hands-on microsurgery laboratory experience will be available. The student is required to attend the weekly Combined Reproductive Endocrinology and Infertility Conference, be present for surgeries on the faculty service as well as on the resident service, and participate twice weekly in the infertility clinic at the Downtown University Outpatient Center.

OBGY 4010. Advanced Sonography. 4 Credit Hours.
This elective offers training and experience in Obstetric Sonography. It is designed as an advanced course for students who have completed the core clerkship in Obstetrics and Gynecology and who are interested and anticipate a residency in Obstetrics and Gynecology. The student is required to work with the faculty in the Division of Obstetrics participating in patient consultations and observe ongoing management of patients. In addition, the student will have the opportunity to obtain hands-on experience in sonography. The student is required to attend weekly Gyn Rounds and Cesarean Section Conferences.
OGBY 4011. Clin Obstetrics & Gynecology. 4 Credit Hours.
This is a four-week preceptorship in General Obstetrics and Gynecology in Harlingen, Texas. Staff are all clinical faculty of the RAHC. The clinical experience will be in both obstetrics and gynecology and involve more responsibility for patient care than is provided for third-year students; it is designed to be a subinternship. Patients are low- and high-risk obstetrical patients, general gynecology patients, GYN oncology patients, and infertility patients. Students considering a career in Obstetrics and Gynecology, Family Practice or other primary care or surgical should consider this rotation. It is a high volume, “hands-on” rotation and students have the opportunity to fulfill the required selective for ambulatory care. Housing is furnished through the Area Health Education Center/South Texas Border Initiative.

OGBY 4012. Gynecology/Oncology. 4 Credit Hours.
This elective gives focused experience in surgical techniques as well as the critical care of gynecologic oncology patients. The goal of this rotation is to provide students with the opportunities to prepare to function as a house officer capable of diagnosing and managing patients with gynecologic malignancies. Students will also have the opportunity to prepare to become competent to identify a patient’s need for direction into an appropriate care environment with a gynecologic/oncologist. The student is required to be a team member of gynecologic oncology service. It is a 7-term level under the supervision of gynecology/oncology faculty preceptors and the chief resident of that service. Responsibilities include inpatient gynecologic/oncology surgeries, inpatient gynecologic/oncologic critical care, outpatient gynecologic/oncology clinic care, gynecology-radiation/oncology conference(s), and gynecologic/oncology rounds.

OGBY 4013. Ob/Gyn Bootcamp. 4 Credit Hours.
The purpose of this elective is to prepare senior medical students who are interested in a career in obstetrics and gynecology for their internship. This elective is a “bootcamp” that provides practical “hands on” surgical training and valuable experiences so students are ready to perform day 1 of their residency. Prerequisites: Students are required to have passed their required MS3 obstetrics/gynecology clerkship.

OGBY 7000. Off Campus. 4 Credit Hours.
All off campus rotations must be approved by the designated faculty member prior to the beginning of the rotation (at least one week before the course begins). Credit will not be given for any rotation that has not been approved in advance. Required paperwork includes: “Course Approval” form, a written letter or email for acceptance form the physician preceptor with the start and end dates of the course/rotation, and a course description of your learning objectives and responsibilities during the rotation. Forms must include a complete address and telephone number for the off campus location or residence address for the student while at the off campus site. Forms will not be approved after the rotation has already begun. Contact the department for assistance with enrolling in this course.

## Occupational Therapy (OCCT)

### Courses

OCCT 5001. Theoretical Foundations of Occupational Therapy. 2 Credit Hours.
This course is an overview of the critical issues of occupational therapy. This course includes the history, frames of references, current trends, and legislative concerns that impact practice.

OCCT 5005. The Role of Occupational Therapy in Low Vision Rehabilitation. 2 Credit Hours.
An introductory Web-based course in the field of low vision rehabilitation designed to help occupational therapy practitioners develop a comprehensive understanding of how low vision can impact an individual’s occupational performance and the therapy process. Evaluation and treatment interventions utilizing a multidisciplinary approach are presented. A one-day practicum (8 hours) at the Lions Low Vision Center of Texas is required.

OCCT 5007. Occupational Justice and Participation. 1 Credit Hour.
This course traces the development of an occupational justice approach to health and well being from an international perspective. The student will have the opportunity to explore ways to enable participation in occupation, within a sociopolitical context.

OCCT 5010. Human Occupation across the Lifespan. 3 Credit Hours.
This course is a study of the character and purpose of human activity throughout the life span. Areas of occupation, performance skills, performance patterns, client factors, and contexts are examined for each stage of life.

OCCT 5011. Research 2: Introduction to Research &and Design. 3 Credit Hours.
The purpose of this lecture course is to introduce the student to the purpose of research and designs appropriate for answering research questions in practice settings. Topics include quantitative and qualitative designs.

OCCT 5012. Application of Neural Systems to Occupation. 4 Credit Hours.
This course is a study of the structure and function of the human nervous system, with particular emphasis on the application of theoretical concepts to treatment techniques practiced in occupational therapy. Clinical cases are an integral part of the course, and are discussed using the neuroscience principles being studied.

OCCT 5013. Applied Biomechanics of Movement. 3 Credit Hours.
This course is a study of kinesiology and biomechanical principles related to human motion with application to occupational therapy assessment techniques of the musculoskeletal system. This course will provide the student with the opportunity to learn a basic knowledge of kinesiology and biomechanics of human movement in preparation for the study of the biomechanical approach to evaluation and treatment of physical dysfunction as occupational therapists.

OCCT 5014. Professional Communication in Occupational Therapy. 3 Credit Hours.
This course is the study of effective communication skills for occupational therapists in health care relationships. The course will focus on an understanding of self-communication behaviors and development of skills to interact non-verbally and verbally with patients, health teams, supervisors, families, and groups. Lecture, videotapes, and experiential activities will be used.

OCCT 5020. Occupational Therapy Process: Neonate-Preschool. 4 Credit Hours.
This course is a study of occupational therapy practice with neonates up to preschool age children and their families. Early interventions, to promote the engagement of young children and their families in occupation to support participation in a variety of contexts, are examined. Emphasis is placed on family-centered theories and practice.
OCCT 5021. Service Delivery Systems 1. 2 Credit Hours.
This course explores service delivery systems that exist for infants and young children with medical conditions and developmental disabilities. Topics include the organizational culture, administrative structure, missions, documentation procedures, and team interactions associated with occupational therapy in pediatric hospitals and early intervention programs.

OCCT 5022. Environmental Technologies 1. 2 Credit Hours.
This course provides the philosophical and therapeutic basis for occupational therapy utilization of adaptive, technological, and therapeutic equipment and materials. Activity analysis and problem-solving principles are developed. Included will be environmental adaptations and adaptive equipment for personal care, leisure, and home management.

OCCT 5023. Research 1: Assessment and Research Statistics. 3 Credit Hours.
This course focuses on principles of assessment and the psychometric properties of tests. The concepts of accurate evaluation, evaluation methods, purposes of evaluation, levels of measurement, standardization, validity, reliability, and test administration are examined. Students will have the opportunity to develop skill in selecting and using the most appropriate standardized assessment for a given purpose.

OCCT 5024. Clinical Medicine 1. 1 Credit Hour.
This course is an overview of the manifestations of developmental disabilities in pediatric patients and their medical and surgical management.

OCCT 5025. Pathology for Occupational Therapy. 3 Credit Hours.
This course introduces the principles of human disease including a discussion of the pathogenesis, morphology, clinical course and treatment of those diseases most pertinent to the graduate occupational therapy student. The first portion of the course is devoted to the principles of general pathology while the second portion of the course is a review of systemic pathology.

OCCT 5071. Level 1 Fieldwork: Neonatal-Preschool. 1 Credit Hour.
This course is an opportunity for the student to observe and begin participation in the assessment and treatment of infants and preschool children and their families. Students will be exposed to clinical and community facilities that serve this population.

OCCT 5073. Community Project. 6 Credit Hours.
In conjunction with the community agency selected in OCCT 5072 Level 1 Fieldwork: Community Agencies, the student will be required to develop a proposal for the provision of occupational therapy services in that setting. This proposal may include a needs assessment, description of service(s), role of OT and others, funding sources, and program evaluation plan.

OCCT 5091. Special Topics. 1-6 Credit Hours.
This course will be arranged through departmental faculty. The course topics vary according to student interests. Semester hours are variable and credit hours will be assessed per topic. Could be offered in fall or spring summer sessions.

OCCT 6020. Occupational Therapy Process: School Age. 4 Credit Hours.
This course is a study of occupational therapy practice with school-aged children. Occupational therapy assessment and intervention are examined in relationship to the child's engagement in occupation to support participation in the home, school, and community contexts. Performance skills and patterns, activity demands and client factors are discussed, with the following highlighted: sensory integration, motor skills, behavior management, comprehension and handwriting, activities of daily living, school tasks, and transitional skills.

OCCT 6021. Service Delivery Systems 2. 2 Credit Hours.
This course examines service delivery systems for school-aged children and adolescents with developmental disabilities. Topics include the organizational culture, administrative structure, missions, documentation procedures, and team interactions associated with occupational therapy in public schools; transitional living programs; and prevocational and supported employment settings.

OCCT 6022. Environmental Technologies 2. 3 Credit Hours.
This course explores the assistive technologies available for use by individuals with disabilities so they may pursue educational, vocational, and recreational occupations. Included are computer input/output technologies, augmentative and alternative communication systems, aids for persons with sensory impairments, and electronic aids to daily living.

OCCT 6024. Clinical Medicine 2. 1 Credit Hour.
Clinical manifestations of adult biomechanical disorders will be presented. The medical and surgical management for these conditions will be described.

OCCT 6026. Psychosocial Components of OT. 4 Credit Hours.
The goals of this course are to provide an understanding of psychiatric disease classification and the diagnosis and medical management of psychosocial conditions. Students will have the opportunity to compare and contrast the contemporary bodies of knowledge in common use throughout the mental health arena and learn the specific occupational therapy evaluation and intervention procedures as they relate to each theoretical frame of reference.

OCCT 6027. Health Care Management. 3 Credit Hours.
This course is intended to provide the graduate student with an opportunity to assume supervisory, administrative, or management functions related to the delivery of occupational therapy services in the contemporary health care systems. The course is a study of the political, economic, legal and ethical factors that impact occupational therapy practices. Special emphasis will be given to the occupational therapy management functions of planning, organizing, directing, coordinating, controlling, and communicating.

OCCT 6030. OT Process: Adult Biomechanical Dysfunction. 4 Credit Hours.
This course is a study of the theories and approaches of occupational therapy assessment and intervention for adults with musculoskeletal disorders. Areas of occupation, performance skills, performance patterns, client factors, and contexts are examined.

OCCT 6031. Service Delivery Systems 3. 3 Credit Hours.
This course examines service delivery systems that exist for adults and the elderly with physical dysfunctions. Topics include the organizational culture, administrative structure, missions, documentation procedures, and team interactions associated with occupational therapy in rehabilitation hospitals, outpatient clinics, vocational settings, nursing homes, home health settings, assisted living settings, and hospice programs. This is the third in a series of courses addressing occupational therapy systems across the lifespan.

OCCT 6034. Professional Issues. 1 Credit Hour.
This interdisciplinary course is an overview of professional and ethical issues facing allied health professionals. Topics to be discussed include responsibilities of the health care practitioner, life and death decisions, patient confidentiality, substance abuse, whistle blowing, and informed consent. Ethics in research and other critical issues related to health care problems will also be addressed. Collaborative activities and simulated cases will be used to enhance discussion among students.
OCCT 6035. Concepts and Practices in Teaching. 2 Credit Hours.
The purpose of this course is to explore adult learner teaching methodologies and techniques that are applicable to classroom, clinical, or community settings. Students will define objectives, and plan and prepare instructional materials and practice skills.

OCCT 6037. OT Process: Adult Neuromuscular Dysfunction. 4 Credit Hours.
This course is a study of the theories and approaches of occupational therapy assessment and intervention for adults with sensorimotor and neuromuscular dysfunction. Areas of occupation, performance skills, performance patterns, client factors, and contexts are examined.

OCCT 6045. Clinical Medicine 3. 1 Credit Hour.
Clinical manifestations of adult neuromuscular disorders will be presented. The medical and surgical management for these conditions will be described.

OCCT 6069. Level 2 Fieldwork: Seminar. 1 Credit Hour.
This course will focus on the transition from classroom to Level 2 Fieldwork experiences. Students will have the opportunity to identify Level 2 fieldwork expectations, explore professional behaviors and ethics, review AOTA, NBCOT, and the State of Texas licensure requirements, and begin preparation for job searches.

OCCT 6070. Level 1 Fieldwork: School Age. 1 Credit Hour.
Students will have the opportunity to observe the occupational therapy process in public school, community, and supported employment settings with children and adolescents with developmental disabilities. This course is the third in a series of fieldwork courses that allow students to experience community and public school programs and observe occupational therapy for children with disabilities ages 4-21 years. It is taught in the second year of the program. Corequisites: OCCT 6021 and OCCT 6020.

OCCT 6073. Level 2 Fieldwork: Developmental Dysfunction. 10 Credit Hours.
This course is a three-month fieldwork placement in an occupational therapy setting where the student will have the opportunity to gain competence in providing occupational therapy services to individuals with developmental disabilities.

OCCT 6074. Level 2 Fieldwork: Adult Disabilities. 10 Credit Hours.
This course is a three-month fieldwork placement in an occupational therapy setting where the student will have the opportunity to gain competence in providing occupational therapy services to adults with disabilities.

OCCT 6075. Level 1 Fieldwork: Elective. 1 Credit Hour.
Students are required to observe, participate in, and critique the occupational therapy process in a setting of their choice in collaboration with the Academic Fieldwork Coordinator.

OCCT 6076. Level 1 Fieldwork: Adult Neuromuscular Dysfunction. 1 Credit Hour.
Students are required to observe, participate in, and critique the occupational therapy process with adults and older adults with neuromuscular dysfunctions within community and rehabilitation settings.

OCCT 6077. Level I Fieldwork: Adult Biomechanical Dysfunction. 1 Credit Hour.
Students are required to observe, participate in, and critique the occupational therapy process with adults and older adults with biomechanical dysfunctions within community and rehabilitation settings.

Ophthalmology (OPHT)

Courses

OPHT 3001. Clinical Ophthalmology. Credit Hours.
The goal of the elective experience is to help the student learn how to perform an ophthalmological examination using external examination techniques, Schiotz, and applanation tonometry, the direct and indirect ophthalmoscope, gonioscopy, and refraction, and to become familiar with the common systemic disorders that have ocular manifestations. The student is required to learn to recognize and understand the treatment of the most frequently encountered ocular diseases.

OPHT 4000. Special Topic. 4 Credit Hours.
This is a self-designed course created by both the student and the department to cover a specific topic. A Course Approval Form must be completed along with documentation of the designed course description.

OPHT 4001. Clinical Ophthalmology. 4 Credit Hours.
The goal of the senior selective experience is to help the student learn how to perform an ophthalmological examination using external examination techniques, Schiotz, and applanation tonometry, the direct and indirect ophthalmoscope, gonioscopy, and refraction, and to become familiar with the common systemic disorders that have ocular manifestations. The student is required to learn to recognize and understand the treatment of the most frequently encountered ocular diseases.

OPHT 4003. Clinical Ophthalmology Research. 4 Credit Hours.
The student is required to design and carry out a clinical project, review of literature, chart review, etc., with approval and guidance by instructor. The student also is required to participate with faculty instructors in seeing private patients, observing surgery, scheduled teaching conferences and Journal Club.

OPHT 4006. Ophthalmic Research. 4 Credit Hours.
The student is required to actively participate in research activities within the Department of Ophthalmology. The student is expected to carry out a research project, which may be clinical or involve laboratory research. A logical and step-wise approach to research will be emphasized, from literature review and collection of data to analysis and reporting of the results. Some time may also be available for exposure to clinic patients and performance of ophthalmological examinations.

OPHT 4024. MS 4 Tutoring Elective. 2 Credit Hours.
The Tutoring Elective consists of activities that will provide the student the opportunity to participate in the Office of Academic Enhancement Tutoring Program as tutors. Each tutor will receive training, tutor over an entire academic year, participate in weekly online activities, and receive a formal observation with a follow-up conference.

OPHT 4201. Clinical Ophthalmology - RAHC. 4 Credit Hours.
The goal of the senior selective experience is to help the student learn how to perform an ophthalmological examination using external examination techniques, Schiotz, and applanation tonometry, the direct and indirect ophthalmoscope, gonioscopy, and refraction and to become familiar with the common systemic disorders which have ocular manifestations. The student will learn to recognize and understand the treatment of the most frequently encountered ocular diseases. The student will observe ophthalmologists and fellows perform specialized examinations and treatment, including surgery. The course is ambulatory based and is available all year. Students will receive a clinical performance evaluation by the supervising attending physician.
Orthodontics (ORTH)

Courses

ORTH 5010. Introduction to Orthodontics. 0.5 Credit Hours.
The expected to gain understanding of basic clinic operations, laboratory procedures and collection of orthodontic database including study models, photographs, and orthodontic clinical exams.

ORTH 5011. Orthodontic Techniques. 1 Credit Hour.
This course is designed to present to the students all modern orthodontic techniques, approached and appliance. The prerequisite for the course is solid biomechanics and understanding of importance of setting specific treatment goals for each patient. Discussions are led by the instructor on the cases treatment by the residents where the theoretical knowledge is applied.

ORTH 5012. Orthodontic Lab Technique. 0.5 Credit Hours.
The students are exposed to didactic teaching and practical hands on instruction about the design and fabrication of various orthodontic appliances including removable appliances, retainers and special custom designed appliances for complex orthodontic patients.

ORTH 5013. Orthodontic Treatment Planning. 0.5 Credit Hours.
The principles of the initial and advanced treatment planning are presented in this case based course. The student will learn how to effectively use databases including cephalometrics and 3-D imaging into making treatment decisions and presenting the treatment options to the patient.

ORTH 5014. Literature Seminars. 0.5 Credit Hours.
The students are taught to critically analyze and present current orthodontic literature, make effective presentations and learn how to categorize a research study within the hierarchy of research publications.

ORTH 5015. Orthodontic Biomechanics. 1 Credit Hour.
This course is designed to equip the student with knowledge of basic biomechanics and utilization of fundamental physical principles in orthodontics. It includes application of biomechanical principles in the design of the appliance and predictable tooth movement to achieve orthodontic movement goals.

ORTH 5020. Clinical Orthodontics 1. 1 Credit Hour.
During this clinical course, the student will be exposed to and learn all modern orthodontic techniques, approaches and appliances through treatment of about 65 orthodontic patients started by the student. In addition, about 20 transfer cases will be assigned to each student at the beginning of each year. The course will result in clinical competency of the student and preparation of at least six board quality cases for certification straight out of the residency program.

ORTH 5028. ABO Literature Review. 2 Credit Hours.
This series of seminars focuses on the literature required by the American Board of Orthodontics for the written board examination which the residents take during the spring semester of the second year. The seminars include in-depth coverage of the presented articles and topics and board-provided materials for preparing for the board written exam.

ORTH 5030. Case Analysis Seminars 1. 1 Credit Hour.
In this series of seminars, one resident is selected for each class to present a case of their choice with an in-depth analysis of the development of treatment planning, design of the appliance, and progress and outcome of the treatment. Other students in the audience are encouraged to ask questions and develop a discussion about the case and treatment approaches used.

Oral Surgery (OSUR)

Courses

OSUR 6051. Oral Surgery 1. 1.5 Credit Hour.
Didactic presentation of basic principles of oral & maxillofacial surgery is included in this course. Detailed instruction in biopsy technique, suturing, tooth removal, preparation of the mouth for dentures, and minor oral surgery is included. Lab fee included in general laboratory fee.

OSUR 6056. Local Anesthesia. 1.5 Credit Hour.
This is a didactic course dealing with aspects of local anesthesia as they relate to dental practice. Neuroanatomy, physiology, and pharmacology of local anesthesia are presented, as well as the prevention and management of complications and emergencies encountered in clinical local anesthesia.

OSUR 6140. Nitrous Oxide. 0.5 Credit Hours.
This is a didactic and laboratory course presenting the fundamentals of patient anxiety control through the use of nitrous oxide conscious sedation for both the adult and child patient.

OSUR 7051. Oral & Maxillofacial Surgery. 4 Credit Hours.
The junior Oral and Maxillofacial Surgery experience will be a concentrated exposure to the specialty. OSUR 7051 consists of clinical experiences and a self-study, Blackboard-based course. Biweekly seminars will supplement the self-study course. Junior students will be assigned to the Oral and Maxillofacial Surgery service for four weeks. During this time they will treat patients in the outpatient OMS clinic, the University Hospital Clinic Downtown, and they will work in the OMS Suite. Outpatient dentoalveolar surgery will be the focus. Students will have an opportunity to administer nitrous oxide sedation and observe cases where intravenous sedation is used. Opportunities may also be available for a limited number of students to observe and participate in the OR, ER, and on rounds at the University Hospital.

OSUR 8055. Advanced Oral & Maxillofacial Surgery. 0.5 Credit Hours.
This course provides essential advanced information about Oral and Maxillofacial Surgery as it relates to the practice of General Dentistry and covered on the National Board exam. The course encompasses material on advanced dentoalveolar surgery, trauma management, reconstructive surgeries, management of sinus and salivary gland disease, cosmetic surgery and other entities managed by the Oral and Maxillofacial surgeon.

OPHT 7000. Off Campus. 4 Credit Hours.
All off campus rotations must be approved by the designated faculty member prior to the beginning of the rotation (at least one week before the course begins). Credit will not be given for any rotation that has not been approved in advance. Required paperwork includes: “Course Approval” form, a written letter or email for acceptance form the physician preceptor with the start and end dates of the course/rotation, and a course description of your learning objectives and responsibilities during the rotation. Forms must include a complete address and telephone number for the off campus location or residence address for the student while at the off campus site. Forms will not be approved after the rotation has already begun. Contact the department for assistance with enrolling in this course.
ORTH 5035. Current Literature Review 1. 1 Credit Hour.
During this series of seminars attended by multiple of orthodontic faculty, the residents are presenting selected papers on current orthodontic topics. The seminars include in-depth discussion of the methodology, design of the study, interpretation of the results and conclusions based on the presented results. This course is designed to familiarize the student with all areas of current orthodontic literature and is a supplement to all didactic courses.

ORTH 5037. Orthodontic Lecture Series 1. 1 Credit Hour.
This series of orthodontic didactic lectures is a multifaceted course taught by several faculty during the course of the program. The topics covered in the course include periodontal consideration in orthodontics, orthodontic radiology, oral pathology, anatomy and histology and principles of growth and development.

ORTH 5090. Research 1. 0.5 Credit Hours.
Following the course on Research Methodology, the student meets with the faculty and attends presentations on research topics from which he/she can select the topic of interest for the research project. Several components of that course throughout the duration of the program include understanding of research topics of interest to clinical orthodontics, design of clinical study and practical laboratory research on the selected project under the guide of student’s research mentor.

ORTH 6075. Sophomore Orthodontic Lectures. 1.5 Credit Hour.
This introductory course emphasizes the etiology and diagnosis of orthodontic problems, orthodontic force systems, biomechanical principles of appliance design, and the biology of tooth movement.

ORTH 6077. Growth & Development. 1.5 Credit Hour.
This course is designed to present a comprehensive approach to the morphologic, biochemical, and physiologic aspects of human growth and development. A review of the control and influence of genetic, hormonal, and environmental factors on the various tissues and organ systems, from the embryonic period to maturity, with particular emphasis devoted to the functional development of the oral and perioral structures. Etiology of certain orofacial abnormalities of developmental nature are covered. This is a joint presentation by faculty of Pediatric Dentistry and Orthodontics departments.

ORTH 7073. Junior Orthodontic Lectures And Case Analysis. 1 Credit Hour.
This advanced lecture/case presentation series emphasizes the principles of orthodontic diagnosis and treatment planning for limited orthodontic procedures and the principles of comprehensive orthodontic therapy, interdisciplinary dentistry, and orthognathic surgery.

Orthopedics (ORTO)

Courses

ORTO 3005. Trauma, Fracture and Clinical Care. Credit Hours.
Participate as a member of an orthopaedic elective service team (including VA) for two weeks and two weeks as a member of the orthopaedic trauma service. On the elective service, the student will be assigned to a specific resident and faculty member to work in the outpatient clinics, on wards, and in surgery. Experience will emphasize both operative and nonoperative treatment. On the trauma service, the student will be assigned to a specific resident to work in the emergency room, trauma clinics, and operating room. Broad experience in assessment and care of extremity trauma will include fracture reduction and application of plaster casts. The student is required to also attend core lectures in basic orthopaedics by faculty. Reading material includes excerpts from Essentials of Musculoskeletal Care, as well as reading material required by a particular service. No late drops.

ORTO 4000. Special Topic. 4 Credit Hours.
This is a self-designed course created by both the student and the department to cover a specific topic. A Course Approval Form must be completed along with documentation of the designed course description.

ORTO 4003. Selective In Hand Surgery. 4 Credit Hours.
The student participates as a team member on the Orthopaedic Hand Surgery Service of University Hospital. The student participates in the care of acute, traumatic, and elective reconstructive problems of the hand. Principles of examination of the hand and upper extremity, as well as patient management, are taught through clinical experience and gross dissection of the upper extremity. The student is required to attend core lectures on basic orthopaedics by orthopaedic faculty. No late drops.
Prerequisite: ORTO 4005.

ORTO 4005. Trauma, Fracture & Clinical Care. 4 Credit Hours.
Participate as a member of an orthopaedic elective service team (including VA) for two weeks and two weeks as a member of the orthopaedic trauma service. On the elective service, the student will be assigned to a specific resident and faculty member to work in the outpatient clinics, on wards, and in surgery. Experience will emphasize both operative and nonoperative treatment. On the trauma service, the student will be assigned to a specific resident to work in the emergency room, trauma clinics, and operating room. Broad experience in assessment and care of extremity trauma will include fracture reduction and application of plaster casts. The student is required to also attend core lectures in basic orthopaedics by faculty. Reading material includes excerpts from Essentials of Musculoskeletal Care, as well as reading material required by a particular service. No late drops.

ORTO 4006. Adult Reconstruction In Orthopaedics. 4 Credit Hours.
Assigned to the Total Joint Service. Clinic exposure includes two half days of adult reconstruction clinic: one at UT Medicine and the second at University Clinic Downtown. Students are required to learn to conduct a thorough orthopaedic examination including preoperative and post-operative evaluations. Operative experience includes two or three days per week at University Hospital, Audie L. Murphy V. A. Hospital, and Santa Rosa Northwest. Students will scrub with and assist Dr. Marshall and/or Dr. Trick in the operating room. Procedures primarily include total hip and total knee replacement and revision as well as hip and knee arthroscopy. Learning objectives will focus on basic biomechanics, anatomy, and perioperative care. Will attend core lectures on basic orthopaedics by orthopaedic faculty. Reading material includes excerpts from Essentials of Musculoskeletal Care. No late drops.
ORTO 4008. Pediatric Orthopaedics SRCH/UH. 4 Credit Hours.
Students are assigned to work with one of the pediatric orthopaedic faculty for broad exposure in the essentials in pediatric orthopaedics. Students are required to attend outpatient clinics at Christus Santa Rosa Children’s Hospital, University Clinic Downtown, and University Clinic. Students are required to perform preparative workups, attend surgery, and attend conferences at Christus Santa Rose Children’s Hospital. Both assessment and treatment of pediatric trauma, congenital conditions such as clubfoot and dislocated hip, spinal disease, and neurologic conditions such as cerebral palsy will be emphasized. Students are required to attend core lectures on basic orthopaedics by orthopaedic faculty. Reading material includes excerpts from Essentials of Musculoskeletal Care, as well as reading material required by a particular service. No late drops.

ORTO 4009. Orthopaedics Research. 4 Credit Hours.
The student will be assigned to the supervision of one member of the orthopaedic faculty to carry out either a basic or clinical research project. The content and scope of the project will be determined by the student and faculty member prior to the start of the rotation. Either basic or clinical studies may be undertaken. Students are required to attend core lectures in basic orthopaedics by faculty. Reading material includes excerpts from Essentials of Musculoskeletal Care, as well as reading material required by a particular service. No late drops.

ORTO 4011. Sports Medicine Selective. 4 Credit Hours.
Students are assigned to the Sports Medicine Service. Students are required to participate in the knee rehabilitation clinic, weekly training-room visits, and attend surgeries. Introduction to the diagnosis and treatment of joint instability as well as care of the athlete will be made. Students are required to attend core lectures in basic orthopaedics by faculty. A brief review paper on a sports subject related to the student’s chosen field of study, researched and submitted in rough draft, is required. Reading material includes excerpts from Essentials of Musculoskeletal Care. No late drops.

ORTO 4012. Orthopaedic Oncology. 4 Credit Hours.
Students are required to participate as a member of Orthopaedic Oncology Service. Students are required to participate in initial evaluations, staging, biopsy and definitive treatment of patients with primary musculoskeletal tumors and cancer metastatic to bone. Regional anatomy, pathology, and initial patient evaluation are emphasized. Each student is required to prepare a case presentation and discussion. Clinical experience and surgical exposure will be included. Students are required to attend core lectures in basic orthopaedics by faculty. Reading material includes excerpts from Essentials of Musculoskeletal Care, as well as reading material required by this service. No late drops.

ORTO 4014. Primary Care Orthopaedics. 4 Credit Hours.
A thorough outpatient orthopaedic primary care experience working under direct faculty supervision in Outpatient Clinics, this rotation is ideal for the student who wishes to pursue a career in Primary Care Medicine. The focus will be on common outpatient orthopaedic disease of the upper extremity, spine, and lower extremity. In addition, students will be given the opportunity to learn to assess and treat sports injuries, orthopaedic disorders of children, and in the treatment of musculoskeletal tumors. No attendance in the operating room is required. Students are required to attend core lectures in basic orthopaedics by faculty. Reading material includes excerpts from Essentials of Musculoskeletal Care. No late drops.

ORTO 5091. Independent Study. 0.5-3 Credit Hours.
This course will be arranged through BME faculty. Topic and mode of study are agreed upon by student and instructor. Semester hours are variable and credit hours will be determined by topic. The course is offered all terms. The course may be repeated for credit when topics vary. Prerequisites: Graduate student standing and consent of instructor.

ORTO 6003. Introduction To Clinical Practices. 1 Credit Hour.
This course will provide an introduction to clinical medicine for the graduate biomedical engineering students. It will provide the opportunity for the student to gain a working knowledge of engineering aspects as it relates to clinical practice. A variety of specialties will be presented. The students will also have the opportunity to observe surgery to gain additional insight. Integration with the medical industry will be made at the end. Prerequisites: open to Biomedical Engineering graduate students.

ORTO 6004. Biology For Bioengineers. 3 Credit Hours.
This course provides a broad background in biological concepts with specific attention given to biological processes important in bioengineering. Topics will include biochemistry, genetics, molecular biology, cell biology, and physiology. Applications will emphasize understanding cellular processes important in bioengineering, such as gene therapy and tissue repair and regeneration. Prerequisites: permission of the instructor.

ORTO 6071. Supervised Teaching. 1 Credit Hour.
Supervised teaching of undergraduate, graduate, medical/dental students, or clinical residents will be required for at least one semester. For example, students may be required to lecture at undergraduate courses at UTSA, or lecture to orthopaedic/dental residents about implants and materials at the HSC. The exact nature of the teaching will be determined based on each student’s program of study. Prerequisites: admitted to candidacy and consent of the supervising professor, program director, and COGS chair.

ORTO 6090. Seminar. 1 Credit Hour.
Students will have the opportunity to hear presentations from outside speakers, BME faculty, and peers. Prerequisites: Graduate (Ph.D.) student standing; required of all students during fall and spring semesters while pursuing doctoral studies.

ORTO 6097. Research. 1-9 Credit Hours.
This course consists of independent, original research under the direction of a faculty advisor.

ORTO 6098. Thesis. 1-9 Credit Hours.
Registration for at least one term is required of M.S. candidates. Prerequisite: admission to candidacy for Master of Science degree.

ORTO 7000. Off Campus. 4 Credit Hours.
All off campus rotations must be approved by the designated faculty member prior to the beginning of the rotation (at least one week before the course begins). Credit will not be given for any rotation that has not been approved in advance. Required paperwork includes: “Course Approval” form, a written letter or email for acceptance form the physician preceptor with the start and end dates of the course/rotation, and a course description of your learning objectives and responsibilities during the rotation. Forms must include a complete address and telephone number for the off campus location or residence address for the student while at the off campus site. Forms will not be approved after the rotation has already begun. Contact the department for assistance with enrolling in this course.

ORTO 7001. Orthopaedics Preceptorship. 4 Credit Hours.
Students are assigned to a practicing orthopaedic surgeon or group from the Clinical Orthopaedic Faculty, either in San Antonio or out-of-town. The student is required to see patients in the surgeon’s private office, participate in the care of patients in the emergency room, and be involved in surgical cases. Rotations available include (but not limited to) preceptorships in hand surgery, sports medicine, spinal surgery, total joint replacement, pediatric orthopaedics, and general orthopaedics. A rotation description from the selected site must be turned in to the Orthopaedic Student Administrator.
**ORTO 7099. Dissertation. 1-9 Credit Hours.**
Registration for at least two semesters (12 SCH) after they have been admitted to candidacy for the doctoral degree is required for Ph.D. candidates. Prerequisite: admission to candidacy for Doctor of Philosophy degree in Biomedical Engineering, and consent of supervising professor, program director, and COGS chair.

**Otolaryngology (OTOL)**

**Courses**

**OTOL 3001. Head & Neck Surgery. Credit Hours.**
The course is a clinical experience in the outpatient, in-patient, and operative environments. The course is normally offered for those medical students who are interested in pursuing a career in the field, although the clinical experience is also valuable for students interested in primary care, ophthalmology, and applicable internal medicine subspecialties. The student clerk is a full participatory member of the clinical team and will gain valuable knowledge and experience in the diagnosis, medical, and surgical care of the patient with upper aerodigestive tract and related disorders. The student will have the opportunity to enhance her/his surgical technical skills, including emergency patient care. Clinical activities are available at both the University Hospital System and the VA Hospital. Clerkships at BAMC or WHAFMC are arranged through the institution’s education office. Exposure to the breadth and depth of the field includes general and pediatric otolaryngology, rhinosinusology, head and neck oncologic surgery, otology, laryngology and bronchoesophagology, maxillofacial trauma, and facial plastic and reconstructive surgery.

**OTOL 3002. Otorhinolaryngology Research. Credit Hours.**
The department offers students research opportunities in a diverse and wide range of clinical and basic science topics. Areas of on-going research include voice disorder, head and neck oncology, animal models in laryngotracheal stenosis, and clinical outcomes studies. New opportunities for research are present in the functional areas of otolaryngology and hearing science, head and neck surgery, laryngology, general otolaryngology, and facial plastic and reconstructive surgery.

**OTOL 4000. Special Topic. 4 Credit Hours.**
Special topics in Otolaryngology-Head and Neck Surgery.

**OTOL 4001. Head & Neck Surgery. 4 Credit Hours.**
The course is a clinical experience in the outpatient, in-patient, and operative environments. The course is normally offered for those senior medical students who are interested in pursuing a career in the field, although the clinical experience is also valuable for students interested in primary care, ophthalmology, and applicable internal medicine subspecialties. The student clerk is a full participatory member of the clinical team and will gain valuable knowledge and experience in the diagnosis, medical, and surgical care of the patient with upper aerodigestive tract and related disorders. The student will have the opportunity to enhance her/his surgical technical skills, including emergency patient care. Clinical activities are available at both the University Hospital System and the VA Hospital. Clerkships at BAMC or WHAFMC are arranged through the institution’s education office. Exposure to the breadth and depth of the field includes general and pediatric otolaryngology, rhinosinusology, head and neck oncologic surgery, otology, laryngology and bronchoesophagology, maxillofacial trauma, and facial plastic and reconstructive surgery.

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**Pathology (PATH)**

**PATH Courses**

**PATH 3002. Blood Banking. Credit Hours.**
This elective is to acquaint the student with transfusion practices including the indications, dosage, expected benefits and risks of the different blood components, and the performance of therapeutic apheresis. The student will also be exposed to basic immuno-hematology and blood-banking techniques of acquiring, processing, testing, and transfusing blood components. Under the direction of the pathologist, a transfusion medicine fellow, a pathology resident, and a technical specialist in blood banking, the student will be required to perform basic techniques, participate in resolving the problems of patients having difficulties in transfusion, and evaluate the appropriateness of transfusion episodes. The elective can be tailored to offer more experience in transfusion practices for patient care or in organization, management, quality control, and other factors important to the student who may consider laboratory medicine as a chosen field. Students will participate in consultations and education programs offered by the blood bank.

**PATH 3004. Anatomic Pathology. Credit Hours.**
Emphasis may center on one aspect of anatomic pathology (surgical pathology or autopsy pathology), or on the pathology of a specific organ system, such as gynecologic pathology, hematopathology, neuropathology, dermatopathology, pulmonary etc. Interested students should first review their plans with Dr. Francis Starkey, who will refer them to other Pathology faculty as needed. Students will assist in handling of tissues received from surgical procedures and may participate in autopsy dissections. Students will study microscopic slides and assigned reading, and will be expected to do a brief case presentation at Anatomic Pathology Grand Rounds.
PATH 3012. Anatomic Path: Fine Needle Aspiration. Credit Hours.
Students will be given the opportunity to learn the technique of fine needle aspiration (FNA) biopsy. Direct supervision by faculty, cytology fellow and/or pathology resident in the method of specimen procurement and preparation of the FNA specimen occurs after initial instruction by the course director or their designee for palpable lesions. Participation at radiologically guided or endoscopically guided FNAs is also observed. Students are required to learn basic Modified-Giemsa staining with preliminary evaluation for adequacy of aspirate. There will be exposure to basic interpretation of FNA material from smears and cell blocks with emphasis on selection of ancillary testing along with clinical correlation. A separate clinic time is NO longer available and FNAs are done on an "on-call" basis from UHS cytopathology. Exposure to other areas of anatomic pathology that pertain to quality improvement of clinical medicine skills will also be made available. The experience may be customized depending on the student's future interests (pathology as a future vocation versus students planning on other fields of medicine).

PATH 3015. Forensic Pathology. Credit Hours.
The forensic pathology rotation must be pre-approved by the course instructor for both time period and length of rotation. Daily responsibilities include attending morning rounds with the duty medical examiner and the observation of forensic autopsies. Other responsibilities will include crime scene investigation, courtroom and/or deposition exposure, attending the weekly case review conference and a presentation on a current forensic topic. During the rotation period, the student is expected to spend some time within the toxicology laboratory and must arrange this with the Chief Toxicologist. The student is responsible for maintaining a log of their activities during the rotation.

PATH 4001. Hematology - University Hospital. 4 Credit Hours.
During this selective, through daily experience, consultations, and conferences, students will have the opportunity to learn to use CBCs, blood films, bone marrow studies, and other hematologic laboratory data in the diagnosis of basic hematologic, lymphoid, and coagulation disorders. This selective can be tailored according to the needs of individual students. The student interested in primary care can become involved in the performance of common laboratory tests done in the office. Daily contact with the pathologist will provide guidance in selection and proper utilization of laboratory testing for a specific patient's problem. For the student interested in pathology and laboratory medicine, the organization, management, maintenance of quality control, and consultative role of the Hematology Laboratory will be emphasized. During the selective period, a student may be assigned to spend one week in flow cytometry, molecular genetics, or cytogenetics.

PATH 4002. Blood Banking. 4 Credit Hours.
This selective is to acquaint the student with transfusion practices including the indications, dosage, expected benefits and risks of the different blood components, and the performance of therapeutic apheresis. The student will also be exposed to basic immuno-hematology and blood-banking techniques of acquiring, processing, testing, and transfusing blood components. Under the direction of the pathologist, a transfusion medicine fellow, a pathology resident, and a technical specialist in blood banking, the student will be required to perform basic techniques, participate in resolving the problems of patients having difficulties in transfusion, and evaluate the appropriateness of transfusion episodes. The selective can be tailored to offer more experience in transfusion practices for patient care or in organization, management, quality control, and other factors important to the student who may consider laboratory medicine as a chosen field. Students are required to participate in consultations and education programs offered by the blood bank.

PATH 4003. Hematology/Blood Banking. 4 Credit Hours.
This combination selective between the Hematology Laboratory and the Blood Bank may be arranged if student so desires.

PATH 4007. Pathology Research. 4 Credit Hours.
The course involves participation in a selected facet of ongoing research projects being conducted by a faculty member with assigned responsibilities for technical performance, reading, and interpretation of results.

PATH 4012. Anatomic Pathology: Fine Needle Aspiration. 4 Credit Hours.
Students will be given the opportunity to learn the technique of fine needle aspiration (FNA) biopsy. Direct supervision by faculty, cytology fellow and/or pathology resident in the method of specimen procurement and preparation of the FNA specimen occurs after initial instruction by the course director or their designee for palpable lesions. Participation at radiologically guided or endoscopically guided FNAs is also observed. Students are required to learn basic Modified-Giemsa staining with preliminary evaluation for adequacy of aspirate. There will be exposure to basic interpretation of FNA material from smears and cell blocks with emphasis on selection of ancillary testing along with clinical correlation. A separate clinic time is NO longer available and FNAs are done on an "on-call" basis from UHS cytopathology. Exposure to other areas of anatomic pathology that pertain to quality improvement of clinical medicine skills will also be made available. The experience may be customized depending on the student's future interests (pathology as a future vocation versus students planning on other fields of medicine).

PATH 4015. Forensic Pathology. 2 Credit Hours.
During the rotation period, the student is expected to spend some time within the toxicology laboratory and must arrange this with the chief toxicologist. Near the end of the rotation, the student is expected to present a talk on a topic of current forensic interest to the staff during weekly case review. The student will be assessed by attendance, type and frequency of activities performed, and subjective evaluations by the medical examiner staff. This forensic pathology rotation must be pre-approved by the course director for both time period and length of rotation; recommended during the fourth year of medical school following core rotation in general autopsy and surgical pathology, though those rotations are not required.

PATH 4103. Hematology/Blood Banking. 4 Credit Hours.
The Advanced Hematology course will be taught using case-based discussion. The first session will be a review of red blood cell and white blood cell abnormalities. The remainder of the sessions will focus on two to three specific cases of red blood cell or white blood cell disorders. Discussion will cover differential diagnosis, appropriate laboratory studies, clinical findings, and prognosis. Discussions will include adult and pediatric cases of various types of anemia, leukemia, myeloproliferative disorders, myelodysplastic states, plasma cell disorders, and lymphoma. The pass/fail grade will be determined by attendance and participation in group discussions.
PATH 4104. Naturopathic Medicine: Evidence-Based Critique. 0.5 Credit Hours.
This course strives to overcome the animosity between conventional and unconventional medicine by openly discussing and evaluating some of the naturopathic methods using the tools of evidence-based medicine. The objective of this course is to build basic knowledge about the mainstreams of naturopathic medicine such as fito-therapy, acupuncture and other reflexologies, Asian and European dietary systems, as well as stimulatory methods such as fasting and homeopathy. For each of these systems, diagnosis and treatment will be discussed from the evidence-based perspective.

PATH 4105. Evidence Based Medicine In Everyday Practice. 0.5 Credit Hours.
This course includes theory and methodological foundation, definitions and overview of evidence-based medicine, practical considerations, and reporting in evidence-based medicine.

PATH 4290. Clinically Applied Laboratory Medicine (CALM). 0.5 Credit Hours.
This course is an eleven-contact-hour mandatory course in laboratory medicine for MSIV students. Offered during the spring semester, the course is taught by members of the Pathology Department using patient case scenarios to illustrate laboratory medicine aspects of patient care management. An introductory one-hour lecture is presented to the entire class as a whole to provide course format information and small-group assignments. Groups of twenty-five to thirty students are formed based upon medical/surgical specialties; a student is assigned to a group according to chosen specialty. Patient cases are selected to emphasize important laboratory medicine points pertinent to a particular specialty.

PATH 5021. Biostatistics. 3 Credit Hours.
An introduction to Biostatistics, emphasis is upon application of statistical methods to biological problems. Topics include descriptive statistics, probability, hypothesis testing, and estimation.

PATH 5025. Individual Study In Biometry. 1-9 Credit Hours.
This course is for students who wish to study special problems in biometry or application of biometric methods to problems in the life sciences. A plan of study is determined by the student and the biometry faculty with topics varying according to the interests and requirements of the student.

PATH 5030. Oral Histopathology. 1 Credit Hour.
The course will review the histopathologic features of oral diseases. Cases signed-out on the Oral & Maxillofacial Pathology Biopsy Service will be discussed in a conference format utilizing a multtheaded microscope. Correlation of the histologic findings with the clinical and radiographic presentation of oral disease processes will be emphasized. Students will have the opportunity to learn the basis of surgical pathologic diagnosis and related ancillary special studies.

PATH 5035. Oral Pathology. 2 Credit Hours.
Clinicopathologic correlations, differential diagnosis, and therapeutic rationale are emphasized. The integration of history, physical findings, and clinical laboratory data with pertinent radiographic findings, clinical presentations, and anatomic pathology will be emphasized.

PATH 5121. Biostatistics. 1 Credit Hour.
This course is designed to prepare the advanced education dentist with the knowledge of common statistical methods in order to critically evaluate the literature and to perform necessary analyses in support of their own research projects, particularly those directed at the completion of the Certificate from the Dental School and/or the Master of Science degree from the Graduate School of Biomedical Sciences.

PATH 6019. General Pathology. 5 Credit Hours.
The fundamentals of human pathology, with emphasis on practical clinical applications, are presented. Lectures, independent study, and laboratory experiences are used in a review of the principal diseases of major organ systems. Course fees: Lab fee Microscope fee: $48.

PATH 6021. Oral Pathology 1. 4 Credit Hours.
This didactic course introduces the basic pathologic changes that occur in oral tissue. Lectures are supplemented by Kodachrome® illustrations with emphasis placed upon histoclinical correlation.

PATH 6026. Surgical Oral Pathology 1. 1 Credit Hour.
This course is presented in the first semester and consists of 16 one-hour sessions of instruction conducted as case conferences utilizing radiographic, histopathologic, and clinical projected glass slides and Kodachromes. Students present assigned literature reviews and cases emphasizing radiographic and histopathologic changes; discussions follow. Students include those from Oral and Maxillofacial Surgery, Periodontics, Endodontics, and Dental Diagnostic Sciences.

PATH 6027. Surgical Oral Pathology 2. 1 Credit Hour.
This course is a continuation of PATH 6026 Surgical Oral Pathology 1. It is presented in the second semester and consists of 17 one-hour sessions of instruction conducted as case conferences utilizing radiographic, histopathologic, and clinical projected glass slides and Kodachromes. Students present assigned literature reviews and cases emphasizing radiographic and histopathologic changes; discussions follow. Students include those from Oral and Maxillofacial Surgery, Periodontics, Endodontics, and Dental Diagnostic Sciences.

PATH 7000. Off Campus. 4 Credit Hours.
All off campus rotations must be approved by the designated faculty member prior to the beginning of the rotation (at least one week before the course begins). Credit will not be given for any rotation that has not been approved in advance. Required paperwork includes: “Course Approval” form, a written letter or email for acceptance form the physician preceptor with the start and end dates of the course/rotation, and a course description of your learning objectives and responsibilities during the rotation. Forms must include a complete address and telephone number for the off campus location or residence address for the student while at the off campus site. Forms will not be approved after the rotation has already begun. Contact the department for assistance with enrolling in this course.

PATH 7023. Oral & Maxillofacial Pathology: Clinicopathologic Conference. 1 Credit Hour.
This course is a series of 14 clinicopathologic conferences presented in an interactive case-based/diagnostic problem-solving format. Students will be expected to apply their fund of basic science knowledge learned in the prerequisite didactic pathology courses to simulated dental practice situations. Cases will be discussed systematically utilizing the S.O.A.P. format (Subjective, Objective, Assessment, Plan). Students are required to complete and turn in a worksheet and self assessment for each case. Students are expected to read articles from current scientific literature posted on the course Blackboard Web site and take the online challenge examinations. Lectures on the critical topics of head and neck cancer and skin cancer will be given by the course director.
Pediatric Dentistry (PEDO)

Courses

PEDO 5020. Pedi/Ortho Clinic I. 2 Credit Hours.
The postdoctoral program in pediatric dentistry is designed to provide each resident with clinical experience that will enable her or him to function as a proficient and competent provider of comprehensive dental services for children. Throughout the two-year program, residents will be expected to apply the information gained in the didactic part of the program to the delivery of dental care in the various clinical settings encompassed by the program. Although supervision by faculty is always provided, residents are expected to demonstrate increasing independence and initiative as they progress in clinical experience.

PEDO 5021. Pedi & Ortho Clinic 2. 5 Credit Hours.
The postdoctoral program in pediatric dentistry is designed to provide each resident with clinical experience that will enable her or him to function as a proficient and competent provider of comprehensive dental services for children. Throughout the two-year program, residents will be expected to apply the information gained in the didactic part of the program to the delivery of dental care in the various clinical settings encompassed by the program. Although supervision by faculty is always provided, residents are expected to demonstrate increasing independence and initiative as they progress in clinical experience.

PEDO 5022. Orthodontics I. 2 Credit Hours.
This course comprises two seminar series in which orthodontic diagnosis and treatment principles for the primary and mixed dentitions are presented. Included also are laboratory technique exercises in which commonly used orthodontic appliances are constructed.

PEDO 5027. Orthodontics 2. 2 Credit Hours.
These seminars consist of a series of selected orthodontic topics that will be assigned to individual residents for presentation to their classmates and faculty. The course director will provide a seminal article on the assigned topic from which the resident will research additional references and present a seminar session based on the material.

PEDO 5028. Orthodontics 3. 1.5 Credit Hour.
These seminars consist of a series of selected orthodontic topics that will be assigned to individual residents for presentation to their classmates and faculty. The course director will provide a seminal article on the assigned topic from which the resident will research additional references and present a seminar session based on the material.

PEDO 5042. Pediatric Dentistry I. 2 Credit Hours.
This course comprises several seminar series and lectures on a variety of subjects pertinent to advanced pediatric dentistry. Included are conscious sedation, pulp therapy, traumatic dental injuries, cariology and prevention, periodontal problems, special patient care, infection control, restorative materials and techniques, radiographic principles and practice, and pediatric grand rounds.

PEDO 5043. Pediatric Dentistry 2. 6 Credit Hours.
This course is largely a continuation of lectures and seminars on the subject matter introduced in PEDO 5042 Pediatric Dentistry 1, but also adds case conferences and current literature seminars.

PEDO 5044. Pediatric Dentistry 3. 6 Credit Hours.
In part, this is a continuation of some lecture and seminar topics from PEDO 5043 Pediatric Dentistry 2. In addition, the following subject matter will be presented: behavior management, psychosocial growth and development, pediatric oral pathology, advanced nutrition, craniofacial growth and development, antibiotics, and analgesics and sedatives.

PEDO 5051. Pediatric Physical Diagnosis. 1.5 Credit Hour.
The pediatric dental resident will be given the opportunity to learn physical evaluation of a child’s various systems to determine the patient’s status prior to administration of general anesthesia.

PEDO 6023. Pediatric And Orthodontic Clinic 4. 7 Credit Hours.
The postdoctoral program in pediatric dentistry is designed to provide each resident with clinical experience that will enable him or her to function as a proficient and competent provider of comprehensive dental services for children. Throughout the two-year program, residents will be expected to apply the information gained in the didactic part of the program to the delivery of dental care in the various clinical settings encompassed by the program. Although supervision by faculty is always provided, residents are expected to demonstrate increasing independence and initiative as they progress in clinical experience.

PEDO 6024. Pediatric and Orthodontic Clinic 5. 4.5 Credit Hours.
The postdoctoral program in pediatric dentistry is designed to provide each resident with clinical experience that will enable him or her to function as a proficient and competent provider of comprehensive dental services for children. Throughout the two-year program, residents will be expected to apply the information gained in the didactic part of the program to the delivery of dental care in the various clinical settings encompassed by the program. Although supervision by faculty is always provided, residents are expected to demonstrate increasing independence and initiative as they progress in clinical experience.

PEDO 6025. Pediatric and Orthodontic Clinic 5. 7 Credit Hours.
The postdoctoral program in pediatric dentistry is designed to provide each resident with clinical experience that will enable him or her to function as a proficient and competent provider of comprehensive dental services for children. Throughout the two-year program, residents will be expected to apply the information gained in the didactic part of the program to the delivery of dental care in the various clinical settings encompassed by the program. Although supervision by faculty is always provided, residents are expected to demonstrate increasing independence and initiative as they progress in clinical experience.

PEDO 6029. Orthodontics 4. 2 Credit Hours.
These seminars consist of a series of selected orthodontic topics that will be assigned to individual residents for presentation to their classmates and faculty. The course director will provide a seminal article on the assigned topic from which the resident will research additional references and present a seminar session based on the material.

PEDO 6030. Orthodontics 5. 2 Credit Hours.
These seminars consist of a series of selected orthodontic topics that will be assigned to individual residents for presentation to their classmates and faculty. The course director will provide a seminal article on the assigned topic from which the resident will research additional references and present a seminar session based on the material.
PEDO 6045. Pediatric Dentistry 4. 6 Credit Hours.
A continuation of the case conferences, current literature seminars, and pediatric grand rounds, this course also introduces practice management and topics in clinical genetics.

PEDO 6083. Investigative Project. 1 Credit Hour.
Each resident is required to carry out an investigative project that may be laboratory-, clinic-, or library-based, depending on the interests of the student. Projects must be submitted in the form of a manuscript or publishable quality.

PEDO 6084. Investigative Project. 1 Credit Hour.
Each resident is required to carry out an investigative project that may be laboratory-, clinic-, or library-based, depending on the interests of the student. Projects must be submitted in the form of a manuscript or publishable quality.

PEDO 6146. Pediatric Dentistry 5. 5 Credit Hours.
This course continues the case conferences, current literature seminars, and pediatric grand rounds of PEDO 6045 Pediatric Dentistry 4, adding craniofacial anomalies seminars.

PEDO 7041. Pediatric Dentistry Lecture. 1 Credit Hour.
This course covers development of the dentition, preventive and interceptive orthodontics, trauma and pulp therapy in primary teeth, pediatric restorative dentistry, periodontics, pediatric oral pathology and surgery, preventive dentistry, behavior management, and special problems in children.

PEDO 7091. Pediatric Dentistry Clinic. 2 Credit Hours.
Clinical experience with child patients gives students the opportunity to gain clinical judgement and proficiency while practicing comprehensive dentistry for children. Areas of competency include prevention, examination, diagnosis and treatment planning, local anesthesia, operative dentistry, pulpal therapy, oral injuries, oral surgery, preventive and interceptive orthodontics, behavior management, maintenance care, and periodontics.

Pediatrics (PEDI)

Courses

PEDO 3002. Pediatric Developmental Disabilities. Credit Hours.
This elective is combined experience in Developmental-Behavioral Pediatrics, Child Neurology and Genetics. The student will have the opportunity to participate in the developmental, neurological and genetic evaluation of children with developmental-behavioral disabilities. The goals of the elective include enhancing skills in assessing and interpreting findings of developmental behavioral assessments, understanding the neurological and generic work-up, and becoming familiar with community resources for special needs children through key community site visits. The student will also become acquainted with interdisciplinary assessments. In addition to core didactic, students will have independent reading that complement their clinical activities. The elective is set in the outpatient subspecialty clinics at the Christus Santa Rosa Children’s Hospital and the developmental behavioral clinics of the San Antonio Military Pediatric Center. Common developmental-behavioral disabilities encountered in this rotation may include Autism Spectrum Disorders, Attention-Deficit Hyperactivity Disorder, global developmental delay, Intellectual Disability (formerly Mental Retardation), Learning Disabilities, Neural Tube Defects and Cerebral Palsy.

PEDO 3003. Clinical Preceptorship Ambulotary Pediatrics. Credit Hours.
This course provides medical students with the knowledge and skills to understand human growth and development and its clinical application from infancy through adolescence. It includes taking a complete, accurate, and culturally sensitive history from children and their families, and performing a complete, problem-focused physical examinations on infants, children, and adolescents for common acute and chronic pediatric illnesses. Students will communicate effectively in written and oral form with physicians, patient families, and clinic staff, describe the influence of the family, community and society on child health and disease, incorporate strategies for health promotion and injury prevention into patient care, and coordinate care with sub-specialists and community agencies.

PEDO 3005. Pediatrics Clerkship. 7 Credit Hours.
This third-year pediatric clerkship addresses issues unique to childhood and adolescence by focusing on human developmental biology, and by emphasizing the impact of family, community, and society on child health and well-being. Additionally, the clerkship focuses on the impact of disease and its treatment on the developing human, and emphasizes growth and development, principles of health supervision, and recognition of common health problems. The role of the pediatrician in prevention of disease and injury and the importance of collaboration between the pediatrician and other health professionals in stressed. During this clerkship, students spend time working in outpatient and inpatient settings.

PEDO 3006. Pediatric Cardiology. Credit Hours.
This rotation is geared to improve student’s understanding of the pathophysiology and management of pediatric and congenital heart diseases. The student will be offered didactic instruction, as well as slide and computerized material, to improve his/her skills. Clinical skills in cardiac auscultation, EKG interpretation, and chest x-ray interpretation will be emphasized primarily in the outpatient setting. The students will receive exposure to noninvasive techniques in diagnosis such as echocardiography, and invasive procedures in the cardiac catheterization laboratory. Student learning will be further enhanced by attendance and participation at weekly patient management conferences.

PEDO 3009. Pediatric Gastroenterology/Nutrition. Credit Hours.
This rotation offers an opportunity to participate in the diagnosis and management of gastrointestinal, liver and nutritional disorders of children. Sites include inpatient facilities at CHRISTUS Santa Rosa Children’s Hospital and outpatient clinic at the CHRISTUS Santa Rosa Clinic. The student will participate actively in seeing patients, in the diagnostic process, including procedures if necessary. Required reading and discussion of the study material covered is expected. Didactic sessions separate from clinical teaching sessions are done to cover the study material.

PEDO 3012. Primary Ambulatory Care Preceptorship - Pediatrics. Credit Hours.
This rotation offers a clinical experience utilizing the office practice of qualified pediatrician preceptors. Preceptorships are available with general pediatricians or with subspecialties. Preceptorships experience must be scheduled well in advance and may be 2 or 4 weeks in length. Students will acquire knowledge of: the life-style of a practicing physician; the business aspects of the practice of medicine; and the patient profile of a practicing pediatrician. The student will increase his/her skills in pediatric physical diagnosis; skills in clinical decision making; knowledge of pediatric differential diagnosis; and knowledge of pediatric therapeutics. Students must arrange to work with a preceptor before contacting the department for permission.
PEDI 3013. Pediatric Hematology/Oncology. Credit Hours.
The student will participate in the diagnostic evaluation, therapy, and follow-up of hematology/oncology patients at CHRISTUS Santa Rosa Children’s Hospital. This is an opportunity for experience in blood and bone marrow morphological diagnosis, in techniques for bone marrow aspiration, and intravenous and intrathecal chemotherapy.

PEDI 3015. Pediatric Hematology/Oncology Research. Credit Hours.
Previous experience with introductory adult or pediatric hematology/oncology courses preferred. The student will participate in a clinical or basic investigation project on a topic of interest to the student under the supervision of the medical staff. The research might utilize retrospective information on specific groups of patients treated at the Children’s Cancer Research and Treatment Center, the Hematology Clinic, or the Bone Marrow Transplant Unit; or it may investigate in-depth a particular clinical or basic facet of a disease process.

PEDI 3016. Pediatric Allergy, Immunology, and Infectious Diseases. Credit Hours.
Students are required to actively participate in all clinical activities of the Division, including outpatient clinics and inpatient consultations. Emphasis is placed on clinical and laboratory evaluation of hypersensitivity, infection, immunity, and inflammation, and the management of allergic disease, infectious diseases, primary and secondary immune deficiencies, rheumatologic conditions, and associated complications. The scope of infectious diseases typically encountered includes community- and hospital-acquired infections, including post-surgical infections, infections in cancer and transplant patients, and HIV-infected children.

PEDI 3018. Child Neurology. Credit Hours.
Students will gain exposure to the evaluation and management of children with neurologic disorders. Students will develop skills in how to distinguish normal from abnormal neurologic development; how to perform a skillful neurologic history and exam to distinguish normal from abnormal findings, peripheral from central nervous system lesions, and static from progressive neurologic dysfunction; how to identify temporary vs. chronic progressive neurologic dysfunction; how to recognize and manage neurological disorders that generally require referral. Students will be able to discuss the indications, side effects, and mode of action of commonly used medications in pediatric neurology; the indications for complex or expensive neurologic testing; and the pediatrician’s role in prevention of neurologic disorders in children.

PEDI 3020. Pediatric Endocrinology. Credit Hours.
Disorders of thyroid/parathyroid, adrenal/gonad, growth (including hypopituitarism) and carbohydrate metabolism (including diabetes mellitus), respectively, are covered during each of the 4 weeks of the rotation. Outpatient clinics meet 8 or more half-days each week (4 or more half-days at CHRISTUS Santa Rosa and 4 or more half-days at the Children’s Center at the Texas Diabetes Institute). Clinics are focused on either diabetes (type 1, type 2, medical diabetes) or endocrine issues. Directed reading is provided, and the patients are reviewed and the pertinent literature discussed at conferences held two to three times weekly. Informal lectures occur during clinic time as well. There is a weekly case management conference at which students present interesting cases and laboratory results obtained during the week are discussed. Students are also encouraged to attend Pediatric and Endocrine Grand Rounds.

PEDI 3022. Neonatal Research. Credit Hours.
This rotation is designed for students interested in laboratory or clinical research experience in Perinatal Medicine. The student will work directly under the guidance of a faculty member and be involved in data gathering, chart review, or lab work in the area of research in which the faculty is involved and commensurate with the student’s experience and interests. The selective will provide opportunities for protocol development, literature review, data analysis, and learning through reading and student-faculty interaction. Students must arrange to work with a neonatal faculty member before contacting the department for permission.

PEDI 3023. Neonatal Intensive Care Unit Externship. Credit Hours.
This rotation includes all of the duties of a pediatric first-year resident under the supervision of a senior pediatric resident and the pediatric full-time faculty. Weekend and night call schedules are integrated with those of the pediatric housestaff. Students will work 6 days/week with 1 day off. As the 4th weekend is off, this translates to 3 days off during the rotation. These 3 days may be used for interviews; additional days off for interviewing should not be expected.

PEDI 3027. Pediatric Genetics. Credit Hours.
Students will participate in CHRISTUS Santa Rosa clinics for experience with single gene disorders, chromosome abnormalities, multiple congenital anomalies, and teratogenic exposures. Students are required to participate in inpatient consultations. Students are required to participate in scheduled multidisciplinary clinics including craniofacial anomalies clinic. Opportunities with inpatient consultations at other local hospitals and prenatal genetics clinic are also available. Students will have the opportunity to gain skills in genetic physical exam, pedigree analysis, genetic counseling, dysmorphology, as well as ordering and interpreting DNA, chromosomal, FISH, and metabolic testing. Training in differential diagnosis includes use of genetics databases and Internet resources. Students will present a case/review of a disorder or management issues during the last week of their rotation in conference. Patient encounters range from 45 minutes to 3 hours depending on the patient and the chief concerns. Weekend and evening experiences are subject to variation in clinical request made to the Division. Students should let the course instructor know their (voluntary) availability if this situation arises.

PEDI 3029. Pediatric Pulmonology. Credit Hours.
The main objective of this rotation is to acquaint students with the diagnosis and treatment of the most common pediatric pulmonary disorders. The emphasis will be on how to obtain pertinent history, the recognition of physical signs of pulmonary diseases, CXR and blood gas evaluation, and the critical assessment of the data gathered. The practice of evidence-based medicine will be emphasized. Whenever possible, didactic material will be linked to patient care. Students are required to participate in all available outpatient pulmonary clinics and will follow pediatric inpatients with pulmonary disorders.

PEDI 3031. Pediatric Nephrology. Credit Hours.
This course offers the student the opportunity to learn the essential concepts in the pathophysiology and the management of fluid and electrolytes and acid base disturbances. It also offers ample involvement in the diagnosis and management of common renal disorders in children as well as significant participation in the management of dialysis and kidney transplant patients. The student is required to attend the renal clinics at Children’s Kidney Center and participates in the management of in-patients. There will be an opportunity to learn histopathology of renal diseases through reviewing biopsies with pathologists.
PEDI 3036. Pediatric Critical Care Externship - University Hospital. Credit Hours.
This rotation offers in-depth exposure to the science and care of the critically ill infant and child with particular emphasis on surgical intervention. The University Hospital Pediatric ICU provides comprehensive critical care services but focuses on trauma care, neurointensive care, and transplantation services. This opportunity provides exposure to multidisciplinary care of the child with neuro or general trauma, and will provide the opportunity to enhance knowledge and skills in invasive procedures, principles of mechanical ventilation, principles of resuscitation, pharmacology of critical care, and the pathophysiology of these diseases. The student is required to participate in daily rounds with the attending pediatric faculty and radiology rounds with pediatric radiologists. Directed reading will be provided.

PEDI 3037. Pediatric Critical Care Extern - Christus Santa Rosa Children's Hospital (CSRCH). Credit Hours.
This rotation offers in-depth exposure to the pathophysiology and care of the critically ill infant and child. This opportunity will provide experience with care of children in a multidisciplinary PICU. Knowledge and skills in invasive procedures, principles of mechanical ventilation, pharmacology of critical care, interpretation of blood gases, and pathophysiology of critical illness will be available. The student is required to participate in daily work, attending, and x-ray rounds. Directed reading and didactic lectures are provided. The CHRISTUS Santa Rosa Children's Hospital Pediatric ICU has 1,500 admissions per year of which 65% are medical. Surgical patients are predominantly neurosurgical, orthopedic, and general pediatric surgery.

PEDI 3038. Pediatric Dermatology. Credit Hours.
The pediatric dermatology 4-week on-campus selective is specifically designed to increase the student’s recognition of pediatric skin disease and its effect on the child’s well being and family dynamics. The student is required to participate in conferences, didactic sessions, and patient care.

The goals of the course are for the student to see child maltreatment as a common cause of many acute, delayed, and chronic physical and mental health conditions. Students will have the opportunity to recognize demographic risk factors, but see child abuse as a medical diagnosis made by the history and physical examination, not by the family’s profile. Students will have the opportunity to learn the reporting mandate, and know how to report to the appropriate agency(ies). Training is directed primarily at an attitudinal shift in awareness and comfort with considering child abuse in a broad range of clinical settings. After training, the student should have learned to understand the following statements, and will have had an opportunity to ask questions about any of the objectives for which they desire more information. 1) Abuse and neglect are common; 2) Abuse and neglect strike all social groups, but affect certain groups disproportionately; 3) Abuse and neglect are medical diagnoses made by history, physical examination, and ancillary studies on a case-by-case basis. 4) Abuse and neglect have immediate, short-term, intermediate-term, and long-term effects that extend into adulthood; 5) All medical providers are legally required to report on a “reasonable basis to suspect child abuse” and certain levels of neglect to appropriate agencies in every state in the U.S.

PEDI 3040. Inpatient Pediatrics. Credit Hours.
The purpose of this rotation is to prepare the student for his/her pediatric inpatient wards during residency. The student will have opportunity to enhance his/her knowledge of basic inpatient pediatric diseases as well as improve his/her clinical skills such as oral and written case presentation, physical examination, hands-offs, and incorporating evidence-based medicine into clinical practice. These goals will be reached through direct clinical practice, small-group didactic, an online clinical reasoning skills module and various educational activities set up for the student. Constructive/Formative feedback will be offered real time on a daily basis. A formative observed H+P will occur during the first week of the rotation. The student will receive weekly summative feedback based on an evaluation rubric.

PEDI 3074. AHEC Clinic Experience. Credit Hours.
Under the auspices of the UTHSCSA AHEC Program, this experience exposes students to the primary care of ambulatory patients at various AHEC clinical training sites in South Texas. Under the direct supervision of a Board Certified General Pediatrician, the student serves as the initial physician in the evaluation and management of a wide array of outpatient problems. This clinic experience may include associated inpatient experience, depending on the patient responsibilities of the physician. Information about training sites may be found on the AHEC Website: http://www.uthscsa.edu/cstp/index.aspx. The student must first receive permission from the Department of Pediatrics before contacting the AHEC office (567-7819). Application must be made 6-8 weeks in advance of the date on which you want to start the rotation. Once the rotation is confirmed by the AHEC Office, the student will be given electronic permission to go online and register for the course. On or before the first day of the rotation, the student will need to meet with the Administrative Associate at the Center for South Texas programs/AHEC OFFICE (567-7819).

PEDI 3080. Pediatric Emergency Medicine. Credit Hours.
This four-week clinical clerkship will be conducted at the Children’s Emergency Services Department, CHRISTUS Santa Rosa Children’s Hospital. Up to four students per block may take this course. These senior medical students will be exposed to Pediatric Emergency Medicine both in the Children’s Hospital Emergency Department and during Core Case Discussion Conferences. Topics to be discussed both in the clinical and conference settings include: Child with Shock, Child with Seizure (Febrile and non-Febrile), Child with Elbow Injury, Child with Rash, Child with Vomiting and Diarrhea, Child with Wheezing - Asthma and Bronchiolitis, Child with Fever and AMS (meningitis), Child with Limp (knee and hip), Child with Abdominal Pain - Appendicitis, Child with Abdominal Pain - Intussusception, Child with Breathing Difficulty - Pneumonia, Child with Ingestion, Child with Hemophilia, Child with Head Injury, Child with a Laceration, Child with a "Spider Bite" - Abscess, Child with DKA, Child with Near-Drowning, Child with Bee Sting - Anaphylaxis, and Child with Cyanosis. Students will work 8-hour shifts (7 a.m.-3 p.m., 3-11 p.m., and 11 p.m.-7 a.m.) which will vary throughout the rotation.
PEDI 3201. Community Pediatrics-RAHC. Credit Hours.
The Department of Pediatrics offers this 4-week rotation at the RAHC for students interested in the contextual and systemic dimensions of general pediatrics. Goals for this rotation are 1) to experience and gain an understanding of the social, cultural, economic, and family forces which impact on the health status of children in the Lower Rio Grande Valley; 2) to experience and gain an understanding of how the financing and organization of the health care system succeeds or fails to deliver optimal care to children and families; 3) to experience and gain an understanding of the community roles of the pediatrician as a member of the health care team, and as an advocate for children. Students are required to work with pediatricians in community practices. In addition to clinical work with patients, students are required to participate in business meetings of the practices, work with other members of the health care team (such as nurse practitioners, physician assistants, and social workers), and participate with physicians in their hospital and other agency committee duties.

PEDI 3204. Pediatric Neurology-RAHC. Credit Hours.
Students will work with a pediatric neurologist in his private practice in Brownsville and Harlingen. The student will see patients with the neurologist in his office and visit local hospitals with him as he responds to requests for consultation. The neurologist’s practice includes a broad array of children with neurological problems, including seizure disorders, behavior disorders, congenital anomalies, malignancies, and cerebral palsy. The student will have the opportunity to gain clinical skills in interviewing, physical and neurological assessment, EEG interpretation, and the use and interpretation of imaging studies. In addition, the student will have the opportunity to learn how the neurologist, as a specialist-consultant, interacts with referring physicians and agencies. The preceptor will guide the student in selecting appropriate reading to enhance the experiential component of the elective. Facility in Spanish is desirable but not essential.

PEDI 3205. Evidence Based Pediatrics-RAHC. Credit Hours.
The student will have the opportunity to explore the ways in which the EBM process is used in clinical practice through assigned readings and clinical experience. Students will spend mornings in an ambulatory care practice. From each morning’s clinical experience, the student will identify one or two clinical questions. In the afternoons, the students will work in the medical library to formulate an answerable question, develop a search strategy, locate relevant literature, select a journal article, evaluate the article using EBM formulas, and reach a conclusion about the clinical questions. The preceptor will review the findings with the students in clinic the following morning. Culmination of the experience will be a case presentation in an appropriate forum such as a journal club or rounds.

PEDI 3206. Pediatric Cardiology-RAHC. Credit Hours.
Students will work with pediatric cardiologists in their private practice in Brownsville and Harlingen. Both cardiologists are members of the RAHC pediatric faculty. The student will see patients with the cardiologists in their office, and visit local hospitals with them as they respond to requests for consultation. The student will have the opportunity to gain clinical skills in interviewing, physical assessment, EKG, and echocardiogram interpretation. Since many of the cardiac disorders managed in this practice are chronic in nature, students will have the opportunity to learn how children and their families cope with these conditions at home, in school, and in the community at large. Preceptors will guide the student in selecting appropriate reading to enhance the experiential component of the elective.

PEDI 3209. Pediatric Gastroenterology - RAHC. Credit Hours.
Students will work with a pediatric gastroenterologist in her practice in Harlingen. The student will see patients with the gastroenterologist in her office, and visit local hospitals with her as she responds to requests for consultation. The gastroenterologist’s practice includes a broad array of children with gastrointestinal problems, including digestive and malabsorptive disorders, short-gut syndrome, congenital anomalies, cystic fibrosis, recurrent infections, inflammatory bowel disease, and failure to thrive. The student will gain clinical skills in interviewing, physical assessment, the use and interpretation of imaging studies, and the indications for and interpretation of endoscopic assessments. In addition, the student will learn how the gastroenterologist, as a specialist-consultant, interacts with referring physicians and agencies. Since many of the gastrointestinal disorders managed in this practice are chronic in nature, students will learn how children and their families cope with these conditions at home, in school, and in the community at large. The preceptor will guide the student in selecting appropriate reading to enhance the experiential component of the elective. The student may have an opportunity to complete a small research project during the elective. Facility in Spanish is desirable but not essential.

PEDI 3210. Pediatric Inpatient Service - RAHC (Valley Baptist Medical Center - Harlingen). Credit Hours.
The Pediatric Inpatient Service at VBMC-H accepts acutely ill children referred for inpatient care from local pediatricians, the hospital’s emergency department, and pediatricians and hospitals in the larger region served by VBMC-H. All activity will occur on the inpatient unit. The student will function as a subintern with responsibilities for patient assessment and management appropriate to the student’s interests and abilities. In the subintern role, the student will be expected to accept and discharge patient care responsibilities as a member of the ward team under the direct supervision of the faculty preceptor.

PEDI 3425. Community for Children - At the Border and Beyond. Credit Hours.
Community for Children - At the Border and Beyond is a four-week elective rotation in International Children’s Health and Community Pediatrics located in the Lower Rio Grande Valley. The purpose is to educate future physicians to provide compassionate, effective international leadership within community collaborations addressing children’s rights and the social determinants of health in resource-poor communities and to provide opportunities to develop skills necessary for effective advocacy. Curriculum Objectives include: rights of the child; social determinants; clinical care in resource-poor regions; the impact of poverty, immigration and violence; preparing for advocacy; fostering a culture of compassion and professional development through experiences that broaden a physician-in-training’s view of health and illness. Objectives are addressed through didactics provided at the UTHSCSA RAHC; community outreach; advocacy projects; and individualized professional development counseling and goal-setting. The elective also includes individually tailored Spanish classes and fieldwork with promotoras, community leaders, public health officials and families. Advocacy is a large component of this elective. The participants work with community-based organizations on advocacy issues, such as child refugees and immigration, medical-legal interventions for children and their families and migrant health promotion. Participants explore the sources of health, disease and healing and examine models of public health and medical care. Community for Children is not a clinical course, although there are opportunities to participate in patient care in clinics and hospitals, including home visits. CFC directors mentor participants during the rotation and beyond, providing tools and support for professional development.
PEDI 4000. Special Topic. 4 Credit Hours.
This is a self-designed course created by both the student and the department to cover a specific topic. A Course Approval Form must be completed along with documentation of the designed course description.

PEDI 4003. General Pediatrics Selective. 4 Credit Hours.
The goal of the General Pediatrics Selective is to teach medical students the knowledge and skills to understand human growth and development and its clinical application from infancy through adolescence; to take a complete, accurate, and culturally-sensitive history from children and their families; and to perform complete and problem-focused physical examinations of infants, children and adolescents for common acute and chronic pediatric illnesses. Students will communicate effectively in written and oral form with physicians, patient families, and clinic staff; describe the influence of family, community, and society on child health and disease; incorporate strategies for health promotion and injury prevention into patient care; and refer to and coordinate care with sub-specialists and community agencies. Students will interpret common radiologic studies and perform office-based diagnostic tests and minor procedures. Students will interpret common radiologic studies and perform office-based diagnostic tests and minor procedures. Students will be expected to demonstrate professional responsibility in working as a team member with other members of the General Pediatrics team, patients, and families. Students work Monday-Friday with faculty and residents in an academic clinic primarily in the acute care setting.

PEDI 4006. Pediatric Cardiology. 4 Credit Hours.
The goal of the Pediatric Cardiology Selective is to improve the student’s understanding of the pathophysiology and management of pediatric and congenital heart diseases. Clinical skills in cardiac auscultation, EKG interpretation, and chest x-ray interpretation will be emphasized primarily in the outpatient setting. The student will observe noninvasive techniques in diagnosis such as echocardiography and invasive procedures in the cardiac catheterization laboratory. The student will participate in didactic instruction and online materials to improve knowledge and skills. The student is expected to research a cardiology topic during the rotation, and give a presentation on findings to the group at the end of the rotation. Student learning will be further enhanced by participation in weekly multidisciplinary patient management conferences. The student will be expected to demonstrate professional responsibility in working as a team member with other members of the Pediatric Cardiology care team, patients, and families.

PEDI 4009. Pediatric Gastroenterology/Nutrition. 4 Credit Hours.
The goal of the Pediatric Gastroenterology Selective is to increase the knowledge and skills of students in the diagnosis and management of gastrointestinal, liver, and nutritional disorders of children. Clinical teaching activity takes place in the inpatient setting, with opportunities to follow patients in the outpatient setting. The student will actively participate in evaluating and managing patients including observing endoscopy and other procedures if necessary. Required reading and discussion of study material with faculty will be expected. The student will participate in didactic sessions to enhance learning of common diagnoses. The student will be expected to demonstrate professional responsibility in working as a team member with other members of the Pediatric Gastroenterology team, patients, and families.

PEDI 4013. Pediatric Hematology/Oncology. 4 Credit Hours.
The goal of the Pediatric Hematology/Oncology Selective is to develop knowledge and skills in diagnostic evaluation, therapy, and follow-up of hematology/oncology patients. Clinical activities will take place primarily in the outpatient setting. This is an opportunity for experience in blood and bone marrow morphological diagnosis, in techniques for bone marrow aspiration, and in administration of intravenous and intrathecal chemotherapy. The student will work with a multidisciplinary team to meet the complex psychosocial needs of this patient population. The student is expected to demonstrate professional responsibility in working as a team member with other members of the Pediatric Hematology/Oncology team, patients, and families.

PEDI 4015. Pediatric Hematology/Oncology Research. 4 Credit Hours.
Previous experience with introductory adult or pediatric hematology/oncology courses preferred. The student will participate in a clinical or basic investigation project on a topic of interest to the student under the supervision of the medical staff. The research might utilize retrospective information on specific groups of patients treated at the Children’s Cancer Research and Treatment Center, the Hematology Clinic, or the Bone Marrow Transplant Unit; or it may investigate in-depth a particular clinical or basic facet of a disease process.

PEDI 4016. Pediatric Allergy, Immunology, And Infectious Diseases. 4 Credit Hours.
The goal of this Selective is to develop student skills in clinical and laboratory evaluation of hypersensitivity, infection, immunity, and inflammation, and in the management of allergic disease, infectious disease, primary and secondary immune deficiencies, rheumatologic conditions, and associated complicated complications. The scope of infectious diseases typically encountered includes community and hospital acquired infections, including post-surgical infections, infections in cancer and transplant patients, and HIV-infected children. The student will participate in outpatient clinics and inpatient consultations. The student will spend time in the laboratory covering bacteriology, virology, mycology, flow cytometry, and HLA typing. Scheduled conferences include weekly Case Management which will include presentation of patient cases to the faculty and care team. The student is expected to research a pertinent topic during the rotation and give a presentation on findings to the group at the end of the rotation. The student is expected to demonstrate professional responsibility in working as a team member with other members of the Pediatric infectious Disease, Allergy, and Immunology teams, patients, and families.

PEDI 4018. Child Neurology. 4 Credit Hours.
The goal of the Child Neurology Selective is to develop the knowledge and skills to evaluate and manage children with neurologic disorders. The student will distinguish normal from abnormal neurologic development; perform a skillful neurologic history and exam to distinguish normal from abnormal findings, peripheral from central nervous system lesions, and static from progressive neurologic dysfunction; identify temporary vs. chronic progressive neurological dysfunction; and recognize and manage neurological disorders that generally require referral. Students will be able to discuss the indications, side effects, and mode of action of commonly used medications in pediatric neurology; the indications for complex or expensive neurologic testing; and the pediatrician’s role in prevention of neurologic disorders in children. Patient activity is primarily in the outpatient setting, but students will participate in consultations and care of select inpatients. Students are expected to demonstrate professional responsibility in working as a team members of the Pediatric Neurology care team, patient, and families.
**PEDI 4020. Pediatric Endocrinology. 4 Credit Hours.**

The goal of the Pediatric Endocrinology Selective is to develop the knowledge and skills needed to diagnose and manage disorders of thyroid/parathyroid, adrenal/gonad, growth (including hypopituitarism), and carbohydrate metabolism (including diabetes mellitus). Most patient care activity occurs in the outpatient setting with clinics focused on either diabetes (type 1, type 2, medica diabetes) or endocrine issues. Students will explain how to use a glucometer and insulin pump and how to perform growth and puberty stimulation tests. Directed reading is provided, and the patients are reviewed and the pertinent literature discussed at regularly scheduled conferences. Each student will present one interesting case at a weekly Case Conference. Students are expected to demonstrate professional responsibility in working as a team member with other members of the Pediatric Endocrinology team, patients, and families.

**PEDI 4022. Neonatal Research. 4 Credit Hours.**

This rotation is designed for students interested in laboratory or clinical research experience in Perinatal Medicine. The student will work directly under the guidance of a faculty member and be involved in data gathering, chart review, or lab work in the area of research in which the faculty is involved and commensurate with the student’s experience and interests. The selective will provide opportunities for protocol development, literature review, data analysis, and learning through reading and student-faculty interaction. Students must arrange to work with a neonatal faculty member before contacting the department for permission.

**PEDI 4023. Neonatology. 4 Credit Hours.**

The goal of Neonatology Selective is to gain the knowledge and skills needed to evaluate and manage preterm and term infants requiring intensive care. Students will work neonatologists and their staff in the Neonatal Intensive Care Unit and participate as a member of the neonatal response team in attending high-risk deliveries and admitting babies to the NICU. All aspects of the medical and nursing care of the high-risk or fragile newborn will be open to the student for study. The student is expected to function at the level of a sub-intern. The student will also be encouraged to participate in the support and instruction of families and gain understanding of “life beyond the NICU” for these special babies. The preceptor will guide the student in selecting appropriate reading to enhance the experiential component of the selective. The student is expected to demonstrate professional responsibility in working as a team member with other members of the neonatal team, patients and families. Weekend and night call schedules are integrated with those of the pediatric house staff. Students will work 6 days/week with 1 day off. As the 4th weekend is off, this translates to 3 days off during the rotation. These 3 days may be used for interviews; additional days off for interviewing should not be expected.

**PEDI 4027. Pediatric Genetics. 4 Credit Hours.**

The goal of the Pediatric Genetics Selective is to develop student knowledge and skills in diagnosing and developing management plans for children with single gene disorders, chromosome abnormalities, multiple congenital anomalies, metabolic disorders, teratogenic exposures, developmental delay, intellectual disability, and autism. Most patient activity is in the outpatient setting, but students will participate in inpatient consultations. Patient encounters range from 45 minutes to 2 hours in length depending on the patient and the chief concerns. Students will participate in multidisciplinary clinics, including craniofacial anomalies clinic. Training in differential diagnosis includes use of online genetics databases and resources. Students are expected to demonstrate professional responsibility in working as a team member with other members of the Genetics team, patients, and families.

**PEDI 4029. Pediatric Pulmonology. 4 Credit Hours.**

The goal of the Pediatric Pulmonology Selective is to develop the knowledge and skills needed to diagnose and manage common pediatric pulmonary disorders. The emphasis will be on how to obtain pertinent history, the recognition of physical signs of pulmonary diseases, CXR, and blood gas evaluation, and the critical assessment of the data gathered. Students will participate in outpatient pulmonary clinics, including cystic fibrosis and asthma clinics, and will follow pediatric inpatients with pulmonary disorders. The practice of evidence-based medicine will be emphasized. Regularly scheduled didactic sessions will expand on topics encountered in patient care. Students are expected to demonstrate professional responsibility in working as a team member with other members of the Pulmonary team, patients, and families.

**PEDI 4031. Pediatric Nephrology. 4 Credit Hours.**

The goal of the Pediatric Nephrology Selective is to develop skills in diagnosis and management of common renal disorders in children as well as significant participation in the management of dialysis and kidney transplant patients. The student will learn the essential concepts in the pathophysiology and management of fluid and electrolytes and acid base disturbances. Most patient care activity occurs in the outpatient setting, but students will also participate in the management of inpatients. The student will learn histopathology of renal diseases through reviewing biopsies with pathologists. The student is expected to demonstrate professional responsibility in working as a team member with other members of the Renal team, patients, and families.

**PEDI 4036. Pediatric Critical Care. 4 Credit Hours.**

The goal of the Pediatric Critical Care Selective is to develop the skills needed to evaluate and manage critically ill infants and children with medical and surgical diagnoses. The student will actively participate in a multidisciplinary team in the Pediatric Intensive Care Unit. Students will enhance their knowledge and skills in invasive procedures, principles of mechanical ventilation, principles of resuscitation, pharmacology of critical care, and the pathophysiology of these diseases. The student will serve as a sub-intern, participating in daily rounds with the attending pediatric faculty. Directed reading and didactic materials will be provided. The student is expected to demonstrate professional responsibility in working as a team member with other members of the Critical care team, patients, and families.

**PEDI 4039. Child Abuse Pediatrics. 4 Credit Hours.**

The goal of the Child Abuse Pediatric Selective is to increase the student’s awareness that maltreatment is a common cause of many acute, delayed, and chronic physical and mental health conditions. The student will recognize demographic risk factors, but will see child abuse as a medical diagnosis made by the history and physical examination. The student will learn the history and physical exam necessary to evaluate concerns for injury and neglect and document in the correct medico-legal format. The student will learn the reporting mandate, and know how to report to the appropriate agency(s). The student will understand that abuse and neglect have immediate, short term, intermediate term, and long term effects that extends out into adulthood. Most patient care activity occurs in the outpatient setting, but the student may participate in emergency room and inpatient consults. The student will participate in staffing with CPS and other investigators and may have the opportunity to observe court hearings. The student is expected to demonstrate professional responsibility in working as a team member with other members of the Child Abuse Pediatrics team, CPS investigators, patients, and families.
PEDI 4074. AHEC Clinic Experience. 4 Credit Hours.
The goal of the AHEC Clinic Experience Elective are to provide medical students with the knowledge and skills to understand human growth and development and its clinical application from infancy through adolescence; take a complete, accurate, and culturally-sensitive history from children and their families; and perform complete and problem-focused physical examinations of infants, children and adolescents for common acute and chronic pediatric illnesses. The student will interpret common radiologic studies and perform office-based diagnostic tests. Under the auspices of the UTHSCSA AHEC Program, this experience exposes students to the primary care of ambulatory patients at various AHEC clinical training sites in South Texas. Under the direct supervision of a Board Certified General Pediatrician, the student serves as the initial physician in the evaluation and management of a wide array of outpatient problems. This clinical experience may include associated inpatient experience, depending on the patient responsibilities of the physician. The student will be expected to demonstrate professional responsibility in working as a team member with other members of the pediatric team, patient and families. Information about training sites may be found on the AHEC websites: http://www.uthscsa.edu/cstp/index.aspx. Student must first receive permission from the Department of Pediatrics before contacting the AHEC Office (567-7819). Application must be made 6-8 weeks in advance of the date on which you want to start the rotation. Once the rotation is confirmed by the AHEC Office, the student will be given electric permission to go online and register for the course. On or before the first day of the rotation, the student will need to meet with Administrative Associate at the Center of South Texas Programs/AHEC Office (567-7819).

PEDI 4100. Nutrition Readiness For Internship. 0.5 Credit Hours.
This course will consist of four two-hour sessions that cover a variety of clinically oriented discussions and practical points of value to new interns. Topics are modified annually to cater for every year participants’ areas of interest and upcoming internship. Reading material about topics of discussion will be distributed to students to review before the class to insure maximal participation in team based learning style. Topics to be covered: nutritional care of the surgical patient and TPN, nutrition in pregnancy, nutrition in special situations such as brain injury, encephalopathy, renal and liver disease, enteral nutrition and nutritional rehabilitation in growth and intestinal failure in short bowel patients.

PEDI 4201. Community Pediatrics-RAHC. 4 Credit Hours.
The Department of Pediatrics offers this 4-week rotation at the RAHC Division for students interested in the contextual and systemic dimensions of general pediatrics. Goals for this rotation are 1) To experience and gain an understanding of the social, cultural, economic, and family forces which impact the health status of children in the Lower Rio Grande Valley, 2) to experience and gain an understanding of how the financing and organization of the health care system succeeds or fails to deliver optimal care to children and families 3) to experience and gain an understanding of the community roles of the pediatricians- as a member of the health care team and as an advocate for children. Students will work with pediatricians in community practices. In addition to clinical work with patients, students will participate in business meetings of the practices, work with other members of the health care team (such as nurse practitioners, physicians assistants, and social workers), and participate with physicians in their hospital and other agency committee duties. Sites for this rotation will include a variety of pediatric offices, including community health centers and private practices.

PEDI 4204. Pediatric Neurology-RAHC. 4 Credit Hours.
The goal of the Pediatric Neurology Selective is to develop the knowledge and skills to evaluate and manage children with neurologic disorders. The student will distinguish normal from abnormal neurologic development; perform a skillful neurologic history and exam to distinguish normal from abnormal findings, peripheral from central nervous system lesions, and static from progressive neurologic dysfunction; identify temporary vs. chronic progressive neurological dysfunction; and recognize and manage neurological disorders that generally require referral. The student will be able to discuss the indications, side effects, and mode of action of commonly used medications in pediatric neurology; the indications for complex or expensive neurologic testing; and the pediatrician's role in prevention of neurologic disorders in children. The student will work with a pediatric neurologist in the community setting. The student will see patients with the neurologist in the office and visit local hospitals in response to requests for consultation. The preceptor will guide the student in selecting appropriate reading to enhance the experiential component of the selective. The student is expected to demonstrate professional responsibility in working as a team member with other members of the Pediatric Neurology care team, patients, and families. Facility in Spanish is desirable but not essential.

PEDI 4205. Evidence Based Pediatrics-RAHC. 2 Credit Hours.
The student will explore the ways in which the EMB process is used in clinical practice through assigned readings and clinical experience. The student will spend mornings in an ambulatory care practice. From each morning’s clinical experience, the student will identify one or two clinical questions. In the afternoons, the student will work in the medical library to formulate an answerable question, develop a search strategy, locate relevant literature, select a journal article, evaluate the article using EBM formulas, and reach a conclusion about the clinical questions. The preceptor will review the findings with student in clinic the following morning. Culmination of the experience will be a case presentation in an appropriate forum such as a journal club or rounds.

PEDI 4206. Pediatric Cardiology-RAHC. 4 Credit Hours.
The goal of the Pediatric Cardiology Selective is to improve the students understanding of the pathophysiology and management of pediatric and congenital heart diseases. Clinical skills in cardiac auscultation, EKG interpretation, and chest x-ray interpretation, and chest x-ray interpretation will be emphasized primarily in the outpatient setting. The student will observe noninvasive techniques in diagnosis such as echocardiography. The student will work with pediatric cardiologists in the private practice setting. The student will see patients with the cardiologists in their office, and visit local hospitals with them as they respond to requests for consultation. Since many of the cardiac disorders managed in this practice are chronic in nature, the student will learn how children and their families cope with these conditions at home, in school and in the community at large. Preceptors will guide the student in selecting appropriate reading to enhance the experiential component of the selective. The student is expected to demonstrate professional responsibility in working as a team member with other members of the Pediatric Cardiology care team, patients, and families.
PEDI 4207. Neonatology - RAHC. 4 Credit Hours.
The goal of the Neonatology Selective is to gain the knowledge and skills needed to evaluate and manage preterm and term infants. The student will work with neonatologists and their staff in the Neonatal Intensive Care Unit. The student will participate as a member of the neonatal response team in attending high-risk or fragile newborn will be open to the student for study. All aspects of the medical and nursing care of the high-risk or fragile newborn will be open to the student for study. The student will also be encouraged to participate in the support and instruction of families to gain understanding of "life beyond the NICU" for these special babies. The preceptor will guide the student in selecting appropriate reading to enhance the experiential component of the selective. The student is expected to demonstrate professional responsibility in working as a team member with other members of the Neonatal team, patients, and families.

PEDI 4208. Pediatric Critical Care-RAHC. 4 Credit Hours.
The goal of the Pediatric Critical Care Selective is to develop the skills needed to evaluate and manage critically ill infants and children with medical and surgical diagnoses. Students will enhance their knowledge and skills in invasive procedures, principles of mechanical ventilation, principles of resuscitation, pharmacology of critical care and the pathophysiology of these diseases. The student will participate in daily rounds with the attending pediatric faculty. Directed reading and didactic materials will be provided. Students are expected to demonstrate professional responsibility in working as a team member with other members of the critical care team, patients and families.

PEDI 4209. Pediatric Gastroenterology - RAHC. 4 Credit Hours.
The goal of the Pediatric Gastroenterology Selective is to increase the knowledge and skills of students in diagnosis and management of gastrointestinal, liver, and nutritional disorders of children. The student will work with a pediatric gastroenterologist in the community setting. The student will see patients with the gastroenterologist in the office, and visit local hospitals in response to requests for consultation. The gastroenterologist's practice includes a broad array of children with gastrointestinal problems, including digestive and malabsorptive disorders, short-gut syndrome, congenital anomalies, cystic fibrosis, recurrent infections, inflammatory bowel disease, and failure to thrive. The student will gain clinical skills in interviewing, physical assessment, the use and interpretation of imaging studies, and the indications for and interpretation of endoscopic assessments. In addition, the student will learn how the gastroenterologist, as a specialist-consultant, interacts with referring physicians and agencies. Since many of the gastrointestinal disorders are chronic in nature, the student will learn how children and their families cope with these conditions at home, in school, and in the community at large. The preceptor will guide the student in selecting appropriate reading to enhance the experiential component of the elective. The student may have an opportunity to complete a small research project during the elective. The student will demonstrate professional responsibility in working as a team member with other members of the Pediatric Gastroenterology team, patients, and families. Facility in Spanish is desirable but not essential.

PEDI 4210. Pediatric Inpatient Service - RAHC (Valley Baptist Medical Center - Harlingen). 4 Credit Hours.
The goal of the Inpatient Pediatrics Selective is to prepare the student for pediatric inpatient wards during residency by enhancing knowledge of basic inpatient pediatric diseases as well as improving clinical skills such as oral and written case presentation, physical examination, hand-offs, and incorporating evidence-based medicine into clinical practice. The student will function at the level of a sub-intern. All clinical activity occurs on the inpatient unit.

PEDI 4425. Community for Children at the Border and Beyond. 4 Credit Hours.
This is a four-week elective rotation in International Children's Health and Community Pediatrics located in the Lower Rio Grande Valley. The purpose is to educate future physicians to provide compassionate, effective international leadership within community collaborations addressing children's rights and the social determinants of health in resource-poor communities and to provide opportunities to develop skills necessary for effective advocacy. Curriculum objectives include: rights of the child; social determinants; clinical care in resource-poor regions; the impact of poverty; immigration and violence; preparing for advocacy; fostering a culture of compassion and professional development through experiences that broaden a physician-in-training's view of health and illness. Objectives are address through didactics provided at the UTHSCSA RAHC, community outreach, advocacy projects, and individualized professional development counseling and goal setting. The elective also includes individually tailored Spanish classes and fieldwork with promotoras, community leaders, public health officials, and families. Advocacy is a large component of this elective. The participants work with community-based organizations on selected advocacy issues, such as child refugees and immigration, obesity and diabetes among the young, and medical-legal interventions for children and their families. Participants explore the sources of health, disease, and healing and examine models of public health and medical care on both sides of the border. Community for Children is not a clinical course, although there are opportunities to participate in patient care in clinics and hospitals, including home visits. CFC directors mentor participants during the rotation and beyond, providing tools and support for professional development. This elective is a signature program of the UTHSCSA Regional Academic Health Center's Community Medicine Educational Cooperative, in partnership with the UTHSCSA Department of Pediatrics, UT Health Science Center-Houston School of Public Health-Brownsville, Brownsville Community Health Center, Harlingen Pediatrics Associates, Hospital Infantil de Tamaulipas/Ciudad Victoria, Mexico, and Centro de Salud Tamaulipas, Mexico.

PEDI 7000. Off Campus. 4 Credit Hours.
All off campus rotations must be approved by the designated faculty member prior to the beginning of the rotation (at least one week before the course begins). Credit will not be given for any rotation that has not been approved in advance. Required paperwork includes: "Course Approval" form, a written letter or email for acceptance form the physician preceptor with the start and end dates of the course/rotation, and a course description of your learning objectives and responsibilities during the rotation. Forms must include a complete address and telephone number for the off campus location or residence address for the student while at the off campus site. Forms will not be approved after the rotation has already begun. Contact the department for assistance with enrolling in this course.
PERI 7002. Pediatric Developmental Disabilities. 4 Credit Hours.
The goal of the Pediatric Developmental Disabilities Elective is to develop
the knowledge and skills needed to assess and interpret findings of
developmental-behavioral assessments, understand the neurological
and genetic work-up, and become familiar with community resources for
special needs children. The student will have the opportunity to participate
in the developmental, neurological, and genetic evaluation of children with
developmental-behavioral disabilities. Common developmental-behavioral
disabilities encountered in this rotation may include Autism Spectrum
Disorders, Attention-Deficit Hyperactivity Disorder, Global Developmental
Delay, Intellectual Disability (formerly Mental Retardation), Learning
Disabilities, Neural Tube Defects, and Cerebral Palsy. Patient care activity
takes place in the outpatient setting. Students will also participate in key
community site visits. In addition to core didactic sessions, students will
have independent readings that complement their clinical activities. For
electives occurring in June, July and August, the student will spend 1 week
at Camp CAMP (Children’s Association for Maximum Potential), a summer
camp in the Texas Hill Country for children with a variety of disabilities.
(All expenses are paid). Medical Students will be part of a medical team
responsible for daily medical management of a “tribe” of children. The
student must complete paperwork as required by Camp CAMP before
attending.

PEDI 7012. Pediatric Community Preceptorship. 4 Credit Hours.
The goal of the Pediatric Community Preceptorship is to provide medical
students with knowledge and skills to diagnose and manage patients
found in the preceptor’s practice; to understand the social, cultural,
economic, and family forces which impact on the health status of children;
and understand the community roles of the pediatrician, as a member
of the health care team, and as an advocate for children. Students
will actively participate in patient care in the office practice of board-
certified pediatrician preceptors. Preceptorships are available with general
pediatricians or with subspecialists. Preceptorship experience must be
scheduled well in advance and may be 2 or 4 weeks in length, students
must arrange to work with a preceptor before contacting the department
for permission. All preceptors must have an adjunct faculty appointment
with a medical school.

**Periodontics (PERI)**

**Courses**

PERI 5010. Clinical Periodontics 1. 1-10 Credit Hours.
Students have the opportunity to gain clinical experience as they treat
patients in the postdoctoral clinic. Case studies gradually increase in complexity
and severity and include treatment of the medically compromised patient,
implant cases, and interdisciplinary cases.

PERI 5011. Clinical Periodontics 1. 1 Credit Hour.
Students have the opportunity to gain clinical experience as they treat
patients in the postdoctoral clinic. Cases gradually increase in complexity
and severity and include treatment of the medically compromised patient,
implant cases, and interdisciplinary cases.

PERI 5012. Clinical Periodontics 1. 1 Credit Hour.
Students have the opportunity to gain clinical experience as they treat
patients in the postdoctoral clinic. Cases gradually increase in complexity
and severity and include treatment of the medically compromised patient,
implant cases, and interdisciplinary cases.

PERI 5025. Case Presentation Seminar. 0.5 Credit Hours.
The course consists of presentation of clinical cases. Students have the
opportunity to prepare to defend their approaches to therapy and gain
experience in oral presentation of cases.

PERI 5031. Periodontics Lecture Series. 2 Credit Hours.
This course is designed to instruct the student in all aspects of
periodontology. It is meant to be an adjunct to the PERI 6073 Literature
Seminar. Topics dealing with basic science, pathobiology, and clinical and
surgical aspects of periodontal disease will be discussed.

PERI 5037. Bone & Connective Tissue Biology. 0.5 Credit Hours.
This course seeks to apply current principles of bone and periodontal
ligament cell biology to our understanding of the development,
maintenance, and repair of periodontal tissues and to the clinical
management of pathology at the tooth supporting structures. Emphasis
is placed on the basic cell and structural biology which provides the
underlying rationale for current and experimental approaches to
periodontal disease and therapies.

PERI 5052. Surgical Anatomy. 1 Credit Hour.
This course emphasizes the learning of the head and neck anatomy
that is related directly to surgical procedures performed by periodontists
and endodontists and the practice of prosthodontic dentistry. Anatomic
structures related to implant placement receive special emphasis. Surgical
complications related to anatomy are described. A dissection on human
cadavers is presented with a strong emphasis on surgical anatomy.

PERI 5073. Literature Seminars. 1 Credit Hour.
This course is designed to familiarize the student with the historical and
contemporary literature related to periodontics. The first-year course is
concerned mainly with basic science literature while second- and third-
year courses concentrate on the clinical literature. Students have the
opportunity to evaluate the data in the literature, critique experimental
design, abstract articles, critically evaluate research findings, and learn to
use library resources.

PERI 5074. Current Lit Seminar. 1-5 Credit Hours.
Current periodontal literature published during the academic year is
discussed in a seminar format.

PERI 5075. Mock Boards. 0.5 Credit Hours.
This course is a simulation of the exams given by the American Board of
Periodontology. Students present their cases orally, with slides, to faculty
examiners and take an oral examination.

PERI 5081. Periodontics 1. 1.5 Credit Hour.
Freshman Periodontics is the first in a series of required courses designed
to provide the opportunity for the student to learn the knowledge, skills,
and values to manage patients with periodontal diseases. Students will
have the opportunity to learn foundation information related to periodontal
diseases and acquire fundamental periodontal clinical skills used in
evaluating the periodontal status of patients and for performing some
types of periodontal therapy. This course includes classroom discussion
as well as preclinical exercises. Topics covered include features of the
healthy and the diseased periodontium, the diagnosis of all periodontal
diseases, the etiology of periodontal diseases, and clinical decision
making.

PERI 5097. Research. 1-9 Credit Hours.
This course consists of independent, original research under the direction
of a faculty member.

PERI 6001. Periodontic Practice Management. 0.5 Credit Hours.
The objective of this course is to prepare the student for the business
aspects of clinical practice. The student will be exposed to the banking
finances, practical aspects of office management, matters relating to
dental insurance, and the different types of practice.
PERI 6011. Clinical Periodontics 2. 3 Credit Hours.
Students have the opportunity to gain clinical experience as they treat patients in the postdoctoral clinic. Cases gradually increase in complexity and severity and include treatment of the medically compromised patient, implant cases, and interdisciplinary cases.

PERI 6012. Clinical Periodontics 3. 4.5 Credit Hours.
Students have the opportunity to gain clinical experience as they treat patients in the postdoctoral clinic. Cases gradually increase in complexity and severity and include treatment of the medically compromised patient, implant cases, and interdisciplinary cases.

PERI 6020. Emergency Care Seminar. 0.5 Credit Hours.
This is a pragmatic course to familiarize the student with the medical emergencies that the clinician may incur while practicing dentistry. Major texts on the medically compromised patient are used as a guideline. The course is given in seminar format.

PERI 6025. Case Presentation Seminar. 0.5 Credit Hours.
The course consists of presentation of clinical cases. Students have the opportunity to prepare to defend their approaches to therapy and gain experience in oral presentation of cases.

PERI 6030. Periodontic Lecture Series. 2 Credit Hours.
This course is designed to instruct the student in all aspects of periodontology. It is meant to be an adjunct to the PERI 6073 Literature Seminar. Topics dealing with basic science, pathobiology, and clinical and surgical aspects of periodontal disease will be discussed.

PERI 6031. Periodontic Lecture Series. 2 Credit Hours.
This course is designed to instruct the student in all aspects of periodontology. It is meant to be an adjunct to the PERI 6073 Literature Seminar. Topics dealing with basic science, pathobiology, and clinical and surgical aspects of periodontal disease will be discussed.

PERI 6050. Periodontal Medicine. 0.5 Credit Hours.
This course is designed to establish the principles essential for problem-oriented evaluation of the dental patient. The intent is to discuss the diagnosis of selected common orally related primary and secondary mucocutaneous conditions and oral cancer and their management.

PERI 6070. Supervised Teaching. 0.5 Credit Hours.
Graduate students are assigned to the various clinics and classes for the opportunity to acquire experience in teaching pre-doctoral students and faculty members in a variety of situations. Supervision and evaluation of teaching performance are provided by the graduate faculty.

PERI 6071. Supervised Teaching. Credit Hours.
Graduate students are assigned to the various clinics and classes for the opportunity to acquire experience in teaching pre-doctoral students and faculty members in a variety of situations. Supervision and evaluation of teaching performance are provided by the graduate faculty.

PERI 6072. Supervised Teaching. 0.5 Credit Hours.
Graduate students are assigned to the various clinics, laboratories, and classes for the opportunity to acquire experience in teaching undergraduate students in a variety of situations. Supervision and evaluation of teaching performance are provided by the graduate faculty.

PERI 6073. Literature Seminars. 1 Credit Hour.
This course is designed to familiarize the student with the historical and contemporary literature related to periodontics. The first-year course is concerned mainly with basic science literature while second- and third-year courses concentrate on the clinical literature. Students have the opportunity to evaluate the data in the literature, critique experimental design, abstract articles, critically evaluate research findings, and learn to use library resources.

PERI 6074. Current Lit Seminar. 0.5-5 Credit Hours.
Current periodontal literature published during the academic year is discussed in a seminar format.

PERI 6075. Mock Boards. 0.5 Credit Hours.
This course is a simulation of the exams given by the American Board of Periodontology. Students present their cases orally, with slides, to faculty examiners and take an oral examination.

PERI 6082. Periodontics. 2.5 Credit Hours.
Sophomore Periodontics is the second in a series of required courses designed to provide the opportunity for the student to learn the knowledge, skills, and values to manage patients with periodontal diseases. Students will have the opportunity to learn how to plan and to perform nonsurgical or initial periodontal therapy. This course includes classroom discussion as well as preclinical exercises. Topics covered include mechanical and pharmacotherapeutic therapies for patients with periodontal diseases, decision making in planning periodontal therapy, and how to manage periodontal patients in a general practice setting. Course Fees: Microscope $48.

PERI 6097. Research. 1-9 Credit Hours.
This course consists of independent, original research under the direction of a faculty advisor.

PERI 6098. Thesis. 1-9 Credit Hours.
Completion of an acceptable thesis is required for the Master of Science degree. Registration in this course for at least one semester is required of all degree candidates. Prerequisites: admission to candidacy for the Master of Science degree.

PERI 7059. Implantology. 1 Credit Hour.
Through lecture sessions, this introductory course offers students an opportunity to obtain both background and knowledge regarding accepted dental implant systems.

PERI 7081. Periodontics. 1.5 Credit Hour.
This course is an expansion of the foundation presented in the sophomore year. Surgical treatment planning, rationale, techniques, and wound healing are emphasized. A three-hour surgical laboratory exercise is included. Periodontal interrelationships with prosthodontics, endodontics, and orthodontics are examined in case presentation formats with student participation.

PERI 8015. Periodontics. 0.5 Credit Hours.
This lecture course is a comprehensive review of current periodontal topics. Topics include those that should be employed in the diagnosis, treatment planning, and management of periodontal diseases in a general dentistry practice setting. Both non-surgical and surgical treatment approaches will be discussed.

PERI 9011. Clinical Periodontics 1. 2 Credit Hours.
Students have the opportunity to gain clinical experience as they treat patients in the postdoctoral clinic. Cases gradually increase in complexity and severity and include treatment of the medically compromised patient, implant cases, and interdisciplinary cases.

PERI 9012. Clinical Periodontics 2. 4 Credit Hours.
Students have the opportunity to gain clinical experience as they treat patients in the postdoctoral clinic. Cases gradually increase in complexity and severity and include treatment of the medically compromised patient, implant cases, and interdisciplinary cases.

PERI 9013. Clinical Periodontics 3. 5 Credit Hours.
Students have the opportunity to gain clinical experience as they treat patients in the postdoctoral clinic. Cases gradually increase in complexity and severity and include treatment of the medically compromised patient, implant cases, and interdisciplinary cases.
PERI 9014. Clinical Periodontics 4. 1-5 Credit Hours.
Students have the opportunity to gain clinical experience as they treat patients in the postdoctoral clinic. Cases gradually increase in complexity and severity and include treatment of the medically compromised patient, implant cases, and interdisciplinary cases.

PERI 9015. Clinical Periodontics 5. 5 Credit Hours.
Students have the opportunity to gain clinical experience as they treat patients in the postdoctoral clinic. Cases gradually increase in complexity and severity and include treatment of the medically compromised patient, implant cases, and interdisciplinary cases.

PERI 9026. Case Pres/Interdisciplinary Seminar. 1 Credit Hour.
The course consists of presentation of clinical cases. Students have the opportunity to prepare to defend their approaches to therapy and gain experience in oral presentation of cases.

PERI 9031. Advanced Periodontics. 3 Credit Hours.
This course is designed to instruct the student in all aspects of periodontology. Topics dealing with basic science, pathobiology, and clinical and surgical aspects of periodontal disease will be discussed.

PERI 9036. Advanced Clinical Path Conference. 1 Credit Hour.
This course will emphasize clinicopathologic correlations and rationale of differential diagnosis of pathosis directly and/or indirectly affecting contiguous structures. A variety of cases are presented for group discussion of radiographic, clinical and histopathologic findings.

PERI 9040. Principle of IV Conscious Sedation. 0.5 Credit Hours.
This course includes instruction in pharmacology of sedative, narcotic and anticholinergic agents; pre-, intra- and post-operative monitoring of patient blood pressure, pulse, respirations, electrocardiogram, and oxygen saturation; techniques for venipuncture, drug delivery and reinforcement; and management of emergencies. The laboratory portion of the course includes venipuncture techniques, patient monitoring and appropriate documentation. This course is supplemented by daily management of conscious sedation cases in the clinic under direct supervision of credentialled faculty. A sedation record is kept for all patients treated, with a separate file for any adverse reactions noted and managed.

PERI 9051. Anesthesiology. 3 Credit Hours.
Through this off-service rotation, students gain valuable experience in the operating room environment. Emphasis is placed on patient assessment; types of analgesia, sedation and general anesthesia; venipuncture techniques; pharmacologic agents and equipment required for patient induction; management of emergencies, especially maintenance of a patent airway and adequate oxygenation; and applied management. This course is a fundamental foundation for required training in conscious sedation techniques.

PERI 9065. Orthodontics Overview. 1 Credit Hour.
Students will be instructed in the diagnostic and treatment basics of orthodontics, particularly as they relate to case selection and treatment in minor tooth movement orthodontics.

PERI 9069. Supervised Teaching. 1 Credit Hour.
Residents teach Air Force general dentists the didactic and clinical aspects of periodontology through the Periodontics Postgraduate Courses. Lectures are reinforced by clinical demonstrations of diagnostic and treatment procedures.

PERI 9073. Current Literature Seminar. 1 Credit Hour.
Current periodontal literature published during the academic year is discussed in a seminar format.

PERI 9075. Literature Seminar 3. 3 Credit Hours.
This course is designed to familiarize the student with the historical and contemporary literature related to periodontics. The first-year course is concerned mainly with basic science literature while second- and third-year courses concentrate on the clinical literature. Students have the opportunity to evaluate the data in the literature, critique experimental design, abstract articles, critically evaluate research findings, and learn to use library resources.

PERI 9076. Mock Board Exam. 0.5 Credit Hours.
This course is a simulation of the exams given by the American Board of Periodontology. Students present their cases orally, with slides, to faculty examiners and take an oral examination.

PERI 9077. Advanced Cardiac Life Support. 1 Credit Hour.
This course, sponsored by the American Heart Association (AHA), provides an integral component of training in the management of life-threatening medical emergencies. The course is taught in accordance with guidelines developed by the AHA.

PERI 9078. Case Presentation. 1.5 Credit Hour.
The course consists of presentation of clinical cases. Students have the opportunity to prepare to defend their approaches to therapy and gain experience in oral presentation of cases.

PERI 9085. Physical Diagnosis. 1 Credit Hour.
This course familiarizes students with the methods and principles of physical examination, evaluation, diagnosis and hospital protocol. The course provides substantial benefit for training in conscious sedation techniques.

PERI 9086. Temporomandibular Joint Dysfunction. 2.5 Credit Hours.
This course provides a comprehensive review of the TMJ, methods of evaluating orofacial pain, knowledge of the common disorders affecting the joint, and accepted means of treatment. Students learn anatomy of the temporomandibular region, physical and psychological assessment of patients with temporomandibular disorders or orofacial pain, and management of these disorders. This course is supplemented by a clinical rotation in Orofacial Pain Clinic during the fall semester.

PERI 9097. Research. 1 Credit Hour.
The student develops a research protocol and background literature search for a clinical, laboratory, or animal model research project.

PERI 9173. Current Literature Review. 1.5 Credit Hour.
Current periodontal literature published during the academic year is discussed in a seminar format.

Pharmacology (PHAR)

Courses

PHAR 4000. Special Topic. 1-42 Credit Hours.
This is a self-designed course created by both the student and the department to cover a specific topic. A Course Approval Form must be completed along with documentation of the designed course description.

PHAR 4003. Clinical Pharmacology. 4 Credit Hours.
This selective is an essential course in Drug Prescribing and Therapeutics for future interns in any specialty. It is an excellent opportunity to brush up on drug therapy before entering residency and to avoid causing harm to the patients through mis-prescription of drugs. The drugs of the major therapeutic areas and how they are used are reviewed by specialists from the Departments of Medicine, Psychiatry, Surgery, and Pharmacology. Particular emphasis is placed on the use of drugs in clinical scenarios.
PHAR 5001. Pharmacology. 4 Credit Hours.
This course is a study of the general principles of action of drugs used for the treatment and alleviation of symptoms of medical and dental diseases including pharmacodynamics of major drug groups, toxicology, and contemporary prescription writing.

PHAR 5013. Principles Of Pharmacology 1. 3 Credit Hours.
Topics include principles of drug action; receptor classification and quantitation; dose-response relationships; cellular mechanisms of drug action; fundamental concepts of drug-receptor interactions; voltage-gated and ligand-gated ion channels; drug actions mediated by transduction and non-transduction enzymes; time course of drug action; absorption, distribution, biotransformation and elimination of drugs; pharmacokinetics; and experimental approaches to drug action.

PHAR 5014. Therapeutics. 3 Credit Hours.
The overall objective of this course will be to provide students with a current overview of the therapeutics related to major classes of drugs. The course will be required for Pharmacology students as a 3-hour course. Each section will offered separately as a 0.5-hour micro-elective for students from other programs. There will be a course director for the overall course while each section will be governed by a director who will be responsible for the format of the lectures and examinations for that section. Each section will include at least one examination that will determine the overall grade for Pharmacology students taking the 3-hour course. Student performance will be evaluated on a lettered grading scale. Prerequisites: INTD 5000.

PHAR 5020. Basics Of Research Design. 1.5 Credit Hours.
This course aims at teaching first-year graduate students fundamentals of research design and analysis of scientific literature to orient them with setting up scientific experiments and writing grant proposals. The course is divided into three sections: research design, communicating scientific data, and getting scientific ideas funded.

PHAR 5090. Seminar. 1-9 Credit Hours.
This course consists of presentation and discussion of recent advances in research by staff faculty, students, and outside scientists. A monthly journal club that emphasizes student presentations of current primary literature is also a component.

PHAR 5091. Special Topics: Microelectives. 0.5-9 Credit Hours.
Micro-electives are courses that can be of any type (tutorial or original literature review, short [2-week] didactic, technique, etc.). In general, since they are short, they are often offered at any time of convenience between the student(s) and the faculty. Various topics include but not limited to: (1) New Views on Monoaminergic Neurotransmission: Are Transports Important?; (2) Drug Discovery: Nuts and Bolts; (3) Historical Perspectives of Receptor Theory; (4) Cell Membrane Microdomains and Signaling; (5) Neuropeptide Metabolism; (6) Serotonin: From Soup (Transmission) to Nuts (Behavior); (7) Central-Cardio-Respiratory Systems; (8) Neural Substrates of Regulatory Behaviors: Peptides and Monoamines; (9) Current Issues in Basic Research on Mechanisms of Epilepsy; (10) Appetite Control: Adiposity Hormones and Neuropeptides; (11) Fundamentals of Behavioral Pharmacology; (12) Therapeutics: Autonomic Pharmacology; (13) Therapeutics: Cardiovascular-Renal Pharmacology (Prerequisite: PHAR 5091.012); (14) Therapeutics: Central Nervous System Pharmacotherapeutics; (15) Therapeutics: Chemotherapy; (16) Therapeutics: Endocrine Pharmacology; (17) Therapeutics: Pharmacological Management of Pain; and (18) G protein-coupled receptor heteromers.

PHAR 5092. Special Problems In Pharmacology: Research Practicum. 1-9 Credit Hours.
This is a full-semester research experience for the principal investigator to evaluate if a student demonstrates the potential for productive and independent investigation during the summer following the first year. The course concludes with a 15 minute oral presentation given by the student and a written report in a journal style.

PHAR 6020. Molecular & Pharmacological Basis Of Therapeutics. 3 Credit Hours.
This course provides the graduate student with current knowledge of how genetic variants can affect drug response and the potential to optimize drug therapy. Course format will include lectures, discussion of selected literature, individual student presentations, and the opportunity for the development of a mini pharmacogenetic/genomic protocol and consent form to address a clinical/biomedical question mutually agreed upon between course director and students.

PHAR 6025. Molecular Pharmacology. 2 Credit Hours.
This course will be presented in a journal club/paper discussion format and will focus on the molecular aspects of pharmacology, with emphasis on molecular biology, biochemistry, and cell biology of a variety of physiological systems subjected to pharmacological manipulation. The topics to be discussed include molecular mechanisms of drug action, signal transduction and regulation, molecular approaches, and recent advances in areas of molecular pharmacology.

PHAR 6027. Fundamentals Of Neuroethics. 1 Credit Hour.
Recent advances in neuroscience have considerably improved our understanding of brain function. However, the fascinating examination of brain’s mysteries often intersects with the concerns of ethics and public policy. This course aims at presenting and discussing philosophical and scientific perspectives on major bioethical issues pertinent to neuroscience research. Several subjects will be covered in the course, including the effects of pharmacological and surgical interventions on the brain/min binomial, therapy versus enhancement, brain imaging and mental privacy, neurobiology of decision making, consciousness, unconsciousness, and death.

PHAR 6071. Supervised Teaching. 1-9 Credit Hours.
This course provides a mentored teaching experience. The student will be responsible for directing an undergraduate Physiology laboratory course under the guidance of the Physiology faculty. The student will prepare and provide limited lectures addressing background information required to understanding and performing research laboratories, as well as direct undergraduates in performance of these laboratories. Physiology faculty will insure that graduate students are prepared and knowledgeable about the laboratories they will direct. In addition, students will receive training in general pedagogue and specifically, in the performance, conduct, and directing of physiology research and its dissemination. In addition to learning to direct a laboratory course and providing lecture-based information, graduate students will be trained in preparing, administering, and marking laboratory exams.

PHAR 6097. Research. 0.5-9 Credit Hours.
Independent, original research under the direction of a faculty advisor.

PHAR 6098. Thesis. 1-9 Credit Hours.
Registration for at least one term is a Graduate School requirement for all MS candidates.
PHAR 7002. Bridging The Gap From Bench To Bedside: Pharmacology Clinical Practicum. 1 Credit Hour.
Pharmacology is the most basic of the science disciplines to bridge the gap between “bench and bedside.” This micro-e elective will provide students with focused exposure to therapeutics and clinical practice. The course will incorporate case-based, operating room scenarios using human simulator mannequins, with a clinical experience in association with the Department of Anesthesiology. Students must directly contact the course director before registering for this course.

PHAR 7003. Electrophysiology In Neuroscience Research. 1 Credit Hour.
The purpose of this course is to explore the rationale underlying the use of electrophysiological techniques in neuroscience research. Rather than focusing on the technical aspects of electrophysiology, this course will discuss current hot topic manuscripts that utilize different electrophysiological approaches including in vivo (anesthetized and conscious), in vitro, extracellular (single-unit and field potential), intracellular and patch. It is anticipated that at the end of the course students will be more familiar with the area of electrophysiology and able to understand why particular approaches are utilized in neuroscience research and be able to critically review electrophysiological data from manuscripts.

PHAR 7009. Dissertation. 1-9 Credit Hours.
Registration for at least two terms is a Graduate School requirement for all Ph.D. candidates. Prerequisites: admission to candidacy for Doctor of Philosophy degree.

PHAR 8009. Pharmacotherapeutics. 2 Credit Hours.
The emphasis of this course is on understanding the rationale, indications, and contraindications for prescribing pharmacologic agents in dentistry. Consideration of the pharmacologic agents that the patient may be taking at the time of the dental visit is emphasized.

Physical Therapy (PHYT)

Courses

PHYT 5009. Neuroscience 1. 3 Credit Hours.
This course in neuroscience provides the foundation to understand the structure and functions of the developing, mature, and aging nervous system. It covers basic neuroanatomy, neurophysiology, and neuropharmacology. It also applies neuroscience to clinical applications regarding pathology and patient care. Since cultural organization is central to most functional concepts, neuroanatomy is emphasized to facilitate an overall understanding of the nervous system. Morphology is covered first at the cellular level, then regionally. Neurophysiology of cellular processes of nerve cell transmission as well as regional connectivity of pathways devoted to specific neural modalities is covered. Neuropharmacology encompasses the chemical aspects of synaptic transmission at the cellular level, and the regional differences of transmitter pharmacology. Neuropathology is introduced when appropriate to the systems being discussed.

PHYT 5091. Special Topics. 0.5-4 Credit Hours.
This course will be arranged through Department faculty. The course topics vary according to student interest. Semester hours are variable and credit hours will be assessed per topic. The course could be offered any time during the third year (MPT-III), fall or spring.

PHYT 7001. Clinical Foundations 1. 4 Credit Hours.
This course addresses the fundamental concepts of physical therapy practice including basic clinical screening for disease to include systems review, diagnostic procedures, and introductory physical therapy skills. Students are exposed to the components of documentation, basic examination, therapist-to-patient interaction, the disablement process, interdisciplinary management of the patient, and the use of the Guide to Physical Therapy as a management tool. Students also study functional screening techniques, body mechanics, surface anatomy, postural assessment, patient positioning and transfers, locomotion, and the use of assistive devices. The course adds to the foundation for clinical reasoning and clinical decision making. Students have the opportunity to practice fundamental skills involved in patient management.

PHYT 7005. Therapeutic Exercise Science. 4 Credit Hours.
The goal of this course is to introduce the student to the basic principles of therapeutic exercise to different populations. This will be achieved by examining the physiology of exercise and applying the principles of therapeutic exercise to different populations. Emphasis is on the role of exercise to improve function, prevent dysfunction, and promote wellness. The role of complementary medicine and integration of interdisciplinary professionals in the presentation of content is intended to enhance understanding of holistic care for active populations. The effects of exercise on energy metabolism, nutrition, cardiopulmonary function, and the musculoskeletal systems are also emphasized in this course. At the end of this course, students will have had the opportunity to learn to be able to apply training principles to develop an appropriate exercise program.

PHYT 7009. Neuroscience 1. 3 Credit Hours.
This course in neuroscience provides the foundation to understand the structure and functions of the developing, mature, and aging nervous system. It covers basic neuroanatomy, neurophysiology, and neuropharmacology. It also applies neuroscience to clinical applications regarding pathology and patient care. Since cultural organization is central to most functional concepts, neuroanatomy is emphasized to facilitate an overall understanding of the nervous system. Morphology is covered first at the cellular level, then regionally. Neurophysiology of cellular processes of nerve cell transmission as well as regional connectivity of pathways devoted to specific neural modalities is covered. Neuropharmacology encompasses the chemical aspects of synaptic transmission at the cellular level, and the regional differences of transmitter pharmacology. Neuropathology is introduced when appropriate to the systems being discussed.

PHYT 7011. Clinical Foundations 2. 4 Credit Hours.
This course continues to introduce the fundamental concepts of physical therapy practice including basic clinical screening, systems review, and introductory physical therapy skills. The course takes a regional approach to surface anatomy and its radiologic correlates, detailed muscle function with specific muscle testing. Functional outcome measures, palpation, and principles of selected interventions to include soft tissue mas-sage and proprioceptive neuromuscular facilitation (PNF). The course will continue to lay the foundation for clinical reasoning and clinical decision making. The student will be given the opportunity to practice fundamental skills involved in patient management.

PHYT 7012. Movement Science 1. 4 Credit Hours.
This course is a study of joint structure and function, and the mechanical principles underlying the kinematics and kinetics of human motion. Emphasis is placed on the interaction between biomechanical and physiological factors in musculoskeletal function and the implications of kinesiology principles in physical therapy practice.
PHYT 7014. Systematic Reasoning and Scientific Investigation 1. 3 Credit Hours.
This course is designed to develop critical thinking regarding interpretation of research literature. It provides a general introduction to research design, statistical reasoning, and interpretations of the literature. Topics include scientific method, research design, statistical reasoning, development of research questions, issues of measurement, and an overview of parametric and non-parametric statistical techniques. All topics are presented to facilitate understanding of research literature and utilizing evidence for clinical decision-making. The learner will have the opportunity to be able to critically analyze rehabilitation research and begin the process of formulating a critically relevant research question.

PHYT 7017. Cells, Systems, and Disease. 3 Credit Hours.
This course characterizes what happens to the human body during different disease processes. It begins at the cellular and tissue levels and advances to a progressive study of diseases and disorders within different organ systems. It examines the pathological changes of both histological and gross anatomical specimens, as well as the biochemical and physiological changes that occur during different diseases and disorders. It also discusses some aspects of diagnosis and treatment of these disorders. There is an extensive medical vocabulary associated with this course.

PHYT 7018. Pharmacological Principles in Physical Therapy. 2 Credit Hours.
This course provides the foundation for understanding the impact of drugs on patients with conditions encountered in the practice of physical therapy. Basic pharmacological principles are addressed, as well as important precautions and contraindications for physical therapy treatments.

PHYT 7019. Neuroscience 2. 3 Credit Hours.
This course in neuroscience provides further foundation to understand the structures and functions of the developing, mature, and aging nervous system. It covers basic neuroanatomy, neurophysiology, and neuropharmacology. It also applies neuroscience to clinical applications regarding pathology and patient care. Since structural organization is central to most functional concepts, neuroanatomy is emphasized to facilitate an overall understanding of the nervous system. Special emphasis is given to the structures involved in motor control, their functions, and pathologies.

PHYT 7021. Clinical Experience 1. 5 Credit Hours.
Clinical Experiences 1, 2, and 3 are designed for the student to apply knowledge gained in the basic and clinical sciences courses completed in the first 2 years to clinical practice. The student will become proficient in examination, evaluation, and intervention of patients in a variety of physical therapy settings. Students will complete 10 week rotations in each of 3 settings: acute, inpatient neurological, and outpatient orthopedic. However, they may complete these in any order depending on availability of clinical sites.

PHYT 7070. Physical Therapy: A 21st Century Primary Doctoring Profession. 2 Credit Hours.
This course surveys the 21st century health care delivery milieu, and physical therapists’ vital, multifaceted professional roles therein. Students access the ATPA’s official website, and analyze and evaluate ATPA core documents, including the Code of Ethics, Core Values, and Vision 2020, which characterizes physical therapy as a co-equal doctoring discipline within the medical care model, and physical therapists as practitioners of choice for patients with movement dysfunction. Students explore interpersonal communication, patient care documentation, professional comportment and demeanor, differences between novice and expert clinicians, multiculturalism, and the collaborative nature of twenty-first century health care practice, among other introductory topics in health professional education. As part of the course, students also lead discussion of selected articles related to professionalism in PT and take a summative assessment.

PHYT 7071. Evidence-Based Physical Therapy Practice. 2 Credit Hours.
This course will prepare graduate physical therapists to make independent judgments about the validity of clinical research and implement evidence-based practice with emphasis on forming answerable clinical questions, effective literature search strategies, and structured evaluation of the strength and relevance of clinical evidence.

PHYT 7072. Clinical Decision-Making across the Lifespan. 2 Credit Hours.
The purpose of this course is to provide the student with an opportunity to learn about typical human lifespan development with an emphasis on health and wellness with application to the practice of PT. The course focuses on the embryonic development, early infancy, childhood, adolescence, adulthood, older adults, and the oldest old. Opportunities for didactic, clinical and community experiences are integrated into the course to facilitate active learning. Topics include, among others, patient interdisciplinary management, cultural sensitivity, psychological and socioeconomic concerns, community-based resources, and patient/family education regarding health, wellness and fitness.

PHYT 7073. Medical Screening in Physical Therapy. 2 Credit Hours.
This course addresses concepts in probability-based differential diagnosis. It presents the evidence for diagnosis using properties of diagnostic tests such as sensitivity, specificity, likelihood ratios and predictive values. Participants will learn to review the diagnostic literature against evidence-based practice criteria for validity to facilitate appropriate selection of clinical diagnostic tests. The course provides an efficient model to facilitate practice with emphasis on forming answerable clinical questions, effective literature search strategies, and structured evaluation of the strength and relevance of clinical evidence.

PHYT 7074. Pharmacology in Physical Therapy. 2 Credit Hours.
This course overviews the impact of drugs on patients with conditions encountered in the practice of clinical physical therapy. Basic pharmacological principles are addressed, as well as important precautions and contraindications for physical therapy treatments.
PHYT 7075. Diagnostic Imaging for Physical Therapists. 2 Credit Hours.
This course is designed to advance the knowledge of physical therapy students regarding the diagnostic indications for musculoskeletal imaging including evidence-based clinical practice guidelines, the diagnostic utility of musculoskeletal imaging procedures for select pathology, and the risks, benefits and associated health care costs of imaging procedures. The history and current evidence for the use of musculoskeletal imaging procedures by physical therapists will be presented. The basic physics of image acquisition and fundamental concepts of image interpretation for a variety of common imaging procedures are taught with clinically relevant examples. Emphasis is placed on how to successfully integrate musculoskeletal imaging procedures into physical therapist patient/client management.

PHYT 7076. Professional Ethical Decision-Making and Clinical Risk Management. 2 Credit Hours.
This course provides a comprehensive overview of physical therapy ethics and clinical liability risk management. Students define and distinguish moral, ethical and legal duties in practice; analyze the APTA's core values, Code of Ethics and Guide for Professional Conduct; and compare and contrast professional association and state licensing board ethical standards. Students evaluate the similarities and differences among business organizational and professional ethics in diverse practice settings. Classical ethical theories are explored and applied to physical therapy practice. The four foundational biomedical ethical principles of beneficence, maleficence, autonomy and justice are examined and applied to practice. Systematic approaches to resolving ethical problems, issues and dilemmas are developed and synthesized into everyday decision-making processes. Case analysis is applied to salient practice issues, including: delegation and supervision, intra and interdisciplinary relations, managed care, reimbursement, and research integrity, among many other disparate areas of physical therapy practice. Situational ethics exemplars are explored, as well as the modern blending of law and health professional ethics. Opportunities for active involvement in ethical decisions making in practice are examined, including membership on institutional ethics committees and review boards, state licensing boards, APTA's Ethics and Judicial Committee, state and district ethics committees, and university hearing and resolution boards. Disciplinary processes for violations of ethical standards are examined. Each student will reflect on, develop and submit a 2-3 page write-up of a practice-related ethical problem, issue or dilemma. Each will also reflect on his or her ethical decision making style, and submit a pictorial diagram and 1-3 page write up about their personal systematic approach to professional ethical problem-solving. Students also analyze the CNA2006 PT Malpractice Claims Study and evaluate select PT clinical malpractice case exemplars.

PHYT 7077. Business, Marketing, and Reimbursement Practice Issues. 2 Credit Hours.
This course examines current issues and trends in the practical aspects of physical therapy clinical management. Specific topics include: (1) organizational theory, behavior, and culture; (2) leadership and management principles; (3) human resource management issues, including: recruitment, selection, and retention of staff and managerial human resources; leadership; supervision and delegation of PTAs, aides, and other extenders; performance appraisal; training and development activities; compensation issues; management-labor relations; grievance and discipline; work place safety; and employment regulations; (4) health care finance, including clinical budgeting, billing and reimbursement issues; (5) starting and marketing a PT business; and (6) quality and information management.

PHYT 8002. Management of the Patient with Musculoskeletal Dysfunction 1.5 Credit Hours.
Students in this course integrate previously learned skills and knowledge and apply new skills in the examination, evaluation, and intervention of patients across the lifespan with musculoskeletal conditions of the upper quarter, which will include the cervical and thoracic spine and the upper extremity. The course reviews musculoskeletal tissues, the effects of systematic disease on musculoskeletal tissues, the physical therapy exam, and the principles of evidence-based practice. The course then follows a regional approach with attention to the examination and intervention of the cervical/thoracic spine and each joint area in the upper extremity. Students are expected to be knowledgeable and proficient in material from the first-year courses in the areas of patient care skills, anatomy, kinesiology, and therapeutic exercise. The course emphasizes 1) using the best available evidence to examine and treat patients with musculoskeletal complaints in the extremities, 2) critically analyzing the patient’s history and tests and measures to formulate a physical therapy diagnosis and determine the need for further referral, 3) recognizing non-musculoskeletal causes of extremity pain and identifying patients needing further diagnostic studies and referral to a specialty physician, and 4) the interdisciplinary approach to patient management through guest speakers from different medical specialties.

PHYT 8007. Orthotics in Rehabilitation. 1.5 Credit Hour.
The goal of this course is for the student to become proficient in the basic principles and clinical application of orthotic interventions used in the interdisciplinary management of the patient with extremity or spinal disorders across the lifespan. The course addresses the examination of the patient in need of an orthotic device, analyzing the results of the exam, and use of the best available evidence to identify the most efficacious orthotic device to manage or prevent impairment, functional limitation, or disability. Students will have the opportunity to use their critical thinking skills to problem solve case situations and prescribe or fabricate an orthosis most efficacious according to the best available evidence and with consultation from other disciplines.

PHYT 8010. Research In Physical Therapy. 3 Credit Hours.
This course is interactive web-supported learning experience that will provide the graduate physical therapist the opportunity to apply basic principles of research. Students will critique the current literature related to physical therapy practice and provide recommendations to improve the validity and reliability of various experiments presented. The student will be able to apply findings to clinical practice taking into account statistical principles learned. The student will also effectively summarize findings with written critiques.

PHYT 8011. Electrophysical Agents in Rehabilitation. 3 Credit Hours.
This course examines soft tissue massage/mobilization (STM); tissue integrity; inflammation and repair; and principles and application of electrophysical agents in clinical PT, including cryotherapy, heat, interfential, microcurrent, NMES, phonophoresis, Russian and TENS. The course consists of lectures, labs, "passport" self-selected site visits to experience clinical application of STM and EPAs, a midterm written exam, and comprehensive final written and lab exams.
PHYT 8012. Prosthetics in Rehabilitation. 1.5 Credit Hour.
This course is designed to enable the student to become proficient in the principles of examination and intervention for the patient who experiences limb amputation or has congenital limb absence. The course includes the management of wounds and co-morbidities that put one at risk for limb amputation and strategies to identify these patients and prevent limb loss. The student learns the care and prosthetic management of patients in the pre and post-operative stages with limb amputation at different levels. Instructors present strategies to problem solve when presented with patients with other conditions or factors that complicate the patient’s course of rehabilitation. The interdisciplinary management of patients with limb amputation is emphasized through clinical experience with a prosthetist.

PHYT 8013. Management of the Patient With Cardiopulmonary Dysfunction. 3 Credit Hours.
This course provides instruction in the basic science and clinical foundation required for the examination and treatment of disorders of the cardiovascular and pulmonary systems. Emphasis is on interpretation of evaluative results involving cardiovascular and pulmonary pathology and application of specific treatment interventions in developing comprehensive PT management of these classes of pathology. This course includes interdisciplinary presentations and opportunities relevant to evidence-based wellness and fitness programs for the physical therapist functioning as part of the cardiovascular and pulmonary rehabilitation team.

PHYT 8021. Clinical Experience 2. 5 Credit Hours.
Clinical Experiences 1, 2, and 3 are designed for the student to apply knowledge gained in the basic and clinical sciences courses completed in the first two years to clinical practice. The student will become proficient in examination, evaluation, and intervention of patients in a variety of physical therapy settings. Students will complete 10 week rotations in each of 3 settings: acute, inpatient neurological, and outpatient orthopedic. However, they may complete these in any order depending on availability of clinical sites.

PHYT 8022. Professional Issues and Clinical Decision-Making 1. 2 Credit Hours.
This course is designed for the student to assimilate major theories about learning across the lifespan, learning style, teaching techniques, communication in the clinical setting, and communication as a means to develop cultural competence. Emphasis will be on instruction related to clinical practice and critical thinking as well as application to motor learning. A major theme of this course is the development of communication skills to enhance therapist-patient interactions, promote an understanding of learning across the lifespan, and develop cultural competence.

PHYT 8023. Current Issues in Musculoskeletal, Neuro, Cardiopulmonary Physical Therapy & Orthotics & Prosthetics. 3 Credit Hours.
This course is an interactive web-supported learning experience designed for the graduate physical therapist to develop skills necessary to integrate information at the DPT level. This course is divided into content units that reflect the expanded content within the DPT program. The units are portioned based on issues current to physical therapy practice in the content areas of 1) care of the patient with musculoskeletal dysfunction, 2) care of the patient with neurological dysfunction, 3) care of the patient with cardiopulmonary dysfunction and 4) care of the patient with an orthotic or prosthetic device.
PHYT 8108. Management of the Patient with Neuromuscular Dysfunction 2. 5 Credit Hours.
This course is designed to allow the student to develop the skills necessary to perform examination, evaluation, diagnosis, prognosis, and the development of comprehensive treatment plan of care for patients with neuromuscular dysfunction. Emphasis will be on differential diagnosis, screening, examination, and evaluation of function, and on development of intervention programs that lead to improvement in function. Movement dysfunction will be covered across the lifespan for acute and chronic conditions. The topics will be presented from a problem-solving approach that integrates case studies. Current evidence-based research related to the management of the patient with neuromuscular dysfunction will be critically assessed.

PHYT 8112. Management of the Complex Patient. 3 Credit Hours.
This course gives the student the opportunity to practice examination techniques with a systems approach. Screening for conditions requiring referral will be practiced with continued diagnosis, prognosis to include plan of care using the PT Guide to Physical Therapy Practice. The student will generate a case study to be presented to the class.

PHYT 8114. Management of the Patient with Musculoskeletal Dysfunction 2. 5 Credit Hours.
Students in this course integrate previously learned skills and knowledge and apply new skills in the examination, evaluation, and intervention of patients across the lifespan with musculoskeletal conditions of the lumbosacral spine and the lower quarter. The course follows a regional approach with attention to the examination and intervention of the lumbosacral spine, the sacroiliac joint, and each joint of the lower extremity. Students are expected to be knowledgeable and proficient in material from the first-year courses of patient-care skills, kinesiology, and therapeutic exercise. This course emphasizes 1) using the best available evidence to examine and treat patients with spine complaints, and 2) recognizing non-musculoskeletal causes of spinal pain and identifying patients needing further diagnostic studies and referral to a specialty physician.

PHYT 8116. Management of the Patient with Neuromuscular Dysfunction 2. 5 Credit Hours.
This course is a continuation of Management of the Patient with Neuromuscular Dysfunction 1, and is designed to allow the student to continue to develop the skills necessary to perform examination, evaluation, diagnosis, prognosis, and the development of comprehensive intervention plans of care for patients with neuromuscular dysfunction. Emphasis is on differential diagnosis, screening, examination, and evaluation of function, and on development of intervention programs that lead to improvement in function. Movement dysfunction is covered across the lifespan for acute and chronic conditions. Current evidence-based research related to the management of the patient with neuromuscular dysfunction is critically assessed. Management strategies and skills are reinforced by encouraging the students to participate in hands-on pre-clinical experiences, work with area clinicians related to specific diagnoses, and design treatment plans based on case studies with a focus on interdisciplinary practice.

PHYT 8121. Clinical Experience 3. 5 Credit Hours.
Clinical Experiences 1, 2, and 3 are designed for the student to apply knowledge gained in the basic and clinical sciences courses completed in the first 2 years to clinical practice. The student is required to become proficient in examination, evaluation, and intervention of patients in a variety of physical therapy settings. Students are required to complete 10 week rotations in each of 3 settings: acute, inpatient neurological, and outpatient orthopedic. However, they may complete these in any order depending on availability of clinical sites.

PHYT 8122. Professional Issues and Clinical Decision-Making 2. 2 Credit Hours.
This course explores professional issues in physical therapy practice. Topics of emphasis include Vision 2020, professional behaviors, APTA Code of Ethics and Guide to Professional Conduct, and legal standards of behavior for physical therapists. Particular emphasis will be placed on communication and conflict resolution, personality and cultural diversity, stress management, and entry-level physical therapy skill performance. There will also be an interdisciplinary component to the course that will provide students with an overview of ethical issues facing allied health professionals. Topics to be discussed include responsibilities of the health care professional, life and death decisions, patient confidentiality, substance abuse, whistle-blowing, and informed consent. Ethics in research and other critical issues related to health care problems also will be addressed. Collaborative activities and simulated cases will be used to enhance discussion among students.

PHYT 8130. Movement Science 2. 2 Credit Hours.
The course will examine how humans learn and acquire skills, as well as the mechanisms that are used to control skillful movement utilizing integration of concepts from neuroscience and kinesiology. Content will include critical discussion of the various schools of thought on how movement is controlled and learned. Students will have the opportunity to apply the concepts of motor control and motor learning for patients with movement dysfunction. Emphasis will be placed on movement control and motor learning in normal and special populations.

PHYT 8221. Clinical Internship. 2 Credit Hours.
This course is a four-week clinical internship that allows the student to choose an area of interest and refine their physical therapy examination, evaluation, and intervention skills in that setting. Students may choose to gain more experience in one of the three required clinical areas (acute, inpatient neurological, outpatient orthopedic) or pursue a specialty area of interest.

PHYT 8222. Professional Issues and Clinical Decision-Making 3. 1 Credit Hour.
This course gives students the opportunity to prepare for their clinical experiences. Students are required to complete all required certifications and learn to use the clinical evaluation tool (PT MACS). Particular emphasis will be placed on satisfactory passing criteria for skills outlined in the PT MACS, and expected entry-level physical therapy skill performance.

**Physician Assistant (PHAS)**

**Courses**

PHAS 5000. Physician Assistant Policy and Practice. 3 Credit Hours.
This course will provide the student with an overview of the assistant physician profession. The course will provide the student with an opportunity to develop an understanding of the profession to include history, social and policy issues, medical ethics, liability, educational philosophy, certification/licensure requirements, and professional concepts/issues, including a team approach to health care. Discussion will include intellectual honesty and academic and professional conduct.
PHAS 5001. Patient Evaluation 1. 3 Credit Hours.
This course provides the student with an opportunity to develop a theoretical and clinical basis for assessment of the patient. The process, in which a physician assistant utilizes a comprehensive physical, psychosocial, and cultural assessment across the lifespan to gather specific data relevant to common health problems, is demonstrated. Faculty will facilitate laboratory and clinical experiences that will focus on assessment of patients and presentation of findings in a variety of settings.

PHAS 5003. Behavioral Medicine. 3 Credit Hours.
This course provides the student with an opportunity to develop an understanding of human behavior by providing an overview of major behavioral disease processes and differentiation criteria to include disease presentation, physical examination findings, laboratory testing, and therapeutic approaches.

PHAS 5004. Clinical Applications. 4 Credit Hours.
This course provides the student with an opportunity to experience clinical practice and further develop an appreciation for the art and science of medicine as it relates to physician assistant practice. The student will have an opportunity to apply those skills taught in Patient Evaluation I including physical examination, medical history, patient education, documentation, and medical record keeping. Faculty will facilitate laboratory and clinical experience that will focus on assessment of patients and presentation of findings in a variety of settings. Activities will range from observation to participation in patient care. Basic problem solving, group discussion, and literature review will be included.

PHAS 5005. Clinical Applications in Nutrition. 2 Credit Hours.
The student will have the opportunity to develop knowledge of the role of nutrition in healthy and disease states. Emphasis will be on nutrition as a component of patient care and treatment.

PHAS 5033. Clinical Medicine 1. 10 Credit Hours.
This course provides students with all aspects of medical care based on an organ system approach. It will provide students with an opportunity to develop an understanding of human disease states. Instruction will include recognition of disease state through data collection, assessment, management, patient education, and disease prevention. Health disparities will be included. Special topics will include pediatric and geriatric applications. The organ systems to be covered are genetics, dermatology, renal/male reproductive, cardiovascular, respiratory, and hematologic.

PHAS 5034. Clinical Medicine 2. 10 Credit Hours.
This course provides students with all aspects of medical care based on an organ system approach. It will provide students with an opportunity to develop an understanding of human disease states. Instruction will include recognition of disease state through data collection, assessment, management, patient education, and disease prevention. Health disparities will be included. Special topics will include pediatric and geriatric applications. The organ systems to be covered are gastrointestinal, musculoskeletal, neurologic female reproductive, endocrine, and special topics.

PHAS 5043. Physiology in Health and Disease. 4 Credit Hours.
This course shall provide students with the opportunity to develop a knowledge base of human physiology in health and diseased states. Emphasis will be on the pathophysiology of human disease processes. Course content includes organ system physiology and general disease processes of degeneration, inflammation, neoplasia, and changes associated with major tissue/organ diseases.

PHAS 5091. Special Topics. 1-10 Credit Hours.
This special topics or directed study course is a faculty-directed, didactic opportunity for students. Specific course objectives and study plans will be developed based on student needs and faculty decisions. The course may be used for special projects, additional coursework, or remedial education. It may be repeated for credit.

PHAS 6003. Patient Evaluation 2. 1 Credit Hour.
This course provides the student with an opportunity to experience clinical practice and further develop an appreciation for the art and science of medicine as it relates to physician assistant practice. Students will have the opportunity and will be required to see patients in the hospital setting and become more proficient at performing and reporting the complete medical history and physical examination.

PHAS 6004. Preventative Medicine-Community Health. 3 Credit Hours.
The student will have an opportunity to develop an understanding and knowledge of epidemiology and preventive medicine across a number of topics. An introduction to community health, with an emphasis on needs assessment and project development, will be done.

PHAS 6010. Pharmacology 1. 3 Credit Hours.
The student will have an opportunity to develop an understanding and knowledge of the pharmacological basis of therapeutics with special emphasis on the biochemical and physiological functions in disease. Major areas covered include drugs active in the cardiovascular, autonomic, and central nervous systems. General principles of drug action and specific coverage of drugs used in the treatment of bacterial, viral, and parasitic diseases are provided.

PHAS 6011. Problem Based Learning 2. 1 Credit Hour.
This course is a continuation of Problem-Based Learning 1.

PHAS 6013. Scientific Inquiry. 3 Credit Hours.
This course is a general introduction to research design, statistical reasoning, and interpretation of medical/scientific literature. Topics include scientific method, theory, development of research questions, issues of measurement, models of experimental and non-experimental designs, and an overview of parametric and non-parametric statistical techniques. All topics will be in reference to understanding the literature and to evidence for practice decisions. The learner will have an opportunity to critically analyze medical and scientific literature/ research.

PHAS 6014. Pharmacology 2. 3 Credit Hours.
A continuation of Pharmacology 1, the student will have an opportunity to develop an understanding and knowledge of the actions and therapeutic uses of drugs. The topics include principles of pharmacology and pharmacokinetics. Topics will center on drug action, autonomic and cardiovascular pharmacology, neuropharmacology, endocrine pharmacology, GI and respiratory pharmacology, and an introduction to chemotherapy and toxicology. Special topics will include basics in prescription writing.

PHAS 6015. Clinical Skills 2. 2 Credit Hours.
This course is a continuation of Clinical Skills I. Course Fees: Clinical fee $300.00.

PHAS 6016. Problem Based Learning 3. 1 Credit Hour.
This course is a continuation of Problem-Based Learning 1 & 2.
PHAS 6101. Supervised Clinical Practice 1. 4 Credit Hours.
This clinical rotation course is the first in a series of supervised clinical practice opportunities for students who have completed the didactic phase of the Physician Assistant curriculum. This supervised clinical practice experience enables students to meet program expectations and acquire the competencies needed for clinical PA practice. Students will encounter the types of patients essential to preparing them for entry into practice. At a minimum, these experiences will include preventive, emergent, acute and chronic patient encounters. Students will participate in health care across the life span, women’s health, pre-/post and intra-operative care in outpatient, inpatient, emergency and surgical settings.

PHAS 6102. Supervised Clinical Practice 2. 4 Credit Hours.
This clinical rotation course is the second in a series of supervised clinical practice opportunities for students who have completed the didactic phase of the Physician Assistant curriculum. This supervised clinical practice experience enables students to meet program expectations and acquire the competencies needed for clinical PA practice. Students will encounter the types of patients essential to preparing them for entry into practice. At a minimum, these experiences will include preventive, emergent, acute and chronic patient encounters. Students will participate in health care across the life span, women’s health, pre-/post and intra-operative care in outpatient, inpatient, emergency and surgical settings.

PHAS 6103. Supervised Clinical Practice 3. 4 Credit Hours.
This clinical rotation course is the third in a series of supervised clinical practice opportunities for students who have completed the didactic phase of the Physician Assistant curriculum. This supervised clinical practice experience enables students to meet program expectations and acquire the competencies needed for clinical PA practice. Students will encounter the types of patients essential to preparing them for entry into practice. At a minimum, these experiences will include preventive, emergent, acute and chronic patient encounters. Students will participate in health care across the life span, women’s health, pre-/post and intra-operative care in outpatient, inpatient, emergency and surgical settings.

PHAS 6104. Supervised Clinical Practice 4. 4 Credit Hours.
This clinical rotation course is the fourth in a series of supervised clinical practice opportunities for students who have completed the didactic phase of the Physician Assistant curriculum. This supervised clinical practice experience enables students to meet program expectations and acquire the competencies needed for clinical PA practice. Students will encounter the types of patients essential to preparing them for entry into practice. At a minimum, these experiences will include preventive, emergent, acute and chronic patient encounters. Students will participate in health care across the life span, women’s health, pre-/post and intra-operative care in outpatient, inpatient, emergency and surgical settings.

PHAS 6105. Supervised Clinical Practice 5. 4 Credit Hours.
This clinical rotation course is the fifth in a series of supervised clinical practice opportunities for students who have completed the didactic phase of the Physician Assistant curriculum. This supervised clinical practice experience enables students to meet program expectations and acquire the competencies needed for clinical PA practice. Students will encounter the types of patients essential to preparing them for entry into practice. At a minimum, these experiences will include preventive, emergent, acute and chronic patient encounters. Students will participate in health care across the life span, women’s health, pre-/post and intra-operative care in outpatient, inpatient, emergency and surgical settings.

PHAS 6106. Supervised Clinical Practice 6. 4 Credit Hours.
This clinical rotation course is the sixth in a series of supervised clinical practice opportunities for students who have completed the didactic phase of the Physician Assistant curriculum. This supervised clinical practice experience enables students to meet program expectations and acquire the competencies needed for clinical PA practice. Students will encounter the types of patients essential to preparing them for entry into practice. At a minimum, these experiences will include preventive, emergent, acute and chronic patient encounters. Students will participate in health care across the life span, women’s health, pre-/post and intra-operative care in outpatient, inpatient, emergency and surgical settings.

PHAS 6107. Supervised Clinical Practice 7. 4 Credit Hours.
This clinical rotation course is the seventh in a series of supervised clinical practice opportunities for students who have completed the didactic phase of the Physician Assistant curriculum. This supervised clinical practice experience enables students to meet program expectations and acquire the competencies needed for clinical PA practice. Students will encounter the types of patients essential to preparing them for entry into practice. At a minimum, these experiences will include preventive, emergent, acute and chronic patient encounters. Students will participate in health care across the life span, women’s health, pre-/post and intra-operative care in outpatient, inpatient, emergency and surgical settings.

PHAS 6108. Supervised Clinical Practice 8. 4 Credit Hours.
This clinical rotation course is the eighth in a series of supervised clinical practice opportunities for students who have completed the didactic phase of the Physician Assistant curriculum. This supervised clinical practice experience enables students to meet program expectations and acquire the competencies needed for clinical PA practice. Students will encounter the types of patients essential to preparing them for entry into practice. At a minimum, these experiences will include preventive, emergent, acute and chronic patient encounters. Students will participate in health care across the life span, women’s health, pre-/post and intra-operative care in outpatient, inpatient, emergency and surgical settings.

PHAS 6109. Supervised Clinical Practice 9. 4 Credit Hours.
This clinical rotation course is the ninth in a series of supervised clinical practice opportunities for students who have completed the didactic phase of the Physician Assistant curriculum. This supervised clinical practice experience enables students to meet program expectations and acquire the competencies needed for clinical PA practice. Students will encounter the types of patients essential to preparing them for entry into practice. At a minimum, these experiences will include preventive, emergent, acute and chronic patient encounters. Students will participate in health care across the life span, women’s health, pre-/post and intra-operative care in outpatient, inpatient, emergency and surgical settings.

PHAS 6110. Supervised Clinical Practice 10. 4 Credit Hours.
This clinical rotation course is the tenth in a series of supervised clinical practice opportunities for students who have completed the didactic phase of the Physician Assistant curriculum. This supervised clinical practice experience enables students to meet program expectations and acquire the competencies needed for clinical PA practice. Students will encounter the types of patients essential to preparing them for entry into practice. At a minimum, these experiences will include preventive, emergent, acute and chronic patient encounters. Students will participate in health care across the life span, women’s health, pre-/post and intra-operative care in outpatient, inpatient, emergency and surgical settings.
PHAS 6111. Supervised Clinical Practice 11. 4 Credit Hours.
This clinical rotation course is the eleventh in a series of supervised clinical practice opportunities for students who have completed the didactic phase of the Physician Assistant curriculum. This supervised clinical practice experience enables students to meet program expectations and acquire the competencies needed for clinical PA practice. Students will encounter the types of patients essential to preparing them for entry into practice. At a minimum, these experiences will include preventive, emergent, acute and chronic patient encounters. Students will participate in healthcare across the life span, women’s health, pre-/post and intra-operative care in outpatient, inpatient, emergency and surgical settings.

PHAS 6112. Supervised Clinical Practice 12. 4 Credit Hours.
This clinical rotation course is the twelfth in a series of supervised clinical practice opportunities for students who have completed the didactic phase of the Physician Assistant curriculum. This supervised clinical practice experience enables students to meet program expectations and acquire the competencies needed for clinical PA practice. Students will encounter the types of patients essential to preparing them for entry into practice. At a minimum, these experiences will include preventive, emergent, acute and chronic patient encounters. Students will participate in healthcare across the life span, women’s health, pre-/post and intra-operative care in outpatient, inpatient, emergency and surgical settings.

PHAS 6113. Supervised Clinical Practice 13. 6 Credit Hours.
This clinical rotation is the last in a series of supervised clinical practice opportunities for students who have completed the didactic phase of the Physician Assistant curriculum. This supervised clinical practice experience enables students to meet program expectations and acquire the competencies needed for clinical PA practice. Students will encounter the types of patients essential to preparing them for entry into practice. At a minimum, these experiences will include preventive, emergent, acute, and chronic patient encounters. Students will participate in healthcare across the life span, women’s health, pre-/post- and intra-operative care in outpatient, inpatient, emergency, and surgical settings. This six-week clinical practicum is designed to give the student the opportunity to gain additional experience in an area of practice that is aligned with their intended area of concentration. Additional activities during this rotation may include preparation for professional licensing and certification.

Physiology (PHYL)

PHYL Courses

PHYL 3014. Research in Endocrinology of Aging. Credit Hours.
The course consists of student participation in research on glucocorticoid-induced gene expression during aging and food restriction.

PHYL 3016. Ion Channel Research. Credit Hours.
The course includes student participation in ongoing basic research on the molecular mechanisms of signaling pathways acting on ion channels. Techniques may include patch-clamp, electrophysiology, molecular biology and biochemistry.

PHYL 4000. Special Topic. 1-42 Credit Hours.
This is a self-designed course created by both the student and the department to cover a specific topic. A Course Approval Form must be completed along with documentation of the designed course description.

PHYL 4012. Molecular Endocrinology Research. 4 Credit Hours.
The course consists of student participation in research on glucocorticoid-induced gene expression during aging and food restriction.

PHYL 4016. Ion Channel Research. 4 Credit Hours.
The course includes student participation in ongoing basic research on the molecular mechanisms of signaling pathways acting on ion channels. Techniques may include patch-clamp, electrophysiology, molecular biology and biochemistry.

PHYL 5013. Dental Physiology. 6.5 Credit Hours.
Lecture instruction in the basic concepts of cell and organ function and in the integrated function of mammalian organ systems is presented. The physiology of the nervous system is included. (Students may elect to substitute CSBL 5019 - Gross Human Anatomy for Graduate Students for this course.).

PHYL 5017. Discovery Of Physiological Principles 3. 2 Credit Hours.
This course consists of laboratory demonstrations and experiments in areas covered in Organ Systems Physiology 2 and acquisition of skills for analyzing and communicating the results of laboratory research. Prerequisites: concurrent enrollment in PHYL 5025.

PHYL 5025. Organ Systems Physiology 2. 4 Credit Hours.
This course is a continuation of the study, begun in Organ System Physiology 1, of the mechanisms that produce and control the functions of the body’s organ system. Prerequisites: PHYL 5011, PHYL 5014, PHYL 5021, and PHYL 5024.

PHYL 5041. Excitable Membranes. 1 Credit Hour.
This course addresses fundamental mechanisms of cell excitability in neurons and other excitable tissues. The format is a combination of lectures, readings/discussions, laboratory demonstrations, and simulation software (where available). Examples of the latter include software to simulate the resting membrane potential, action potentials, and synaptic events. The module will emphasize contemporary issues in the scientific literature as well as translational science where dysfunction in channels and synapses underlie common disorders such as Alzheimer’s Disease, Myasthenia Gravis, Cystic Fibrosis, Long QT Syndrome, and Epilepsy to name just a few. Students may take the full series but are only required to take three out of the four courses (PHYL 5041, 5042, 5043, and 5044).

PHYL 5042. Cardiovascular Physiology. 1 Credit Hour.
This course explores the physiological mechanisms by which the cardiovascular system carries out its principle function. Mechanisms that produce and regulate cardiac pumping, organ blood flow, capillary fluid and solute exchange, and arterial blood pressure are examined. The nature and importance of various local, neural, and hormonal mechanisms are emphasized. Integrated control of cardiovascular function in situations requiring cardiovascular adjustments (e.g., exercise, blood pressure alterations) are also covered. Students may take the full series but are only required to take three out of the four courses (PHYL 5041, 5042, 5043, and 5044).

PHYL 5043. Respiratory & Renal Physiology. 1 Credit Hour.
This course covers the physiology of respiratory and renal function in the human body. Our focus is on basic mechanisms of function, role in body homeostasis, as well as dysfunction of both systems associated with pulmonary and renal disease. Two sessions are set aside for discussion around significant advances in each field. One or more recently published articles will serve as the focus for each of these discussions sessions. Students may take the full series but are only required to take three out of the four courses (PHYL 5041, 5042, 5043, and 5044).
PHYL 5044. Metabolism/Hormones/GI System. 1 Credit Hour.
The course serves to expose students to the current state of knowledge in the field of endocrinology and metabolism, including reproductive physiology, and the related topics of the physiology of the digestive tract. Three sessions are assigned to advanced topics. In these three sessions students will engage in a discussion format centered around one recent important publication. The lecturer will lead the discussion with the aim of showing how the topics the students have been exposed to integrate one with another, providing the context for present-day discoveries.

PHYL 5045. Mammalian Physiology. 4 Credit Hours.
The course begins with fundamental processes that govern membrane transport, membrane potential, and excitation-contraction coupling. The course then proceeds to coverage of organ system function including cardiovascular, respiratory, renal, gastrointestinal and endocrine/metabolic physiology. Lecture material is enhanced by supplemental discussion of research literature encompassing molecular biology, integrative function, and pathophysiological implications. Students may take the full course but are only required to take three out of the four modules (PHYL 5041, 5042, 5043, and 5044).

PHYL 6071. Supervised Teaching. 1 Credit Hour.
A student enrolled in this course is expected to participate in the teaching program of the Department.

PHYL 6090. Seminar. 1 Credit Hour.
The course is comprised of research presentations by Physiology graduate students. This course is required of all students each semester.

PHYL 6091. Selected Topics Of Physiology. 2 Credit Hours.
Students must take at least two courses selected from among the offerings in: (1) Cardiovascular; (2) Cell Biology in Neural Science; (3) Endocrine and Metabolism; (4) Molecular Physiology; and (5) Ion Channels in Disease. Courses that may be substituted for one of these selections: (1) INTD 5040 - Fundamentals of Neuroscience I: Molecular, Cellular, and Developmental Neuroscience; (2) INTD 5043 - Fundamentals of Neuroscience II: Systems Neuroscience; (3) CSBL 6048 - Biology of Aging; and (4) CSBL 6058 - Neurobiology of Aging. Not all selected topics are offered each semester. Please discuss this with the Academic Coordinator for more details. Substituted courses in conflict with Physiology course schedule will require approval from COGS.

PHYL 6097. Research. 1-9 Credit Hours.
If a track chooses to give a seminar course, the specific course requirements will be determined by the track. The sub-designations for each track are: (1) Biology of Aging; (2) Cancer Biology; (3) Cell & Molecular Biology; (4) Genetics, Genomics & Development; (5) Membrane Biology & Cell Signaling; (6) Metabolism & Metabolic Disorders; (7) Microbiology & Immunology; (8) Molecular Biophysics & Biochemistry; (9) Molecular, Cellular, & Integrative Physiology; (10) Neuroscience; and (11) Pharmacology.

PHYL 6098. Thesis. 1-9 Credit Hours.
Registration for at least one term is required of M.S. candidates. Prerequisite: admission to candidacy for Master of Science degree.

PHYL 6291. Seminar 2. 1 Credit Hour.
Presentation and discussion of recent research advances by outside scientists.

PHYL 7000. Off Campus. 1-42 Credit Hours.
All off campus rotations must be approved by the designated faculty member prior to the beginning of the rotation (at least one week before the course begins). Credit will not be given for any rotation that has not been approved in advance. Required paperwork includes: "Course Approval" form, a written letter or email for acceptance form the physician preceptor with the start and end dates of the course/rotation, and a course description of your learning objectives and responsibilities during the rotation. Forms must include a complete address and telephone number for the off campus location or residence address for the student while at the off campus site. Forms will not be approved after the rotation has already begun. Contact the department for assistance with enrolling in this course.

PHYL 7098. Dissertation. 1-9 Credit Hours.
Registration for at least two terms is required of Ph.D. candidates. Prerequisites: admission to candidacy for the Ph.D. degree.

Prosthodontics (PROS)

Courses

PROS 5015. Concepts Of Occlusion. 1 Credit Hour.
Various concepts of occlusion with special emphasis on the clinical application of gnathology are the focus of this course. The laboratory phase includes the development of a functional occlusion through the cusp-fossa additive wax method and an occlusal equilibration technique.

PROS 5021. Advanced Prosthodontics 1. 1 Credit Hour.
This fall course for first-year advanced prosthodontics students is designed to provide the postdoctoral student with the didactic basis for advanced clinical prosthodontics care.

PROS 5022. Advanced Prosthodontics 1. 1 Credit Hour.
This spring course for first-year advanced prosthodontics students is designed to provide the postdoctoral student with the didactic basis for advanced clinical prosthodontics care.

PROS 5031. Clinical Prosthodontics 1. 2.5 Credit Hours.
This course for first-year advanced prosthodontics students is designed to provide extensive clinical experience in the broad spectrum of prosthodontics as a first course in a progressively complex clinical prosthodontics curriculum. Each student will have the opportunity to maintain a comprehensive prosthodontic practice involving fixed, removable, and implant treatment procedures.

PROS 5032. Clinical Prosthodontics 1. 4 Credit Hours.
This fall course for first-year advanced prosthodontics students is designed to provide extensive clinical experience in the broad spectrum of prosthodontics as a first course in a progressively more complex clinical prosthodontics curriculum. Each student will have the opportunity to maintain a comprehensive prosthodontics practice involving fixed, removable, and implant treatment procedures.

PROS 5033. Clinical Prosthodontics I. 3 Credit Hours.
This spring course for first-year advanced prosthodontics students is designed to provide extensive clinical experience in the broad spectrum of prosthodontics as a second course in a progressively complex clinical prosthodontics curriculum. Each student will have the opportunity to maintain a comprehensive prosthodontics practice involving fixed, removable, and implant treatment procedures.
PROS 5044. OMS/Prosthodontics Seminar 1. 0.5 Credit Hours.
This fall course for first-year prosthodontics students is a seminar devoted to the discussion and coordination of treatment of patients under joint management by Oral & Maxillofacial Surgery and Graduate Prosthodontics.

PROS 5045. OMS/Prosthodontics Seminar 1. 0.5 Credit Hours.
The spring course for first-year prosthodontics students is a seminar devoted to the discussion and coordination of treatment of patients under joint management by Oral & Maxillofacial Surgery and Graduate Prosthodontics.

PROS 5049. Overview of Maxillofacial Pros. 0.5 Credit Hours.
This course introduces the graduate student to the discipline of maxillofacial prosthetics. Emphasis is placed on treating patients requiring prosthetic devices for the head and neck area due to surgery or trauma.

PROS 5050. Dental Implantology. 1 Credit Hour.
This course offers graduate level students an introduction to the basics of the osseointegrated implant surgical and prosthetic technique. Lectures on advanced concepts of osseointegration therapy related to several implant systems are included.

PROS 5053. Advanced Implant Prosthodontics. 1.5 Credit Hour.
The objective of this course is to offer each student an opportunity to obtain background information, knowledge, and skills associated with dental implant treatment modalities.

PROS 5067. Supervised Teaching 1. 1.5 Credit Hour.
This course provides first-year prosthodontic residents the opportunity to teach complete denture laboratory skills to predoctoral students under the supervision of experienced prosthodontic educators.

PROS 5068. Supervised Teaching 1. 2 Credit Hours.
This course provides first-year prosthodontic residents the opportunity to teach complete denture laboratory skills to predoctoral students under the supervision of experienced prosthodontic educators.

PROS 5072. Literature Review Seminar 1. 1 Credit Hour.
This fall course for first-year prosthodontics students is the first of six courses given in a three-year continuum of classical literature review seminars. The broad field of prosthodontics literature is systematically reviewed with the objective of providing the postdoctoral student with a background of prosthodontic knowledge and history.

PROS 5073. Literature Review Seminar 1. 1 Credit Hour.
This spring course for first-year prosthodontics students is the second of six courses given in a three-year continuum of classical literature review seminars. The broad field of prosthodontics literature is systematically reviewed with the objective of providing the postdoctoral student with a background of prosthodontic knowledge and history.

PROS 5095. Research. 1 Credit Hour.
This summer course for advanced prosthodontics students is the first of three in the first year designed to offer opportunity to review the literature and to design and complete a laboratory or clinical research project under the direction of a faculty advisor. Research should result in a paper by certificate students suitable for publication in a peer-rated journal. Students in the masters programs will be expected to collect and analyze data for a thesis that must be defended as the culmination of research efforts.

PROS 5096. Research. 1 Credit Hour.
This summer course for advanced prosthodontics students is the second of three in the first year designed to offer opportunity to review the literature and to design and complete a laboratory or clinical research project under the direction of a faculty advisor. Research should result in a paper by certificate students suitable for publication in a peer-rated journal. Students in the master’s degree programs will be expected to collect and analyze data for a thesis that must be defended as the culmination of research efforts.

PROS 5097. Research 1. 1-9 Credit Hours.
This course offers the student an opportunity to review the literature and to design and complete a laboratory or clinical research project under the direction of a faculty advisor. Research should result in a paper by certificate students suitable for publication in a peer-rated journal. Students in the master’s programs will be expected to collect and analyze data for a thesis which must be defended as the culmination of research efforts.

PROS 6011. Prosthodontic Treatment For The Dentate/Partially Dentate Patient. 2.5 Credit Hours.
A laboratory course with exercises that include steps involved in the fabrication of crowns and short span, fixed partial dentures. Major emphasis is placed on restoration design and clinically related phases of restoration planning and construction. Projects include coverage of the metal ceramic technique, use of conventional Type III dental gold alloy, and development of natural-looking tooth contours with restorative material systems. Principles of tooth preparation and restoration design are applied to the fabrication of single crown and multiple abutment restorations. The lab fee is included in the general laboratory fee.

PROS 6012. Preclinical Prosthodontics Treatment for the Dentate/Partially Dentate Patient. 2 Credit Hours.
This course introduces the graduate student to the discipline of prosthodontics. This course is designed to provide the basic concepts and principles of fixed prosthodontics, involving single and multiple restorations; the rationale and methodology for full and partial veneer preparations; and the fabrication of restorations and the restoration of endodontically treated teeth.

PROS 6018. Prosthodontic Treatment for the Edentulous Patient. 1 Credit Hour.
An introduction to the diagnostic, treatment, and maintenance phases in the rehabilitation of an edentulous patient is presented. Lecture topics include biomechanics of the edentulous state, clinical examinations and diagnosis, edentulous impressions, maxillomandibular relations, denture esthetics, denture occlusion, initial placement of complete dentures, and post-placement care and maintenance of an edentulous patient.

PROS 6019. Preclinical Prosthodontics Treatment for the Edentulous Patient. 2 Credit Hours.
A preclinical laboratory course introducing, demonstrating, and exercises in the laboratory phases of the fabrication and repair of complete dentures is presented. Students will be expected to reach the proficiency level required to satisfactorily perform the laboratory and clinical tasks assigned in subsequent courses and to assess those procedures generally performed by dental laboratory technicians. The lab fee is included in the general laboratory fee.

PROS 6022. Advanced Prosthodontics 2. 1 Credit Hour.
This fall continuation course for second-year advanced prosthodontic students is designed to provide the postdoctoral student with the didactic basis for advanced clinical prosthodontic care.
PROS 6023. Advanced Prosthodontics II. 1.5 Credit Hour.
This spring continuation course for second-year advanced prosthodontics students is designed to provide the postdoctoral student with the didactic basis for advanced clinical prosthodontic care.

PROS 6030. Clinical Prosthodontics 2. 4 Credit Hours.
This summer course for second-year advanced prosthodontics students is designed to provide extensive clinical experience in the broad spectrum of prosthodontics as a fourth clinical course in a progressively complex clinical prosthodontic curriculum. Each student will have the opportunity to maintain a comprehensive prosthodontic practice involving fixed, removable, and implant treatment procedures.

PROS 6031. Clinical Prosthodontics 2. 4.5 Credit Hours.
This fall course for second-year advanced prosthodontics students is designed to provide extensive clinical experience in the broad spectrum of prosthodontics as a fifth clinical course in a progressively complex clinical prosthodontic curriculum. Each student will have the opportunity to maintain a comprehensive prosthodontic practice involving fixed, removable, and implant treatment procedures.

PROS 6032. Clinical Prosthodontics 2. 4.5 Credit Hours.
This spring course for advanced prosthodontics students is designed to provide extensive clinical experience in the broad spectrum of prosthodontics as a course in a progressively more complex clinical prosthodontic curriculum. Each student will have the opportunity to maintain a comprehensive prosthodontic practice involving fixed, removable, and implant treatment procedures.

PROS 6033. Clinical Prosthodontics 3. 4 Credit Hours.
This spring course for second-year advanced prosthodontics students is designed to provide extensive clinical experience in the broad spectrum of prosthodontics as a fifth clinical course in a progressively more complex clinical prosthodontic curriculum. Each student will have the opportunity to maintain a comprehensive prosthodontic practice involving fixed, removable, and implant treatment procedures.

PROS 6034. Clinical Prosthodontics 3. 2.5 Credit Hours.
This fall course for advanced prosthodontics students is designed to provide extensive clinical experience in the broad spectrum of prosthodontics in a progressively more complex clinical prosthodontics curriculum. Each student will have the opportunity to maintain a comprehensive prosthodontic practice of fixed, removable, and maxillofacial prosthodontics patients.

PROS 6035. Clinical Prosthodontics 3. 3.5 Credit Hours.
This spring course for advanced prosthodontics students is designed to provide extensive clinical experience in the broad spectrum of prosthodontics in a progressively more complex clinical prosthodontics curriculum. Each student will have the opportunity to maintain a comprehensive prosthodontic practice of fixed, removable, implant, and maxillofacial prosthodontics patients.

PROS 6036. Maxillofacial Prosthodontics. 1 Credit Hour.
This clinical course provides the opportunity to experience treating patients on the Maxillofacial Prosthetics Service. Patients with congenital and acquired defects are treated under the supervision of the maxillofacial prosthodontics faculty.

PROS 6037. Clinical Prosthodontics. 2 Credit Hours.
This clinical course for Perio-Pros residents in their 3rd and 5th years is designed to provide complex clinical treatment experiences that integrate skills from both specialties. Each student will have the opportunity to maintain a comprehensive integrated Perio-Pros practice.

PROS 6043. Geriatric Dentistry. 0.5 Credit Hours.
This objective of this course is to provide the clinical and didactic background necessary to address the limitations geriatric patients pose for prosthodontics specialty level diagnosis, planning and treatment.

PROS 6046. OMS/Prosthodontics Seminar 2. 0.5 Credit Hours.
This fall semester course for second-year advanced prosthodontics students is the third in a continuum of seminar courses devoted to the discussion and coordination of treatments of patients under joint management of the Oral and Maxillofacial Surgery and Prosthodontics programs.

PROS 6047. OMS/Prosthodontics Seminar 2. 0.5 Credit Hours.
This spring semester course for second-year advanced prosthodontics students is the fourth in a continuum of seminar courses devoted to the discussion and coordination of treatments of patients under joint management of the Oral and Maxillofacial Surgery and Prosthodontics programs.

PROS 6048. Oral & Maxillofacial Surgery and Prosthodontics Seminar 3. 0.5 Credit Hours.
This fall semester course for third and subsequent year advanced prosthodontics students is a continuation of seminar courses devoted to the discussion and coordination of treatments of patients under joint management of the Oral & Maxillofacial Surgery and Prosthodontics programs.

PROS 6049. Oral & Maxillofacial Surgery and Prosthodontics Seminar 3. 0.5 Credit Hours.
This spring semester course for second-year advanced prosthodontics students is a continuation of seminar courses devoted to the discussion and coordination of treatments of patients under joint management of the Oral & Maxillofacial Surgery and Prosthodontics programs.

PROS 6058. Implant Prosthodontic Treatment Preclinical. 1 Credit Hour.
This is a preclinical participation course providing instruction and exercises in many phases relating to implant dentistry. Participation in this preclinical laboratory will provide the student with experience in planning implant therapy, placing implants, making implant impressions, fabricating provisional restorations, and performing other implant-related procedures.

PROS 6059. Implant Pros Treatment Lecture. 0.5 Credit Hours.
A lecture series designed to orient sophomore dental students to the overall clinical issues inherent to implant dentistry. Lecture topics include the biology and biomaterials of dental implants, patient selection and treatment planning, restorative potential of dental implants, nomenclature and components of implant systems, prosthetic and surgical considerations for implant placement, and implant maintenance.

PROS 6069. Supervised Teaching 2. 2 Credit Hours.
This fall course is the first of two second-year advanced prosthodontics courses that provide students with the opportunity to teach fixed prosthodontic laboratory skills to predoctoral students under the supervision of experienced prosthodontic educators.

PROS 6070. Supervised Teaching 2. 2 Credit Hours.
This spring course is the second of two second-year advanced prosthodontics courses that provide students with the opportunity to teach fixed prosthodontic laboratory skills to predoctoral students under the supervision of experienced prosthodontic educators.
PROS 6071. Supervised Teaching 3. 2 Credit Hours.
This course is the first of two third-year advanced prosthodontics courses that provide students with the opportunity to teach prosthodontic clinical skills to predoctoral students under the supervision of experienced prosthodontic educators.

PROS 6072. Supervised Teaching 3. 2 Credit Hours.
This course is the second of two third-year advanced prosthodontics courses that provide students with the opportunity to teach prosthodontic skills to predoctoral students under the supervision of experienced prosthodontic educators.

PROS 6073. Literature Review Seminar 2. 1 Credit Hour.
This fall course for second-year advanced prosthodontics students is the third of six courses given in a three-year continuum of classical literature review seminars.

PROS 6074. Literature Review Seminar 2. 1 Credit Hour.
This spring course for second-year advanced prosthodontics students is the fourth of six courses given in a three-year continuum of classical literature review seminars.

PROS 6075. Literature Review Seminar 3. 1 Credit Hour.
This fall course for third-year advanced prosthodontics students is the fifth of six courses given in a three-year continuum of classical literature review seminars.

PROS 6076. Literature Review Seminar 3. 1 Credit Hour.
This fall course for third-year advanced prosthodontics students is the sixth of six courses given in a three-year continuum of classical literature review seminars.

PROS 6092. Research 2. 2 Credit Hours.
This summer course for advanced prosthodontics students is the first of three research courses in the second year. It is designed to offer an opportunity to review the literature and to design and complete a laboratory or clinical research project under the direction of a faculty advisor. Research should result in a paper suitable for publication in a peer-rated journal. Students in the master’s programs will be expected to collect and analyze data for a thesis which must be defended as the culmination of research efforts.

PROS 6093. Research 2. 2 Credit Hours.
This summer course for advanced prosthodontics students is the first of three research courses in the second year. It is designed to offer an opportunity to review the literature and to design and complete a laboratory or clinical research project under the direction of a faculty advisor. Research should result in a paper suitable for publication in a peer-rated journal. Students in the master’s programs will be expected to collect and analyze data for a thesis which must be defended as the culmination of research efforts.

PROS 6094. Removable Prosthodontics for the Partially Edentulous Patient. 2 Credit Hours.
A preclinical lecture course stressing the association of biological and mechanical principles in planning and constructing removable partial dentures. Emphasis is placed on establishing a proper working relationship with commercial dental laboratories.

PROS 6095. Preclinic Removable Partial Lab. 1 Credit Hour.
Exercises associated with the lecture course including diagnosis, treatment planning, survey and design, and the construction technique of removable partial dentures are presented. Lab fee included in general laboratory fee.

PROS 6096. Research 3. 2 Credit Hours.
This fall course for advanced prosthodontic students is the second of three research courses in the 3rd year. It is designed to offer an opportunity to review the literature and to design and complete a laboratory or clinical research project under the direction of a faculty advisor. Research should result in a paper by certificate students suitable for publication in a peer-rated journal. Students in the masters programs will be expected to collect and analyze data for a thesis which must be defended as the culmination of research efforts.

PROS 6097. Research 3. 2 Credit Hours.
This course for third-year students in advanced prosthodontics is offered in the fall only for M.S. Prosthodontic degree students and in both the fall and spring for certificate students who matriculated in 2011. It is designed to offer an opportunity to review the literature and design and complete a laboratory or clinical research project under the direction of a faculty advisor. Certificate program research should result in a paper suitable for publication in a peer-rated journal or a scholarly presentation at an approved specialty venue.

PROS 6098. Thesis. 1-9 Credit Hours.
Completion of an acceptable paper is required for the Master of Science in Prosthodontics degree. Registration in this course for at least one semester is required of all degree candidates. Admission to candidacy for the Master of Science degree is required in order to enroll in this course.

PROS 6121. Advanced Prosthodontics 3. 1 Credit Hour.
This fall continuum course provides an open forum for a wide variety of faculty and guest consultants on topics of special interest to the specialty of prosthodontics.

PROS 6122. Advanced Prosthodontics 3. 1 Credit Hour.
This spring continuum course provides an open forum for a wide variety of faculty and guest consultants on topics of special interest to the specialty of prosthodontics.

PROS 7018. Fixed Prosthodontics Clinic. 4.5 Credit Hours.
This clinical course consists of diagnosis and treatment planning, instruction in making complete and partial veneer crown preparations and modifications, management of supportive tissues, provision of adequate pain control for restorative procedures, fabrication and insertion of provisional as well as cast restorations, and instruction to patients in the care and maintenance of restorations.

PROS 7019. Fixed Prosthodontics Clinic. 4.5 Credit Hours.
This clinical course consists of diagnosis and treatment planning, instruction in making complete and partial veneer crown preparations and modifications, management of supportive tissues, provision of adequate pain control for restorative procedures, fabrication and insertion of provisional as well as cast restorations, and instruction to patients in the care and maintenance of restorations.

PROS 7091. Removable Partial Denture Prosthodontics Lecture. 0.5 Credit Hours.
This didactic course is designed to acquaint the student with a variety of approaches that may be used in treating the partially edentulous mouth. Lectures cover critical steps in treatment of the partially edentulous patient, stabilization of periodontically weakened teeth, intracoronoral and other attachments used in partial denture construction, swinglock partial dentures, removable partial overdentures, and cancer therapy as it relates to prosthodontic treatment.

PROS 7092. Removable Partial Dentures Clinic. 1.5 Credit Hour.
A clinical experience designed to place continued emphasis on diagnosis, treatment planning, design principles, mouth preparation, and dental laboratory coordination. The student is given the opportunity to correlate biological and mechanical information in clinical care of patients requiring removable partial dentures. The student is required to complete treatment for one partial denture patient during the junior year.
PROS 7095. Complete Dentures Lecture. 1 Credit Hour.
This course offers a series of lectures designed to present more sophisticated concepts in the prosthodontic treatment of edentulous and partially edentulous patients not included in previous courses. Lecture topics include preparation of the tissues for dentures, complete denture esthetics, occlusal systems for complete dentures, single complete dentures, immediate dentures, overdentures, maintenance care for the complete denture patient, and relining of dentures.

PROS 7099. Complete Dentures Clinic. 2.5 Credit Hours.
This clinical course consists of diagnosis and treatment planning, management of supportive tissues, fabrication and placement of complete dentures, and instruction to patients in the care and maintenance of complete dentures. The clinical experiences encourage students to correlate biological and biomechanical information into the prosthodontic treatment of edentulous and partially edentulous patients.

PROS 8001. Dental Implantology. 0.5 Credit Hours.
This course is designed to be an ever-evolving lecture series designed to provide senior dental students with more information regarding advanced topics in implant dentistry. The premise of this course is to provide evidenced-based materials regarding the latest information and current topic of interest in the field of implant dentistry. Lecture topics may include but are not limited to advanced treatment planning, immediate provisionalization (Non-loaded) of dental implants, the controversy of connecting an implant to a natural tooth, implant esthetics, advanced prosthodontic techniques, and implant and the maxillofacial patient.

PROS 9021. Adv Prosthodontics 2. 5 Credit Hours.
This continuation course for second-year advanced prosthodontic students is designed to provide the postdoctoral student with the didactic basis for advanced clinical prosthodontic care.

PROS 9022. Advanced Prosthodontics 2. 5 Credit Hours.
This continuation course for second-year advanced prosthodontic students is designed to provide the postdoctoral student with the didactic basis for advanced clinical prosthodontic care.

PROS 9023. Advanced Prosthodontics 2. 5 Credit Hours.
This continuation course for second-year advanced prosthodontic students is designed to provide the postdoctoral student with the didactic basis for advanced clinical prosthodontic care.

PROS 9024. Adv Prosthodontics 3. 5 Credit Hours.
This course is designed to provide the postdoctoral student with the opportunity to gain the prerequisite background and clinical experience in prosthodontic procedures. Fixed, removable, and overdenture concepts and treatment procedures will be emphasized.

PROS 9029. Clinical Prosthodontics 2. 4.5 Credit Hours.
This fall course for second-year advanced prosthodontic students is designed to provide extensive clinical experience in the broad spectrum of prosthodontics as a fifth clinical course in a progressively complex clinical prosthodontic curriculum. Each student will have the opportunity to maintain a comprehensive prosthodontic practice involving fixed, removable, and implant treatment procedures.

PROS 9030. Clinical Prosthodontics 2. 2 Credit Hours.
This summer course for second-year advanced prosthodontics students is designed to provide extensive clinical experience in the broad spectrum of prosthodontics as a fourth clinical course in a progressively complex clinical prosthodontic curriculum. Each student will have the opportunity to maintain a comprehensive prosthodontic practice involving fixed, removable, and implant treatment procedures.

PROS 9031. Clinical Prosthodontics 1. 6 Credit Hours.
This course provides instruction in the laboratory procedures and clinical aspects of complete dentures, removable partial dentures, fixed, and implant prosthodontics. Residents are required to understand laboratory techniques and dental materials and to perform all phases of laboratory support related to clinical prosthodontics.

PROS 9032. Clinical Pros 1. 2 Credit Hours.
This spring course for advanced prosthodontic students is designed to provide extensive clinical experience in the broad spectrum of prosthodontics as a sixth clinical course in a progressively complex clinical prosthodontic curriculum. Each student will have the opportunity to maintain a comprehensive prosthodontic practice involving fixed, removable, and implant treatment procedures.

PROS 9040. Hosp Maxillofacial Rotation. 1.5 Credit Hour.
Rotation in the Maxillofacial Prosthetics Department gives residents clinical exposure to geriatric and maxillofacial patients. 3rd year residents provide treatment for a patient requiring an obturator prosthesis. Residents with special interest in maxillofacial prosthetics may have the opportunity to treat additional maxillofacial patients that require other various prostheses.

PROS 9073. Literature Seminar 1. 3 Credit Hours.
This course for second-year advanced prosthodontics students is one of a series of courses given in a three-year continuum of classical literature review seminars.

PROS 9074. Literature Seminar 2. 3 Credit Hours.
This course for second-year advanced prosthodontics students is one of a series of courses given in a three-year continuum of classical literature review seminars.

PROS 9075. Literature Seminar 2. 3 Credit Hours.
This course for second-year advanced prosthodontics students is one of a series of courses given in a three-year continuum of classical literature review seminars.

PROS 9076. Literature Seminar 3. 3 Credit Hours.
The broad field of prosthodontics literature is systematically reviewed with the objective of providing the postdoctoral student with a background of prosthodontics knowledge and history.

PROS 9077. Literature Seminar 3. 3 Credit Hours.
The broad field of prosthodontics literature is systematically reviewed with the objective of providing the postdoctoral student with a background of prosthodontics knowledge and history.

PROS 9097. Research. 1-9 Credit Hours.
The student develops a research protocol and background literature search for a clinical, laboratory, or animal model research project.
Psychiatry (PSYC)

Courses

PSYC 3001. Clinical Psychiatry. Credit Hours.
This third-year medical student inpatient rotation is designed as a bridge between the role of third-year clerk and the very active, responsible role of the intern. The third-year medical student will act as the primary psychiatrist under the supervision of a full-time attending. The student will be an integral member of the team, and will participate in all team activities. All activities for this experience will be on an inpatient psychiatric service at the University Hospital, Veterans Administration Hospital, both in San Antonio or in the Rio Grande State Center in Harlingen. These are busy units with brief lengths of stay. The student will have the opportunity to gain considerable experience with crisis management of serious mental illness as well as an understanding of acute exacerbations of chronic mental illness. These are busy units with brief lengths of stay. The student will gain considerable experience with crisis management of serious mental illness as well as an understanding of acute exacerbations of chronic mental illness. At any given time, a student will care for 3-5 patients. They will evaluate up to 2-4 new patients per week.

PSYC 3005. Psychiatry Clerkship. 7 Credit Hours.
The psychiatric clinical clerkship is designed to familiarize the student with the personality traits, illnesses, and emotional disturbances that affect health and productivity. It is an opportunity for the student to develop and strengthen clinical skills in interviewing patients, formulating treatment plans, and carrying out treatment with patients who have psychiatric illness. The clerkship is arranged so the student may select the assignment area on the basis of particular interest, i.e., an inpatient/ outpatient setting. The student’s role in the clerkship is arranged to allow for considerable experience in the working relationship between patient and “physician” in the treatment process. Seminars have been developed to allow the student an in-depth appreciation of the various psychiatric states and emotional problems that affect the general practice of medicine. The student-staff ratio allows for small groups of students to meet with faculty, thereby enhancing learning. The clerkship is an opportunity for the students to look at their personal feelings and values and understand how they influence patient care, to learn how to deal with psychiatric disease, and to become more comfortable in dealing with the personalities of patients with organic disease. Prerequisites: Successful completion of all required preclinical courses is prerequisite to enrollment in any of the clinical clerkships.

PSYC 3019. Psychiatric Emergency Service. Credit Hours.
The psychiatric emergency service rotation at University Hospital is designed to further the training of the medical student by emphasizing systems of care and how these impact the patient in crisis. The student will be actively incorporated into the faculty-lead multidisciplinary team. The University Hospital Psychiatric Emergency Service (PES) is a busy unit that provides emergent evaluations to approximately 300 patients per month. The patient population is diverse in age, ethnicity, and presenting diagnoses. Approximately 30% of the patients are brought in by peace officers for involuntary evaluation. In addition, the PES provides consultative service to the medical emergency center. Students will evaluate approximately 3-4 new patients per day, and may be involved in discussions and treatment planning for patients evaluated by other team members.

PSYC 3020. Consultation Psychiatry. Credit Hours.
The course includes participation in the evaluation and management of medical and surgical in patients with psychiatric problems at the University Hospital. Common psychiatric clinical cases encountered include delirium secondary to general medical conditions, depression, anxiety secondary to medical conditions such as cancer, substance dependence, and patients who have recently committed acts of self harm including toxic ingestion, gunshot wounds, carbon monoxide poisoning, and lacerations. Students may elect to take this course at University Hospital, Audie Murphy VA Hospital, or Valley Baptist Hospital in Brownsville, Texas.

PSYC 3023. Child & Adolescent Psychiatry. Credit Hours.
Students choosing an ambulatory path will be assigned to the Child Guidance Center, Christus Santa Rosa outpatient child psychiatry clinics, and the Bexar County Juvenile Detention. Students choosing the inpatient path will be assigned to Southwest Mental Health Center and/ or the San Antonio State Hospital child and adolescent unit. Students may also enroll in this course as a combination elective and scheduling will be adjusted to match the needs of the student.

PSYC 4000. Special Topic. 4 Credit Hours.
This is a self-designed course created by both the student and the department to cover a specific topic. A Course Approval Form must be completed along with documentation of the designed course description.

PSYC 4001. Clinical Psychiatry. 4 Credit Hours.
The fourth-year medical student inpatient rotation is designed as a bridge between the role of third-year clerk and the very active, responsible role of the intern. The fourth-year medical student will act as the primary psychiatrist under the supervision of a full-time attending. The student will be an integral member of the team, and will participate in all team activities. All activities for this experience will be on an inpatient psychiatric service at the University Hospital, Veterans’ Administration Hospital, both in San Antonio or the Rio Grande State Center in Harlingen. These are busy units with brief lengths of stay. The student will have the opportunity to gain considerable experience with crisis management of serious mental illness as well as an understanding of acute exacerbations of chronic mental illness.

PSYC 4008. Clinical Biological Psych Research. 4 Credit Hours.
The course includes participation in clinical research into biochemical disturbances in mood disorders, mechanism of drug actions, and clinical testing of experimental drugs in depression, ADHD, schizophrenia, and anxiety.
PSYC 4015. Neuropsychiatry - VA Hosp. 4 Credit Hours.
This rotation will introduce students to an appreciation of the correlation between brain dysfunction and behavior disorders. Students will have the opportunity to learn how to clinically evaluate patients for cognitive dysfunction and perform a behavioral neurological exam. The appropriate use of structural and functional brain imaging studies will be emphasized. Students will also be required to participate in the management of patients with neuropsychiatric disorders.

PSYC 4019. Psychiatric Emergency Service (PES). 4 Credit Hours.
The fourth-year medical student psychiatric emergency service rotation at University Hospital is designed to further the training of the medical student by emphasizing systems of care and how these impact the patient in crisis. The student will be actively incorporated into the faculty-lead multidisciplinary team. The University Hospital Psychiatric Emergency Service (PES) is a busy unit that provides emergent evaluations to approximately 300 patients per month. The patient population is diverse in age, ethnicity, and presenting diagnoses. Approximately 30% of the patients are brought in by peace officers for involuntary evaluation. In addition, the PES provides consultative service to the medical emergency center.

PSYC 4020. Consultation-Liaison. 4 Credit Hours.
The course includes participation in the evaluation and management of medical and surgical inpatients with psychiatric problems at the University Hospitals.

PSYC 4022. Psychotic Disorders. 4 Credit Hours.
Rotation focuses on research. It may include assessment, planning of care, diagnosis, treatment and evaluation of care of patients in research protocols; experience with behavioral ratings for psychosis, counseling of families and theories regarding schizophrenic etiology and treatment. Rotation sites will vary (but all located within the San Antonio area) and students will be required to travel from one site to another on their own. Given the inherent characteristics of research, daily rotation schedules may change frequently.

PSYC 4023. Child & Adolescent Psychiatry. 4 Credit Hours.
To gain clinical experience in both inpatient and outpatient child/adolescent psychiatry, the student will attend the Child Guidance Center and Christus Santa Rosa Children’s Hospital outpatient psychiatry clinics. Some half-days are spent at the Southwest Mental Health Center working with children and adolescent inpatients. The student will also rotate one half-day a week at the Bexar County Juvenile Detention Center and attend seminars with the child and adolescent psychiatry residents. Experiences may be adjusted to fit students’ individual interests.

PSYC 7000. Off Campus. 4 Credit Hours.
All off campus rotations must be approved by the designated faculty member prior to the beginning of the rotation (at least one week before the course begins). Credit will not be given for any rotation that has not been approved in advance. Required paperwork includes: “Course Approval” form, a written letter or email for acceptance form the physician preceptor with the start and end dates of the course/rotation, and a course description of your learning objectives and responsibilities during the rotation. Forms must include a complete address and telephone number for the off campus location or residence address for the student while at the off campus site. Forms will not be approved after the rotation has already begun. Contact the department for assistance with enrolling in this course.

Radiation Oncology (RADO)

Courses

RADO 4000. Special Topic. 4 Credit Hours.
This is a self-designed course created by both the student and the department to cover a specific topic. A Course Approval Form must be completed along with documentation of the designed course description.

RADO 4003. Clinical Radiation Medicine. 4 Credit Hours.
Participation in daily operations at the Cancer Therapy and Research Center includes treatment planning conferences, simulation, computer planning, applied physics, treatment setups, etc. Assistance is provided in consultations, follow-up clinics, and inter-departmental activities and ongoing projects. Emphasis is on radiation oncology. Responsibility is given according to capability and interest.

RADO 7000. Radiation Oncology Off-Campus. 4 Credit Hours.
All off campus rotations must be approved by the designated faculty member prior to the beginning of the rotation (at least one week before the course begins). Credit will not be given for any rotation that has not been approved in advance. Required paperwork includes: “Course Approval” form, a written letter or email for acceptance form the physician preceptor with the start and end dates of the course/rotation, and a course description of your learning objectives and responsibilities during the rotation. Forms must include a complete address and telephone number for the off campus location or residence address for the student while at the off campus site. Forms will not be approved after the rotation has already begun. Contact the department for assistance with enrolling in this course.

Radiology (RADI)

Courses

RADI 3001. General Diagnostic Radiology. Credit Hours.
The primary goals of the course are directed toward introducing the student to the different diagnostic imaging modalities available and teaching the student to select the appropriate radiologic examinations for different clinical problems. Students will receive a working knowledge of diagnostic radiology through lectures, individual projects, reading assignments, participation in subspecialty rotations, teaching conferences, and study of the American College of Radiology teaching file.

RADI 3003. Radiation Oncology. Credit Hours.
Students will participate in daily operations at the Cancer Therapy and Research Center. This includes treatment planning conferences, simulation, computer planning, applied physics, treatment setups, etc. Assistance is provided in consultations, follow-up clinics, and inter-departmental activities and ongoing projects. Emphasis on radiation oncology. Responsibility given according to capability and interest of student.

RADI 4001. General Diagnostic Radiology. 4 Credit Hours.
This course is designed as an introduction to diagnostic radiology. The primary goals of the course are directed toward introducing the student to the different diagnostic imaging modalities available and teaching the student to select the appropriate radiologic examinations for different clinical problems. Students will have the opportunity to receive a working knowledge of diagnostic radiology through lectures, individual projects, reading assignments, participation in subspecialty rotations, teaching conferences, and study of the American College of Radiology teaching file.
RADI 4006. Pediatric Radiology. 4 Credit Hours.
By being with the pediatric radiologist on a one-on-one basis through most of the working day, the student will have the opportunity to gain some insight as to the radiologist’s role as a clinician, consultant, and teacher; and acquire some knowledge of general pediatrics, neonatology, urology, orthopaedics, and other specialties. The student may attend Diagnostic Radiology Lectures.

RADI 4007. Review Of Radiology for the Intern. 0.5 Credit Hours.
This is a refresher course in Clinical Diagnostic Radiology. In a large group format, a Radiology faculty member will review with the participants the basics of evaluating the chest X-ray, chest CT, abdominal CT, spinal, head, and pediatric cases. In addition, time will be spent on reviewing the appropriate studies to order for the work-up of various clinical scenarios.

RADI 4020. Mammography- A Multidisciplinary Approach. 4 Credit Hours.
This elective is intended to educate students in the subject of mammography with a multidisciplinary approach. Students will be allowed to spend 2 days each week in medical oncology, surgical oncology, or radiation therapy. Students will primarily be assigned to the mammography section of radiology, learning what criteria are used to detect breast cancer and participating in the work-up of lesions and witnessing biopsies. In addition, they will attend tumor board once a week that is multidisciplinary one day per week will set aside for library student and the students will be asked to research a topic or participate in a project regarding mammography. We intend that this elective will thoroughly educate those who are interested in mammography and help them understand how our specialty is integrated with many other disciplines.

RADI 4202. General Diagnostic Radiology. 4 Credit Hours.
By being with the pediatric radiologist on a one-on-one basis through most of the working day, the student will have the opportunity to gain some insight as to the radiologist’s role as a clinician, consultant, and teacher; and acquire some knowledge of general pediatrics, neonatology, urology, orthopaedics, and other specialties. The student may attend Diagnostic Radiology Lectures.

RADI 5001. Basic Radiation Safety In Laboratory. 1 Credit Hour.
This course provides the student with the opportunity to gain a conceptual understanding of the radiation protection principles involved in the research, diagnostic, and therapeutic uses of radiation sources. This course will cover the safe receipt, use, storage, and disposal of radiation sources in the biomedical research setting. The contents of this course fulfill HSC training requirements in order to use radioactive materials on campus. Successful participants will earn three HSC safety certificates of completion: Basic Radiation Safety Training, Basic Laser Safety Training, and Basic Laboratory Safety Training.

RADI 5005. Fundamentals Of Radiation Dosimetry. 3 Credit Hours.
This course is a detailed study of the fundamentals of radiation dosimetry in general rather than dealing only with its application in medical and health physics. Coverage includes charged particle and photon interactions with matter, the relationship between interactions and absorbed dose, cavity theory, ion chamber design and theory, and calibration techniques using ion chambers.

RADI 5007. Statistics in the Radiological Sciences. 2 Credit Hours.
An overview of biomedical statistics methods and basic applications to experimental design with special emphasis given to those methods used in radiation detection, image analysis, and evaluations of diagnostic efficacy. Students will learn the theory behind these methods and apply them to actual and simulated problems in the Radiological Sciences using the R statistical programming environment.

RADI 5010. Medical Biophysics. 3 Credit Hours.
This course is an introduction to the basic principles of biophysics as applied to medicine and biology. Emphasis will be placed on non-imaging topics of medical biophysics such as mechanics, thermodynamics, diffusion, electrical conduction, biomagnetism, and light spectroscopy.

RADI 5011. Radiation And Nuclear Physics. 3 Credit Hours.
This course reviews nuclear structure, interactions of radiation with matter, and the statistical nature of radiation. The course covers gas, scintillation, and solid-state detector technologies and their applications, including spectroscopy.

RADI 5015. Physics Of Diagnostic Imaging 1. 3 Credit Hours.
This course introduces the student to the basic principles and radiological practice using noninvasive imaging systems. Topics include production of x-rays, interaction of radiation with matter, and the physics of imaging used for computed tomography, ultrasound, and magnetic resonance. Prerequisites: consent of instructor.

RADI 5018. Physics Measurements In Imaging Lab. 2 Credit Hours.
This is a laboratory course focusing on performance of measurements used in quality assurance (QA), system characterization, and acceptance testing of medical imagers. Prerequisites: concurrent enrollment in RADI 5015.

RADI 5020. Principles of Health Physics 1. 3 Credit Hours.
This course covers the basic principles of protection dealing with the major forms of ionizing radiation.

RADI 5025. Molecular Oncology & Radiobiology. 1-5 Credit Hours.
This course is an overview of the physics and chemistry of radiation biology; the biological effects of ionizing and non-ionizing radiations and hyperthermia at the cellular and tissue levels and whole body and late effects.

RADI 5030. Neuroscience Imaging Laboratory. 1 Credit Hour.
Students are assigned to rotate in 6 laboratories at the RIC: MRI, PET, TMS, ERP, animal imaging, and optical imaging. In each lab, students will have the opportunity for hands-on experience on subject preparation, data acquisition, and processing.

RADI 5050. Human Neuroelectrophysiology. 3 Credit Hours.
A detailed study of the electrophysiological basis of human behavior, with an emphasis on event-related brain potentials associated with cognitive function, perception, and action. See instructor for prerequisite coursework.

RADI 5090. Sem Radiological Science. 1-9 Credit Hours.
Each student is required to register a minimum of two terms if following an M.S. degree plan or four terms if following a Ph.D. plan. Seminars will review current findings in the field.

RADI 6012. Phys Nuclear Medi Imaging. 3 Credit Hours.
This course is a study of physical principles of planar, SPECT, and PET radionuclide imaging; instrument theory; dosimetry; computer uses; and safety considerations. Prerequisites: RADI 5011.

RADI 6014. Physics Of Dental Imaging. 2 Credit Hours.
This course is a survey of imaging procedures used in modern dentistry with an emphasis on the clinical objectives and physical principles underlying intraoral, panoramic, cephalometric, and digital dental radiography. Prerequisites: consent of instructor.
RADI 6016. Physics of Diagnostic Imaging. 2. 3 Credit Hours.
This course includes theory and applications of various forms of electronic imaging systems; advanced diagnostic imaging principles involving mathematical image analysis, digital image processing, digital image display, and concepts of electronic imaging. Prerequisites: consent of instructor.

RADI 6017. Neuroimaging Methods. 3 Credit Hours.
This course will deal extensively with several noninvasive brain imaging techniques to study the functional organization of the human and animal brains. Methods covered include positron-emission tomography (PET), event-related potentials, magneto-encephalography, optical imaging, voltage and calcium imaging, autoradiography, as well as transcranial magnetic stimulation. The course will only touch upon anatomical and functional MRI as well as high field MRI, as students will receive exhaustive MRI training from other classes. Course format will include both lectures on the several methods and seminars in which recent technical advances in the field are discussed. Prerequisites: consent of instructor.

RADI 6018. Foundations Of Neuroscience Imaging. 3 Credit Hours.
This course will deal extensively with several noninvasive brain imaging techniques. Examples of such topics include strategies to study the functional and/or anatomical organization of the human brain and paradigms used for studying a variety of brain functions. Students interested in functional MRI as well as DTI will have an opportunity to gain extensive knowledge and experience.

RADI 6019. Pulse Sequence Programming For MRI. 3 Credit Hours.
This course is an introduction to the basic principles of image processing as applied to digital radiography, computed tomography, ultrasound imaging, and magnetic resonance images. Prerequisites: RADI 6016.

RADI 6020. Advanced Topics In Cognitive Neuroscience. 3 Credit Hours.
This course will explore several advanced topics in cognitive neuroscience. It includes exhaustive study of a brain function in normal and in disease states. Brain functions include but are not limited to sensation, perception, action, language, motion, and cognition.

RADI 6021. Prin/Health Physics. 2. 3 Credit Hours.

RADI 6023. Introduction To Clinical Medical Physics Practice. 1-9 Credit Hours.
This course allows students to observe professional medical physicists in a clinical setting and learn the roles of various other medical professionals in the Radiology and Radiation Oncology medical clinic. Students participate in simple tasks related to medical physics data and are shown how to evaluate data to provide reports and tables. Students are also trained in basic safety and ethical issues in clinical medicine and the professional conduct of the medical physicist, following the guidelines established in AAPM Report 109. This material is intended to cover ethical issues in clinical medicine and in the professional conduct of the medical physicist. The term ethics is used here in the sense of a permissible standard of conduct for members of profession. While different people may have different opinions of what is ethical professions always have certain ethical standards or codes of conduct that are compiled in written form and are generally by practitioners. In addition to becoming familiar with written codes of conduct, the student shall be introduced to commonly encountered situations in which a choice of actions is available, some of which would be considered unethical and some of which be considered ethical, according to current standards of care of practice. These would include more specific issues that arise with respect to recent patient privacy concerns and legislation specific to the Health Insurance Portability and Accountability Act (HIPAA) and compliance both in clinical practice and research. A case-based approach in a seminar setting with class participation is utilized. This allows the student to put him or herself in the place of an individual who faces an ethical dilemma and to explore variations of the case that is presented. Other faculty members are also encouraged to attend, to offer comments, and to relate situations that they encountered either first- or secondhand.

RADI 6024. Radiological Anatomy & Physiology. 3 Credit Hours.
This course will provide students with an opportunity to learn anatomy, physiology, and commonly used medical terminology as it relates to radiologic imaging. Anatomic and physiologic features will be illustrated with radiologic images in formats commonly encountered in clinical radiology. By the end of the course, students are expected to be familiar with basic medical terminology and have a good understanding of medical anatomy, physiology, and some basic pathology as related to specific organs for which radiologic images are commonly applied.

RADI 6030. Physics Of Radiotherapy. 3 Credit Hours.
Theory, design, and operation of radiation-producing equipment used in radiation therapy are introduced. Exposure and absorbed dose calculations, patient dosimetry, treatment planning, and use of computers in radiation therapy are covered.

RADI 6031. Physics Measurements In Radiotherapy. 3 Credit Hours.
Performance of measurements on radiation therapy equipment used to determine therapy treatment parameters is the opportunity for study in this course.

RADI 6033. Advanced Radiotherapy Physics. 3 Credit Hours.
This course includes the coverage of advanced radiation therapy special topics: intensity modulated radiation therapy, advanced brachytherapy, and radiation therapy shielding.
RADI 6035. Physics Measurements In Radiotherapy 2. 3 Credit Hours.
In this course students will have the opportunity to gain further didactic and hands-on familiarity with radiation therapy measurement equipment (ion chambers, films, TLDs, water tanks, profilers, etc.) and learn daily clinical practices. Students will have the opportunity to learn the roles of a radiation oncology team, the generation of radiation therapy treatment plans, patient quality assurance, and advanced, specialized radiation therapy techniques. Learning can be accomplished through attendance of didactic lectures, homework assignments, presentations of class projects, and a comprehensive oral exam. Prerequisites: RADI 5005, RADI 6030, and RADI 6031.

RADI 6042. Non-Ionizing Radiation Biology. 1-9 Credit Hours.
This course is an overview of the biological and known or potential health effects of non-ionizing radiation, with attention to radio frequency radiation in the microwave range, extremely low frequency (ELF) field exposures, LASER emissions, and ultraviolet (UV) light exposure.

RADI 6049. Intro To Magnetic Resonance. 2 Credit Hours.
This course presents the basics of the practice of magnetic resonance as the experimentalist or clinician first meets them. The approach begins with images, equipment, and scanning protocols. The student will have the opportunity to face issues pertinent to practice with theoretical background added as experience grows. Through this approach, key ideas are introduced in an intuitive style that is faithful to the underlying physics.

RADI 6050. Magnetic Resonance Imaging. 2 Credit Hours.
This course explores the physics of magnetic resonance image formation through discussion of imaging problems, reviews of current research topics with an emphasis on quantitative methods using MRI, and hands-on experience in MRI laboratories. Prerequisites: RADI 6049.

RADI 6051. Statistical Parametric Mapping. 3 Credit Hours.
Course content includes principles of NMR Spectroscopy as applied to the resolution of molecular structural problems in chemistry, biology, and medicine; and principles and methods for designing BOLD contrast MRI experiments and evaluating fMRI data.

RADI 6060. Biophotonics and Optical Imaging. 3 Credit Hours.
Optical methodologies for imaging, diagnosis, and therapy are rapidly advancing in biology and medicine. This course will review basic elements of optics and optical sources, especially lasers and light-emitting solid state devices, in the context of biomedical applications. Dosimetry, tissue optics, and the principles of laser-tissue interaction will be considered in depth. Current medical uses of lasers will be surveyed, along with their scientific and technical foundations. The course will conclude with several case studies of research areas that are currently hot topics in biomedical optics.

RADI 6062. Cognitive Neuroscience. 3 Credit Hours.
Cognitive Neuroscience deals with the neural basis of cognition and behavior, including considerations of perception, attention, motor control, language, learning, memory, executive function, spatial cognition, emotion, and social cognition. It also presents discussions on neurocognitive development and the evolution of the human brain. Unlike courses in basic neuroscience, this course has a more human focus, presenting in-depth discussions of neuroimaging techniques and literature. In addition, it focuses on psychological models of cognitive function derived from psychological experimentation, human lesion studies, and computational modeling. Cognitive Neuroscience presents an integrated view of the psychology and neurobiology of human cognition and behavior. By the end of the semester, students will have had the opportunity to: (1) become highly familiar with the structure of the human nervous system; (2) become conversant about the physical basis and limitations of neuroimaging techniques; (3) become familiar with the principal brain areas thought to be involved in a host of human cognitive competencies and behaviors, including perception, action, emotion, and language; and (4) understand how psychological theory and neural theory come together to form the foundation of cognitive neuroscience.

RADI 6071. Supervised Teaching. 1-9 Credit Hours.
This course is a presentation of lectures and supervised teaching under the direction of faculty.

RADI 6091. Special Topics. 1-9 Credit Hours.
This course covers topics of special interest which may include emerging and new modalities in radiological sciences relating to x-ray, nuclear, or magnetic imaging.

RADI 6097. Research. 1-9 Credit Hours.
This course is supervised research under the guidance of a faculty member.

RADI 6098. Thesis. 1-9 Credit Hours.
Registration for at least two terms is required for M.S. candidates. Prerequisites: admission to candidacy for the Master of Science degree.

RADI 7005. Treatment Planning Techniques In Radiation Therapy. 3 Credit Hours.
The goal of the course is to provide an overview of the physics and clinical elements that contribute to the development of computerized treatment plans in radiation therapy. The commissioning and acceptance testing of a planning system will be discussed and demonstrated in several planning platforms. Anatomy specific treatment planning will be described, including imaging of the specific disease, as well as contouring and plan development. Multiple plans will be generated for each site using different planning modalities, such as 2D, 3D, and IMRT.

RADI 7010. Motor Learning And Brain Imaging. 3 Credit Hours.
This course is designed for the advanced student (doctoral or postdoctoral) to obtain a comprehensive overview of the field of motor learning from behavioral and brain imaging perspectives. Topic coverage will include general motor learning and speech motor learning (with reference to treatment of motor speech disorders). The course will be structured in a seminar format. The course will explore measurement methods and issues in motor learning and the neural substrates of learning in intact and disordered subject groups.

RADI 7099. Dissertation. 1-9 Credit Hours.
Registration for at least one term is required for Ph.D. candidates. Prerequisites: admission to candidacy for Doctor of Philosophy degree.
Rehabilitation Medicine (REHB)

Courses

REHB 3001. Clinical Rehabilitation Medicine. Credit Hours.
This course is especially recommended for students planning to specialize in Family Practice, Neurology, Neurosurgery, Orthopaedics, Internal Medicine, or Rheumatology. The student will have the opportunity to participate in patient-care activities and limited exposure to electrodiagnostic procedures under the direct supervision of faculty and residents. The student will have exposure to Rehabilitation Medicine from an outpatient and consultative perspective and is required to attend teaching conferences, lectures, rounds, etc. (University Hospital and/or VA Hospital). No late drops will be accepted.

REHB 3002. Introduction to Inpatient Rehabilitation. Credit Hours.
This course is especially recommended for students planning to specialize in Family Practice, Neurology, Neurosurgery, Orthopaedics, Plastic Surgery, ENT, Internal Medicine or Rheumatology. The course will provide in-depth exposure to inpatient rehabilitation and the major rehabilitation areas. The course will include experience in diagnosis and comprehensive rehabilitation management of inpatients with strokes, spinal cord injuries, neurologic disorders, rheumatoid arthritis, amputations, chronic pain, and other major disabling conditions. The student must attend teaching conferences, lectures, and rounds. This selective will be tailored to specific student interest. Comprehensive work-ups and close follow-up of patients will be required (University Hospital). No late drops will be accepted.

REHB 3003. Introduction To Pediatric Rehabilitation. Credit Hours.
This course is especially recommended for students planning to specialize in Pediatrics or Family Medicine. The course includes inpatient and outpatient experience emphasizing comprehensive team rehabilitation of children with spina bifida, childhood spinal cord injury, cerebral palsy, brain damage in childhood, juvenile rheumatoid arthritis, and other chronic disabling diseases of childhood and adolescence. The student must participate in patient care under supervision of faculty and residents and attend teaching conferences. This course includes exposure to adults with congenital conditions and mental retardation (Christus Santa Rosa Children’s Hospital and University Hospital). No late drops will be accepted.

REHB 3005. Combined Rehabilitation. Credit Hours.
The course is required for students planning to specialize in Physical Medicine and Rehabilitation and recommended for those desiring a broad Rehabilitation Medicine exposure. The course will provide an overview of the specialty of PM&R allowing faculty/resident-supervised participation in patient care activities related to Rehabilitation Medicine consultations, electrodiagnostic procedures, Inpatient Rehabilitation, and Pediatric Rehabilitation. Students must also attend teaching conferences, clinics, lectures, rounds, etc. (University Hospital, VA Hospital, Christus Santa Rosa Children’s Hospital). No late drops will be accepted.

REHB 3007. Hyperbaric Medicine and Wound Care. Credit Hours.
This course is designed to introduce the student to the principles of wound care, advanced wound therapies, and hyperbaric medicine. The student will have the opportunity to observe monoplace and multiple hyperbaric medicine treatments; will review theory of the use of hyperbaric in the 14 UHMS approved therapies. Complication and controversies of HBO use will be discussed in lecture format. The student is required to review common wound problems, diabetes infection, nutrition, venous stasis, and arterial insufficiency. Advanced treatment modalities will be observed and reviewed wound vbac, collagen, apilgraff, OASIS, debriding agents. (University Center for Community Health [Texas Diabetes Institute]). No late drops will be accepted.

REHB 4000. Special Topic. 4 Credit Hours.
Brain Injury Rehabilitation rotation will enable students to obtain experiences in the neurologic rehabilitation of persons with brain injury. Brain injury etiologies treated include traumatic brain injury, encephalopathy secondary to metabolic, toxic, and anoxic insults, aneurismal and AVM bleeds and occasional strokes. The rotation will involve significant neuromedical and rehabilitative involvement with inpatient care, brain injury consult service, outpatient care, and, as appropriate with care of low level brain injury patients.

REHB 4001. Clinical Rehabilitation Medicine. 4 Credit Hours.
This course is especially recommended for students planning to specialize in Family Practice, Neurology, Neurosurgery, Orthopaedics, Internal Medicine, or Rheumatology. The student will have the opportunity to participate in patient-care activities and limited exposure to electrodiagnostic procedures under the direct supervision of faculty and residents. The student will have exposure to Rehabilitation Medicine from an outpatient and consultative perspective and is required to attend teaching conferences, lectures, rounds, etc. (University Hospital and/or VA Hospital). No late drops will be accepted.

REHB 4002. Introductory Inpatient Rehabilitation. 4 Credit Hours.
This course is especially recommended for students planning to specialize in Family Practice, Neurology, Neurosurgery, Orthopaedics, Plastic Surgery, ENT, Internal Medicine or Rheumatology. The course will provide in-depth exposure to inpatient rehabilitation and the major rehabilitation areas. The course will include experience in diagnosis and comprehensive rehabilitation management of inpatients with strokes, spinal cord injuries, neurologic disorders, rheumatoid arthritis, amputations, chronic pain, and other major disabling conditions. The student must attend teaching conferences, lectures, and rounds. This selective will be tailored to specific student interest. Comprehensive work-ups and close follow-up of patients will be required (University Hospital). No late drops will be accepted.

REHB 4003. Intro Pediatric Rehabilitation. 4 Credit Hours.
This course is especially recommended for students planning to specialize in Pediatrics or Family Medicine. The course includes inpatient and outpatient experience emphasizing comprehensive team rehabilitation of children with spina bifida, childhood spinal cord injury, cerebral palsy, brain damage in childhood, juvenile rheumatoid arthritis, and other chronic disabling diseases of childhood and adolescence. The student must participate in patient care under supervision of faculty and residents and attend teaching conferences. This course includes exposure to adults with congenital conditions and mental retardation (Christus Santa Rosa Children’s Hospital and University Hospital). No late drops will be accepted.

REHB 4005. Combined Rehabilitation. 4 Credit Hours.
The course is required for students planning to specialize in Physical Medicine and Rehabilitation and recommended for those desiring a broad Rehabilitation Medicine exposure. The course will provide an overview of the specialty of PM&R allowing faculty/resident-supervised participation in patient care activities related to Rehabilitation Medicine consultations, electrodiagnostic procedures, Inpatient Rehabilitation, and Pediatric Rehabilitation. Students must also attend teaching conferences, clinics, lectures, rounds, etc. (University Hospital, VA Hospital, Christus Santa Rosa Children’s Hospital). No late drops will be accepted.
REHB 4006. Intro Spinal Cord Injury. 4 Credit Hours.
This course is especially recommended for students planning to specialize in Family Practice, Neurosurgery, Neurology, Orthopaedics, Internal Medicine, and Plastic Surgery. This rotation will provide the student with the opportunity to actively participate in the management of patients who have sustained a spinal cord injury. Working in a state-of-the-art spinal cord injury facility, students are required to participate in treating patients in virtually all aspects of their injury, from acute care, to rehabilitation evaluation and treatment, to eventual discharge and outpatient follow-up. Students must become an integral part of an interdisciplinary team under the supervision of faculty and residents (VA Hospital and/or University Hospital). No late drops will be accepted.

REHB 4007. Hyperbaric Medicine & Wound Care. 4 Credit Hours.
This course is designed to introduce the student to the principles of wound care, advanced wound therapies, and hyperbaric medicine. The student will have the opportunity to observe monoplast and multiple hyperbaric medicine treatments; will review theory of the use of hyperbaric in the 14 UHMS approved therapies. Complication and controversies of HBO use will be discussed in lecture format. The student is required to review common wound problems, diabetes infection, nutrition, venous stasis, and arterial insufficiency. Advanced treatment modalities will be observed and reviewed - wound vbac, collagen, apigraft, OASIS, debriding agents. (University Center for Community Health (Texas Diabetes Institute)). No late drops will be accepted.

REHB 4008. Rehabilitation Engineering. 4 Credit Hours.
This course is especially recommended for students planning to specialize in Family Practice, Neurology, Neurosurgery, Orthopaedics, Internal Medicine, or Rheumatology. The student will have the opportunity to participate in patient-care activities and have limited exposure to orthotics, prosthetics, and pedorthotics procedures under the direct supervision of faculty and residents. The student will have exposure to Rehabilitation Medicine from an outpatient/inpatient perspective and is required to attend clinics to experience comprehensive rehabilitation management of inpatients with strokes, spinal cord injuries, neurologic disorders, rheumatoid arthritis, amputations, and other major disabling conditions requiring orthotics, prosthetics, and pedorthotics. The student will have exposure to the gait lab to experience research and an understanding of gait. (University Hospital and University Center for Community Health (Texas Diabetes Institute)). No late drops will be accepted.

REHB 4009. Polytrauma. 4 Credit Hours.
This course is recommended for students planning to specialize in PM&R, Neurosurgery, Neurology, Emergency Medicine, Orthopedics, Family Medicine or Internal Medicine. This course will enable students to obtain experiences in the neurologic rehabilitation of persons with brain injury, which includes traumatic brain injury and encephalopathy secondary to metabolic, toxic and anoxic etiologies.

REHB 7000. Off Campus. 4 Credit Hours.
All off campus rotations must be approved by the designated faculty prior to the beginning of the rotation (at least one week before the course begins). Credit will not be given for any rotation that has not been approved in advance. Required paperwork includes: "Course Approval" form, a written letter or email for acceptance form the physician preceptor with the start and end dates of the course/rotation, and a course description of your learning objectives and responsibilities during the rotation. Forms must include a complete address and telephone number for the off campus location or residence address for the student while at the off campus site. Forms will not be approved after the rotation has already begun. Contact the department for assistance with enrolling in this course.

Respiratory Care (RESC)

Courses

RESC 3002. Fundamentals of Respiratory Care. 4 Credit Hours.
The course will present the principles of chemistry and physics as they apply to respiratory care. Students will have the opportunity to gain hands-on experience with basic respiratory care equipment. Specific types of therapy are examined to understand the principles of application to patients, indications, hazards, contraindications, select, assemble, and troubleshoot equipment. Equipment will include oxygen delivery services, aerosol generators, medication delivery devices, pressure ventilators, gas delivery, metering and analyzing devices, percussor, positive pressure devices, environmental devices, manometers, gauges, and vacuum systems.

RESC 3005. Respiratory Care Pharmacology. 2 Credit Hours.
This course introduces the physiologic and pharmacologic basis of pulmonary and cardiac medications. Students will study several aspects of the formulation and preparation of the most commonly prescribed respiratory drugs. Pharmacodynamics and pharmacokinetics will be discussed along with drug formulation, drug dosage calculations, indications, contraindications and side effects of cardiac and pulmonary medications. Topics covered include an overview of bronchactive agents, anti-inflammatory drugs, anti-asthmatics, neuromuscular blocking agents, diuretics, cardiac drugs and drugs that affect the central nervous system.

RESC 3010. Cardiopulmonary Pathophysiology I. 4 Credit Hours.
Provides a comprehensive approach to etiology, pathophysiology, clinical manifestations, diagnosis, treatment and prognosis of common pulmonary diseases and syndromes. Main topics include obstructive and restrictive pulmonary disorder.

RESC 3011. Patient Assessment. 3 Credit Hours.
Fundamentals of respiratory assessment will be covered to include review of existing data in the patient record, patient history, physical examination, oximetry, blood gases, respiratory monitoring, pulmonary function assessment, laboratory studies, chest and upper airway radiographs, ventilation/perfusion scans, bedside EKG interpretation, cardiovascular monitoring, and nutritional assessment.

RESC 3019. Clinical Practice 1. 3 Credit Hours.
This course introduces students to clinical practice in basic respiratory care procedures. Topics include: introduction to the clinical affiliate, patient assessment, medical gas therapy, oxygen therapy, and aerosol therapy. In addition, hyperinflation therapy, airway clearance therapy, airway care using nasal, endotracheal and tracheal tubes is introduced in basic care situations. Case presentations are required to integrate clinical and classroom theory.

RESC 3020. Cardiopulmonary Pathophysiology 2. 3 Credit Hours.
Provides a comprehensive approach to etiology, pathophysiology, clinical manifestations, diagnosis, treatment and prognosis of common diseases and syndromes that affect the respiratory system. Non-respiratory disorders impacting cardiopulmonary function commonly encountered in the critical care unit will be discussed including renal and cardiovascular diseases.

RESC 3021. Mechanical Ventilation. 3.5 Credit Hours.
This course provides instruction in the theory, setup, operation, and maintenance of mechanical ventilators and related equipment. Topics include mechanical ventilator theory, ventilator operation, ventilator maintenance, and troubleshooting. Maintenance of artificial airways, fiberoptic bronchoscopy, thoracentesis, chest tube maintenance, and arterial blood gas sampling related to the critical care patient.
RESC 3023. Pulmonary Function Testing. 2 Credit Hours.
This course provides a comprehensive overview of diagnostic tests used to evaluate normal and abnormal pulmonary function. Students will have the opportunity to perform, interpret and evaluate various tests of lung functions, including spirometry, measurement of lung volumes, diffusing capacity and metabolic measurements. Additionally, students will learn how to operate, calibrate and do quality control on pulmonary function and gas analysis equipment.

RESC 3029. Clinical Practice 2. 4 Credit Hours.
Critical respiratory care is introduced to include all tasks presented in Clinical Practice I as applied to the intensive care unit. In addition, tracheostomy care, ventilator monitoring, arterial puncture and blood gas analysis, endotracheal intubation, EKG services, and bronchoscopy observation are introduced. Case presentations are required to integrate clinical and classroom theory. Prerequisites: RESC 3019.

RESC 3030. Respiratory Care across the Life Span. 3 Credit Hours.
This course will provide students with a holistic view of how respiratory therapists interact with patients of all ages. Principles, practices, theories and therapeutics related to cardiopulmonary health and disease across the neonatal, pediatric, adolescent, adulthood and geriatric periods will be covered. Presenting respiratory care as a continuum will provide students with a unique developmental overview, designed to enhance their didactic and clinical acumen.

RESC 3031. Critical Respiratory Care Management. 4 Credit Hours.
This course provides a study of invasive and non-invasive patient monitoring techniques and equipment. Invasive topics will include arterial pressure monitoring, central venous and pulmonary artery catheters, as well as cardiac output measurement. Non-invasive monitoring topics include pulse oximetry, transcutaneous monitoring, inductance plethysmography, capnography and electrocardiogram. It also covers instruction on the phase of adult critical care and continuous mechanical ventilation. The history of mechanical ventilation, modes of mechanical ventilatory support, implementation, patient stabilization, monitoring, hemodynamics, ventilator weaning and discontinuance will be covered.

RESC 4001. Cardiopulmonary Technology. 3 Credit Hours.
An overview of the various areas comprising cardiopulmonary diagnostics and related technology will be provided. Topics include sleep laboratory, stress and exercise testing, metabolic testing, ventilation/perfusion scanning, cardiac catheterization laboratory, and noninvasive cardiology. In addition, extracorporeal membrane oxygenation, mechanical circulatory assistance, hyperbaric medicine, and perfusion technology will be introduced.

RESC 4002. Geriatric Respiratory Care. 2 Credit Hours.
The course introduces students to aging issues along with expected psychological changes in older adults and how they relate to patient care. Topics include: ageism, demographics of aging, age associated cardiac and pulmonary changes, geriatric patient assessment, atypical disease presentation, pulmonary disease, geriatric pharmacotherapy, delirium and dementia, communicating with the elderly, health aging strategies, and health care economics.

RESC 4003. Pediatric and Neonatal Respiratory Care. 4 Credit Hours.
The processes of growth and development relating to respiratory care, from the fetus to the adolescent, will be discussed. The study relates physiologic function to respiratory care including assessment, evaluation, and treatment. Topics include fetal growth and development, neonatal growth and development, fetal assessment, fetal evaluation, neonatal assessment, neonatal evaluation, neonatal respiratory care, neonatal pathology, pediatric pathology, and pediatric respiratory care.

RESC 4009. Clinical Practice 3. 5 Credit Hours.
Students will have an opportunity to further develop skills required in the intensive care of the respiratory patient. Topics include comprehensive ventilator management, measurement and evaluation of hemodynamic variables, noninvasive monitoring, and pulmonary function laboratory. Specialty rotations include: intubation, hyperbaric oxygen therapy units, cardiac catheterization, echocardiography, pulmonary rehabilitation and home care. This course also introduces the student to neonatal and pediatric care. Case presentations are required to integrate clinical and classroom theory. This clinic also includes a review of respiratory care as it pertains to the national credentialing examinations administered by the National Board for Respiratory Care (NBRC).

RESC 4010. Advanced Critical Care Management. 5 Credit Hours.
An overview of the various areas comprising cardiopulmonary diagnostics as they apply to neonatal, pediatric and adult populations. Topics include advanced hemodynamic monitoring, ventilation/perfusion scanning, cardiac catheterization and noninvasive cardiology. In addition, extracorporeal membrane oxygenation (ECMO), mechanical circulatory assistance and perfusion technology will be introduced. This course has a laboratory component to utilize the respiratory care equipment used for ventilating neonates, pediatric and adult patients.

RESC 4011. PATIENT CARE MANAGEMENT SEMINAR. 2 Credit Hours.
This course is a review of respiratory care as it pertains to the national credentialing examinations administered by the National Board for Respiratory Care (NBRC). A series of simulation examinations will be used to help students prepare for these exams. Emphasis will be placed on decision making and problem solving as they relate to clinical respiratory care. Topics include Certified Respiratory Therapy Technician (CRTT) exam preparation and Registered Respiratory Therapist (RRT) exam preparation.

RESC 4012. Disease Management, Rehabilitation, and Extended Care. 4 Credit Hours.
This course provides an overview of the concepts, procedures, and equipment utilized in the delivery of long-term care to persons with a chronic cardiopulmonary disorder. The development and implementation of disease management programs for the care of patients with asthma, COPD, and other chronic conditions is presented. Pulmonary rehabilitation, patient education, and smoking cessation programs are reviewed. Provision of health care services in the home and other nonacute settings is examined, along with technological and procedural aspects of cardiopulmonary equipment.

RESC 4013. Leadership and Management in Respiratory Care. 3 Credit Hours.
This course is an introduction to management principles and problems and their relation to health care organizations. The duties and obligations of the healthcare manager are covered and related to various leadership strategies. The student will develop an understanding of their own personal leadership style and how to effectively utilize their strengths in a leadership capacity. The primary focus is on hospital-based respiratory care departments and alternative settings. Open to seniors only.

RESC 4015. Education in Respiratory Care. 3 Credit Hours.
This course is an introduction to basic principles and techniques used in respiratory care education. Topics include patient education, inservice education, course design, objectives, lesson-plan development, learning activities, use of media, development of presentations, testing, and evaluation. Senior status is required.
Restorative Dentistry (RESD)

Courses

RESD 5001. Biomaterials 1. 1 Credit Hour.
An introduction to fundamental physical, mechanical, and chemical properties of materials is provided. Lectures include basic introductions to the fields of metals, polymers, and ceramics.

RESD 5004. Dental Anatomy & Occlusion. 2 Credit Hours.
This course is designed to teach the freshman dental student the anatomical, morphological and functional aspects of the oral cavity; as well as to introduce terminology used by the oral health professions. More specifically, to expand his/her knowledge of the dentition, supporting structures, and to provide students with a detailed study of normal occlusal relationships in the various jaw positions.

RESD 6002. Preclinical Operative Dentistry. 3.5 Credit Hours.
Preclinical projects conducted in the laboratory which provide simulation of clinical conditions.

RESD 6021. Advanced Dental Materials. 3.5 Credit Hours.
Students have an opportunity to become acquainted with sophisticated research equipment through hands-on exposures. Measurements of mechanical, physical, and chemical properties of commonly used dental materials give the student the opportunity to envision and formulate research projects in dental materials.

RESD 6102. Biomaterials 2. 1 Credit Hour.
A didactic introduction to dental materials by classification, this course describes the manipulative and technical aspects of each existing material category and relates the basic physical, mechanical, and chemical properties to the desired end use so that intelligent choices may be made as new materials become available.

RESD 6108. Temporomandibular Disorders. 1 Credit Hour.
This course is designed to provide students with a comprehensive approach to the diagnosis and sequential management of patients with temporomandibular disorders.
RESD 7010. Operative Dentistry Lecture. 1.5 Credit Hour.
A series of lectures designed to present more sophisticated didactic material in areas not included in the first and second year preclinical courses. This course serves as a forum for discussion of individual clinical problems and their solutions which are of interest to the class as a whole.

RESD 7011. Operative Dentistry Clinic. 4.5 Credit Hours.
Students are given the opportunity to commence the clinical practice of operative dentistry. Each student is expected to achieve competency in the restoration of teeth with various restorative materials. Students’ application of knowledge of proper patient management is assessed.

RESD 7050. Esthetic Dentistry. 1.5 Credit Hour.
The course examines the subtle and individual issues of dental esthetics and addresses facial contours, tooth arrangement, individual tooth contours, and tooth shade. The laboratory phase emphasizes the principles of dental esthetics during the fabrication of a porcelain laminate veneer restoration.

RESD 8051. Senior Esthetic Dentistry. 0.5 Credit Hours.
This course is designed to present available alternatives in esthetic dentistry, indication and clinical applications for each alternative, new materials designed for the concepts of esthetic dentistry, and appropriate methods of patient communication and patient management. Emphasis will be placed on clinical applications, efficacy of materials, precise communication with the laboratory concerning veneer shade information, and methods of doing chair-side color modifications.

Selective (SELC)

SELC Courses

SELC 7007. General Practice Emergency Care. Credit Hours.
The Dental Emergency Care Course (DECC) is designed to provide practical clinical experience in the diagnosis and treatment of emergency dental care problems. The course includes, on a limited basis, more comprehensive treatment of patients of record where it is determined that an acute problem might develop if comprehensive treatment or retreatment is delayed. DECC is conducted during the summer months from the end of Junior Clinic in May until the beginning of Senior Clinic in August. Two students will be required to cover emergencies during the Christmas holiday period and Spring Break.

SELC 7009. Orthodontic Summer Clinic. Credit Hours.
This course gives the student an opportunity to work with orthodontic graduate students treating comprehensive cases. Students will have the opportunity to actively participate in all aspects of patient care and resident training.

SELC 7010. Commissioned Officer Student Training and Extern Program (COSTEP). Credit Hours.
Health professional students, including dental students, are commissioned as reserve officers in the Public Health Service Commissioned Corps and called to active duty for further professional clinical training during summer months (U.S. citizenship required). Assignments of dental students are made according to the training and skills of the applicants and the needs of the PHS agencies. The agency that predominantly selects dental students for clinical assignments is the Indian Health Service. The deadline for application is December 31 each year. Application packets are available from the Public Health Service (http://www.usphs.gov) and the Dental Dean’s Office. Duration of assignment is 31-120 days. Attendance is mandatory and failure to complete or withdraw from the course will result in a WF entry on the student’s transcript. 160 clinic hrs/2-5 students (varies)/31-120 days/Rising DS 4.

SELC 7011. Summer Clinical/Community Externship. Credit Hours.
Rising senior students are selected to provide dental care to patients enrolled in community clinics that are affiliated with the Dental School under the supervision of the community clinic dental directors. The clinics are located primarily in communities along the U.S./Mexico border of Texas. Rising sophomore and senior students will be selected to develop and implement patient education and community outreach services for the clinic. Duration of assignment will be 2-4 weeks in accordance with the schedules of the on-site dentist supervisors. Attendance is mandatory and failure to complete or withdraw from the course will result in a WF entry on the student’s transcript.

SELC 7027. Research Protocol Development. Credit Hours.
In this elective course, the student, with guidance of the mentor, is required to review the literature and develop a research protocol. Credit for the elective course will be awarded by the mentor contingent on the approval of the protocol by the mentor and the Associate Dean for Research. To apply for this elective, the student must be in good academic standing as determined by the Associate Dean for Academic Affairs. If placed on academic probation, students may become ineligible to complete the elective course. Enrollment in this elective may be extended through the following semester, provided that the Associate Deans for Research and Academic Affairs approve the extension and the mentor reports satisfactory progress. A student may withdraw from this elective course at any time without recording of withdrawal on the transcript. By arrangement/year round.

SELC 7028. Research Completion of Individually Design. Credit Hours.
In this elective course the student, with guidance of the mentor, will complete individually designed research following the approved protocol. The student must continue to be in good academic standing to apply for and to complete this elective course. Enrollment in this elective can be extended from semester to semester when the mentor reports satisfactory progress. Student participation in the AADR student research fellowships or NIDCR summer Research Training Programs fulfills the requirements of the elective. Withdrawal from this elective course will result in entry on the transcript as WP or WF as determined by the mentor. Credit for the course is contingent on verification by the mentor that the research has been completed satisfactorily up to abstract submission and acceptance at a national/international scientific meeting. By arrangement/year round.

SELC 7029. Manuscript Preparation And Presentation. 2 Credit Hours.
In this elective course, the student, with guidance of the mentor, is required to help prepare an abstract and extended abstract, not to exceed six pages, suitable for incorporation into a peer-reviewed publication. The student must also present their research at a national/international scientific meeting and the annual Dental School Science Symposium. A copy of a published abstract, the extended abstract, and paperwork showing completion of all required coursework must be submitted to the Dental School research committee by the end of March the senior year for review. A student must be in good academic standing to participate in this elective course. The mentor will award a grade for the elective course. Withdrawal from the elective course will result in entry on the manuscript as WP or WF as determined by the mentor. By arrangement/year round.
SELC 7032. Pediatric Dentistry Clinical Externship Program. Credit Hours.
The Pediatric Dentistry summer selective course is a two week long clinical course, in which rising seniors are offered the opportunity to provide comprehensive Pediatric Dental Care at the UTHSCSA Pediatric Dental Clinic, and the Ricardo Salinas Clinic. This selective course will provide students with broad clinical experiences, ranging from the simple preventative procedures to the more complex operative and surgical procedures encountered in Pediatric Dentistry.

SELC 7041. Supervised Teaching/Prosthodontics. Credit Hours.
Senior students are assigned to various clinics, laboratories and classes for the opportunity to acquire experience in teaching freshman, sophomore and/or junior students in a variety of educational situations. Supervision and evaluation of teaching performance is provided by the departmental faculty.

SELC 7088. Community Service Elective. 0.5-9 Credit Hours.
This elective offers an opportunity for students to receive up to 1.5 credit hours for 10-45 hours of documented community service. Service hours can be filled by participating in school-wide or community agency service projects or helping the Department of Community Dentistry with health fairs. Students will be able to choose the activities that they participate in from a list of approved activities. The service activities will take place during hours outside the curriculum (usually weekend; some evenings/pending availability of the student). This elective is open to all students. By arrangement.

SELC 7091. Topics In Head & Neck Anatomy. 1.5 Credit Hour.
This elective will provide students an opportunity to explore selected aspects of head and neck anatomy in greater depth than can be achieved in the first-year anatomy course. Topics for further study are to be agreed upon by the student and the course director. The principal method of achieving the objective of this course is dissection. In consultation with the course director, these dissections will be planned to produce specimens that display anatomical relationships not readily demonstrable in routine dissections. Selection of participants in this elective will be based upon a completion grade of A or B in Dental Gross Anatomy (CSBL 5016) and on each student’s previously demonstrated dissection skill. A written statement by the student describing the anatomical area of interest and its relationship to clinical dentistry will also be required. Upon completion of the course, the student will do an oral presentation of their dissection project to the course director and other anatomy faculty. Failure to complete or withdrawal from the course will result in an appropriate entry on the transcript.

SELC 7092. Single Stage/Solid Implant Elective. 0.5 Credit Hours.
Students will attend lectures on the biologic response of tissue adjacent to the single stage implant. Also, students will learn the diagnosis for positioning, surgical placement and restoration of the implants. Following the lecture series, the students will be assisted in the placement and restoration of an implant for a patient. The patients will be selected in consultation with the course faculty and team leader and may be part of a “family of patients”. The patients are patients of record and will not be a part of any study or research program.
SELC 7099. Dental Spanish Selective. Credit Hours.
This selective is designed for those students who are interested in acquiring basic conversational skills in the Spanish language as it pertains to dentistry. The course is not a Spanish language class and will focus mainly on teaching dental students how to interact with their Spanish-speaking patients in the dental office setting. This selective will be planned and conducted by dental students. The Hispanic Student Dental Association will assume responsibility for implementing this course annually.

SELC 7100. Getting Acquainted with Periodontics Elective. 0.5 Credit Hours.
This elective is designed to provide an interested predoctoral student with a chance to visit with and observe a periodontics specialty student. The predoctoral student will be given a chance to become more familiar with some of the advanced periodontal therapies at the disposal of the specialist. Also, the predoctoral student will have an opportunity to get to know a specialty student who recently graduated from dental school and has recently made some critical career choices. Withdrawal from this elective will be permitted at any time without recording of the withdrawal on the transcript as long as notification is provided to the course director.

SELC 7103. Oral Surgery Clinic Rotation. 1 Credit Hour.
Oral surgery clinic rotation at UCHD (Brady Green Clinic).

SELC 7106. Endodontics Pain Research. Credit Hours.
This selective will provide advanced training in basic or clinical research on orofacial pain mechanisms. This course is ideal for those students interested in pursuing the research honors program or a PhD program. By arrangement/juniors & seniors/24 students/Contact course juniors and seniors director for estimated time commitment.

SELC 7107. Periodontal Flap Design Elective. Credit Hours.
Each participant is required to attend lecture and seminar presentations, and participate in laboratory sessions devoted to learning the fundamental aspects of periodontal flap surgery. The learning activities will include (1) seminars on flap design, surgical anatomy, and avoidance of complications; (2) video presentations of periodontal surgical techniques; (3) bench-top exercises in flap design and creation; and (4) bench-top exercises in periodontal suturing. Recorded as CR (successful completion) on the transcript. Withdrawal at any time, with prior notice to the course director, is permitted without transcript recording.

SELC 7108. Basic Periodontal Surgery Elective. Credit Hours.
Each dental student will have the opportunity to participate in the surgical treatment planning, surgical procedure (both as an assistant and surgeon), and postoperative follow-up care of one periodontal surgical procedure (e.g., flap for access and crown lengthening). Second- and third-year periodontal postdoctoral students will mentor each case. For this selective, all surgeries and POT visits take place on Wednesday mornings only. The first meeting of the selective will be an orientation to discuss the logistical plan, time commitments, student expectations, fee structure, etc. Approximately three hours of lecture will also be included. The remaining sessions will be in the Periodontics Postgraduate Clinic. To accommodate the scheduling of the surgery and to include the postoperative operative appointments, which are performed at 1, 2, and 6 weeks after surgery, students must be available throughout the elective time period noted above (keep in mind your rotation and other selective schedules).

SELC 7109. Graduate Orthodontic Clinic Rotation. Credit Hours.
The objective of this selective is to provide interested undergraduate students with the opportunity to assist orthodontic graduate students performing comprehensive orthodontic treatment. Students must have completed SELC 7097 Preclinical Orthodontic Techniques to participate, since they will be asked to perform clinic procedures other than assisting. Three students can participate in each of the five graduate clinic sessions held each week, Tuesday and Thursday - all day; Wednesday - pm session only. The number of sessions each person can attend will depend on the number of eligible students who apply.

SELC 7112. Women’s Clinic Selective. 0.5 Credit Hours.
The objective of this elective is to provide the students with knowledge and skills on the management of female patients in different stages of pregnancy. The students will also provide the mother-to-be with oral care education for the newborn. Rising seniors and junior students will be assigned to the Ricardo Salinas Clinic to provide dental care and prevention services. Seniors will have the opportunity to acquire mentoring skills by interacting with the rising junior. A minimum of four weeks will be scheduled. General Practice points will be awarded. Withdrawal will be permitted before the second session of the selective without transcript recording.

SELC 7113. Women’s Health Seminar Selective. 0.5 Credit Hours.
This is a multi-professional course on some special health issues unique to women. The goal is to sensitize interested dental students to these issues and inform them of important questions and special examination techniques that they should incorporate into their patient assessment and treatment planning strategies. Five main health topics will be covered: Ethics, Bone Health, Impact of Socio-cultural Roles on Women’s Health, Cardiovascular Health, and Maternal Oral Health. Additionally, students are required to choose five topics from the remaining 25 online lectures, for a total of 10 lecture hours. Students must answer pre- and post-test questions for each lecture viewed.

SELC 7114. Interprofessional Community Service Learning 1 (IPCSL 1). Credit Hours.
This is an innovative interprofessional community service learning (CSL) course for medical, dental, nursing, and pharmacy students. The goal of this course is to promote social accountability among health professional students through the integration of meaningful service learning with the core competencies of interprofessional education. This course enables students from various health science professions to learn with, from, and about each other and each other’s roles on a health care team as they examine social determinants of health and social justice issues while applying these principles in a structured service learning practicum.

SELC 7115. Interprofessional Community Service Learning 2 (IPCSL 2). Credit Hours.
This is an innovative interprofessional community service learning (CSL) course for medical, dental, nursing, and pharmacy students. The goal of this course is to promote social accountability among health professional students through the integration of meaningful service learning with the core competencies of interprofessional education. This course enables students from various health science professions to learn with, from, and about each other and each other’s roles on a health care team as they examine social determinants of health and social justice issues while applying these principles in a structured service learning practicum.

SELC 7116. Research Methodology And Evidence-Based Practice. Credit Hours.
Dental students will acquire information and skills in designing research studies, data analysis methods, basic statistical techniques, critical appraisal of the research evidence, development of Critically Appraised Topic Summaries, scientific writing and practice-based research networks.
**SELC 7117. Third Year Clinical Teaching Experience. Credit Hours.**
This selective is limited to THP students pursuing the Distinction in Dental Education. The course goal is to provide dental students with opportunities to function as a teacher in the clinical setting by planning and conducting "Preparing for Patient Care" workshops for 2nd year students followed by: (1) self-assessment, (2) feedback from the students who attended the workshops, and (3) feedback from the THP Director and/or faculty members who observed the students' workshops. Prerequisites: Prior completion of these THP courses: SELC 7122, SELC SELC 7094, and SELC 7095.

**SELC 7118. Fourth Year Teaching Rotations. Credit Hours.**
This selective is limited to THP students pursuing the Distinction in Dental Education. The course goal is to provide dental students with opportunities to function as a preclinical lab instructor in the "Dental Hand Skills Development Module" for 1st year students, and to function as an "Instructor for a Day" in the GPGs. In the later rotation, THP seniors will take the place of a GPG core faculty member and provide instruction for 3rd year students for a full clinic session. Prerequisites: SELC 7122, SELC 7094, SELC 7095, SELC 7069.

**SELC 7120. Preventive Dentistry Outreach. Credit Hours.**
Paired groups of DS I students are required to participate in a three-week Rotation during the summer session between the freshman and sophomore years. The students will be based at Mercy Ministries of Laredo. Students must participate in outreach to include dental education on dental disease prevention and oral health promotion and will work alongside clinic outreach staff (e.g., Promotoras and Social Workers) and dental care providers (dentist, dental hygienists, and dental assistants). Activities will include clinical preventive patient education, dental surveys, and dental assisting. Students are required to develop a health promotion and disease prevention project (e.g., patient handout, educational flip chart, presentation, etc.). This tool will be implemented and continue to be used in future outreach by the program. Students will also have the opportunity to rotate to the office of a private practitioner as a part of this program. This is a work-study selective; students will be employed by UTHSCSA and receive selective credit. Ability to communicate in Spanish is essential. 3-week rotation.

**SELC 7122. Academic Dental Career Mentorship. Credit Hours.**
First year students will meet with faculty members to learn about academic careers: why did the faculty member choose to work in a dental school, what are the benefits of an academic career and what are the limitations of an academic career. Additionally, students learn about the roles and responsibilities of dental school faculty members in teaching, research, administration and service. Participating students prepare summaries of what they have learned about academic careers, submit these to the course director for review and then participated in a wrap-up seminar where teams of students share and discuss their experience and identity "take-home messages", insights and surprises about academic careers in dentistry. Dental students can take this course as a stand-alone selective without committing to the THP.

**SELC 7130. Introduction To Graduate Prosthodontics. 2 Credit Hours.**
This course intends to familiarize students with a graduate prosthodontics residency. Participants will be introduced to complex and challenging situations in clinical prosthodontics through a series of lectures, pertinent literature reviews, patient diagnosis and treatment planning seminars, demonstrations of clinical patient treatment, and the laboratory procedures that support treatment. Withdrawal, with notice to the course director, will be permitted without recording of the withdrawal on the student's transcript.

**SELC 8023. Wonderful World Of Periodontics. Credit Hours.**
Periodontal therapy includes a variety of sophisticated surgical modalities with many different objectives. Having a basic understanding of these surgical procedures and their outcomes can give a general dentist a basis for improving communications with patients related to periodontal treatment needs. This course will showcase advanced periodontal surgical procedures and their outcomes through case presentations made by Periodontics postdoctoral students.

**SELC 8026. Advanced Esthetics Selective. 0.5 Credit Hours.**
Hands-on clinical experience in esthetic dentistry with emphasis on indirect bonded restorations.

**SELC 8032. Senior South Texas Rotation. Credit Hours.**
Senior dental students will be required to provide basic dental care and preventive services to patients in a community-based clinic in South Texas. The participating community clinic and time schedules will be available in the Dental Dean’s Office/Office of External Affairs. A minimum of 2 weeks will be scheduled by arrangement. Attendance is required. Withdrawal permitted with appropriate transcript entry. Seniors may participate for a maximum of 4 weeks based on availability. Housing will be provided. Participants will be scheduled based on the list of students who register for the course. Students must complete evaluation forms at the end of the rotation.

**SELC 8035. Mobile Van Mission Dental Care Program. Credit Hours.**
Dental students at all levels of education and experience participate in a primary care/preventive dentistry elective training program in which primary dental care is provided in a non-conventional setting, using mobile dental care facilities and/or portable dental equipment. Students participate in accordance with their level of training and ability, by providing needed dental care to patients of all ages from lower socio-economic border areas of Texas and Mexico, as well as other dentist shortage areas in Texas, thus becoming familiar with the oral health needs of various segments of the population. Dental care is provided under the direct supervision of Dental School faculty, including adjunct faculty from the private sector. The mission trips are coordinated and organized by the San Antonio Christian Medical-Dental Association. Medical teams are also located at each dental clinic manned by physicians, nurses, and medical students, thereby coordinating care and providing an opportunity for interdisciplinary training with medical disciplines.

**SELC 8060. Advanced Graduate Clinic Rotation. 1.5 Credit Hour.**
This course is designed for the student who is seriously considering specializing in orthodontics upon graduation from Dental School. The student will be trained in all facets of clinical orthodontics and will be expected to perform a variety of orthodontic procedures on patients under the supervision of clinical faculty and residents on a regular basis. Students must complete a minimum of 40 clinical hours per semester for credit.

**SELC 8087. Realizing Enhanced Student Inter-Professional Education Through Clinical Teamwork (RESPPECT). Credit Hours.**
Future health professionals who will be working together in clinical settings would benefit from clinical education and training opportunities that promote the appreciation of the skills of other team members providing health care to patients. The course is an interdisciplinary clinical training opportunity for dental, dental hygiene, medical and nursing students to work together in teams to evaluate the level of health and wellness of an underserved population by utilizing the student run free medical and dental/hygiene clinics at the SAMM Transitional Living and Learning Center (TLLC) a homeless transitional center. Course limited to four senior or fourth-year dental students. Permission required by course director.
SELC 8094. Enteral Conscious Sedation And Emergency Procedures. 0.5 Credit Hours.
This is the TSBDE approved two-day course in oral sedation. This course is necessary in order to apply for and be granted a permit in Enteral Sedation by the State Board of Dental Examiners.

SELC 8099. Exciting Orthodontic Literature Review. Credit Hours.
Selectees will have the opportunity to review classic articles in clinical and research areas of Orthodontics. This course is designed to provide a springboard for those students entering graduate programs. Withdrawal will be permitted at any time without recording of the withdrawal on the transcript. Two absences will be permitted. Participants will be selected from the list of students who register for the course.

SELC 8117. CAD-CAM (Cerec 3D) Dentistry. 0.5 Credit Hours.
The course consists of four half-day sessions and is designed for students who will intensify their clinical skills of CAD-CAM dentistry. Students will be given the information needed to keep up-to-date with the latest techniques and software. A maximum of 8 students are encouraged per course session.

SELC 8129. Comprehensive General Dentistry Elective. 1.5 Credit Hour.
This course will permit rising DS4 students to continue their clinical training by providing care to assigned patients during the month of June. Students will provide comprehensive care under the guidance of their Group’s faculty and additional specialists on a referral basis.

SELC 8130. Clinical Occlusion. Credit Hours.
The goal of this course is to relate the concepts and principles of occlusion learned during previous years to the treatment of the normal patient as well as the patient with damaged dentitions. The purpose of this course in Occlusion is two-fold. First, the course is a continuation of basic occlusion concepts and their relationship to general dentistry. Second, the course will introduce disorders of the natural dentitions. The role occlusion in diagnosis and treatment of these disorders will be explained. Techniques include occlusal splint appliance and pre-restorative occlusal adjustment will be presented. This course will be delivered in two parts. The first part is related to lectures and the one to laboratory procedures.

SELC 8160. Molar Endodontic Selective. 1 Credit Hour.
This course is designed to allow students to develop skills and appreciation for endodontics therapy on uncomplicated molar cases. It is a self-paced course that involves VitalBooks and Web-based (BlackBoard) reading assignments, video reviews, and hands-on pre-clinical projects on extracted molar teeth. Students who successfully complete this course and go on to complete two molar cases to the satisfaction of the supervising endodontics faculty, will be qualified to perform endodontics therapy on selected molar cases in the General Practice Clinic. Successful completion of one simple (single-rooted) clinical case, demonstrating good basic understanding of principles and procedures. Withdrawal is permitted at any time without recording on the transcript. Year round/by arrangement. Prerequisites: ENDO 6041 and 6142.

SELC 8175. Geriatric Dentistry. 1 Credit Hour.
Senior dental students will have the opportunity to provide primary dental care and prevention services to a dynamic and diverse population of medically and functionally challenged older adults. In the 10 clinic sessions scheduled by arrangement at the Extended Care Therapy Center at South Texas Veterans Health Care System, senior dental students will review a patient’s medical history, medical problems, medications, physical disabilities, sensory deficits, psychosocial status, and environmental factors, as well as review previous dental treatment. These variables will be assessed and used to determine the impact these factors may have on the dental management of the patient. Students, with their faculty supervisor, must develop dental treatment plans and will have the opportunity to provide dental treatment to these patients. Withdrawal from the selective, with notice to the course director, will be permitted at any time without recording of the withdrawal on the transcript.

Students will have the opportunity to work with oral and maxillofacial radiology residents under the supervision of the program director. Students will have the opportunity to learn about Cone Beam CT technology and the different machines the program operates, as well as learn about the selection criteria. He/she will have the opportunity to observe and participate in the report writing service that the Oral and Maxillofacial Radiology (OMFR) program provides on a national level.

SELC 8181. General Dentistry Implant Selective. Credit Hours.
This course provides a select group of DS-IV students who are planning to become general dentists the opportunity to place and restore implants. The course will consist of a pre-clinic rotation during the summer break, followed by didactic and clinical sections during the course of the academic year. Patients will present with uncomplicated implant placement.

SELC 8185. Fast CATS: Academic Detailing. 1 Credit Hour.
Participants will attend a two-day "Evidence-Based Practice: Academic Detailing" workshop, prepare two Critically Appraised Topics with a faculty member, receive training in academic detailing skills, and visit five private-practice dental offices during the summer break. The office visits may be made in the student’s hometown or anywhere in the U.S. The purpose of the visits is to present and receive feedback on new concepts.

SELC 8528. Oral & Maxillofacial Surgery. Credit Hours.
This course is designed to provide additional clinical experiences in support of the competency statements for the school specifically as they relate to the management of more difficult Oral Surgery patients. During the rotation, students will be encouraged to attend hospital rounds and scheduled resident and student seminars. The majority of clinic time will be spent managing complex cases. Management of patients with multiple system disease and more difficult surgeries will be emphasized. Every attempt will be made to assign students cases where the high-speed surgical drill is required. The rotation is a minimum of 2 weeks in length. The time scheduled in the OMS clinic will be determined by departmental needs and availability of space. Any students interested in observing in the Emergency Clinic in the hospital please contact Dr. Spackman. Students are required to attend all clinic sessions for which they have signed up.
Surgery (SURG)

Courses

SURG 3001. Emergency Medicine. Credit Hours.
This elective introduces the third-year medical student to the specialty of emergency medicine and reviews principles of emergency care that will benefit a graduate entering any specialty.

SURG 3002. Surgical Oncology. Credit Hours.
Students must function as "interns" on the surgical oncology service. They admit and discharge surgical oncology patients. They perform history and physical examinations, and keep daily records on surgical oncology patients. They follow patients in the outpatient clinics, in the emergency department, in the intensive care units and on general wards. They participate in operations for their patients. They participate in pre- and post-operative care of surgical oncology patients. They present cases, attend all conferences, and take call as designated by the surgical oncology service. They may participate in basic science research projects in the surgical oncology laboratory and in ongoing clinical trials of cancer diagnosis and management.

SURG 3004. Supervised Basic Science Research. Credit Hours.
Students are required to participate in a basic science project in a research laboratory. Before students enroll in the course, they must contact a surgery faculty member with whom they want to conduct a basic science research project. In order to receive credit for this elective, a student must write a brief synopsis of the basic science research project to include research purpose, methodology, and project (report, abstract, presentation, experiments). The students must submit the synopsis with paperwork for approval of the elective. Midway during the elective (2 or 4 weeks), a student must submit a progress report to the Director of Surgical Education and the supervising surgery faculty member. At the end of the elective, a student will submit a final report to the Director of Surgical Education and to the supervising faculty member, Texas Diabetes Institute.

SURG 3005. Surgery Clerkship. 14 Credit Hours.
The 12-week clerkship is divided into two 6-week rotations, one on general surgery and one on surgical specialties. Each of these rotations is then subdivided into two 3-week sessions with the general surgery rotation consisting of sessions on each of two different surgical services and the surgical specialties rotation including sessions on two different specialty services chosen electively from among seven surgical specialties. During this surgical clerkship, the student is afforded the opportunity to participate actively in the diagnosis and therapy of patients suffering from both acute and chronic surgical illness including both ambulatory and bedridden patients. The clerkship is interwoven with teaching ward rounds, clinical conferences, symposia, and a reading program with weekly examination and reviews on all aspects of surgery and the surgical specialties. The goals of the surgical clerkship are to provide students the opportunity to develop adequate knowledge, basic manual skills, and attitudes about surgical disease that should be encompassed by every practicing physician.

SURG 3006. Supervised Clinical Science Research. Credit Hours.
Students are required to participate in a clinical science project. Before students enroll in the course, they need to contact a surgery faculty member with whom they want to conduct a clinical science research project. In order to receive credit for this elective, a student must write a brief synopsis of the clinical science research project to include research purpose, methodology, and project (report, abstract, presentation, clinical protocol). A student must submit the synopsis with paperwork for approval of the elective. Midway during the elective (2 or 4 weeks), a student must submit a progress report to the Director of Surgical Education and the supervising surgery faculty member. At the end of the elective, the student must submit a final report to the Director of Surgical Education and to the supervising faculty member.

SURG 3010. Neurosurgery. Credit Hours.
Students function as "interns" on the neurosurgery service. They admit and discharge neurosurgery patients. They perform history and physical examinations, and keep daily records on neurosurgery patients. They follow patients in the outpatient clinics, in the emergency department, in the intensive care units, and on general wards. They participate in operations for their patients. They participate in pre and post-operative care of neurosurgery patients. They present cases, attend all conferences, and take call as designated by the neurosurgery service. They learn how to obtain a history and perform a focused neuroexamination on a patient with brain and spinal cord injury. They are encouraged to participate in basic or clinical science research projects with neurosurgical faculty.

SURG 3012. Oral Maxillofacial. Credit Hours.
Students function as "interns" on the oral maxillofacial surgery service. They admit and discharge oral maxillofacial patients. They perform history and physical examinations, and keep daily records on oral maxillofacial patients. They follow patients in the outpatient clinics, in the emergency department, in the intensive care units, and on general wards. They participate in operations for their patients. They participate in pre- and post-operative care of oral maxillofacial issues including outpatient sedation and anesthesia, dentoalveolar surgery, facial fractures, facial aesthetic and reconstructive surgery, management of facial and dental pain, and management of facial infections.
SURG 3026. Plastic Surgery. Credit Hours.
Students function as "interns" on the plastic surgery service. They admit and discharge plastic surgery patients. They perform history and physical examinations, and keep daily records on plastic surgery patients. They follow patients in the outpatient clinics, in the emergency department, in the intensive care units, and on general wards. They participate in operations for their patients. They participate in pre- and post-operative care of plastic surgery patients. They present cases, attend all conferences, and take call as designated by the plastic surgery service.
They have exposure to a wide range of plastic surgery issues including complex wound management, aesthetic plastic surgery, facial fractures, reconstructive surgery of the head and neck, and breast, hand, and extremity.

SURG 3031. Transplant Surgery. Credit Hours.
Students function as "interns" on the transplant surgery service. They admit and discharge transplant patients. They perform history and physical examinations, and keep daily records on transplant patients. They follow patients in the outpatient clinics, in the emergency department, in the intensive care units, and on general wards. They participate actively in live renal and liver donor evaluation. They participate in operations for their patients, including liver resection and renal, pancreas, and liver transplants. They participate in the evaluation and procurement of the multi-organ cadaveric donor. They participate in pre- and post-operative care of transplant patients. They present cases, attend all conferences, and take call as designated by the transplant service. They present patients at formal multidisciplinary transplant rounds daily. They have much contact with gastroenterologists and nephrologists who care for patients on the transplant service. The students rotate at University Hospital and Santa Rosa Northwest Medical Center.

SURG 3037. Pediatric Surgery. Credit Hours.
Students function as "interns" under private practice pediatric surgeons who are clinical faculty at the Health Science Center. They admit and discharge pediatric surgery patients. They perform history and physical examinations, and keep daily records on pediatric surgery patients. They follow patients in the outpatient clinics, in the emergency department, in the intensive care units, and on general wards. They participate in operations for their patients. They participate in pre- and post-operative care of pediatric surgery patients. They present cases, attend all conferences, and take call as designated by the transplant service. They present patients at formal multidisciplinary transplant rounds daily. They have much contact with gastroenterologists and nephrologists who care for patients on the transplant service. The students rotate at University Hospital and Santa Rosa Northwest Medical Center.

SURG 3038. Vascular Surgery. Credit Hours.
Students function as "interns" on each vascular surgery UH/VA service. They admit and discharge vascular surgery UH/VA patients. They perform history and physical examinations, and keep daily records on vascular surgery UH/VA patients. They follow vascular surgery UH/VA patients in the outpatient clinics, in the emergency department, in the intensive care units, and on general wards. They participate in operations for their patients. They present in pre- and post-operative care of vascular surgery UH/VA patients. They present cases, attend all conferences, and take call as designated by the service. Students have the opportunity to learn to perform a complete vascular physical examination and learn to interpret vascular diagnostic studies. They will have the opportunity to learn the finer details of endovascular treatment of vascular diseases.

SURG 3201. General Surgery-Harlingen. Credit Hours.
Students function as "interns" on this broad-based general and laparoscopic surgery service. They admit and discharge general surgical patients. They perform history and physical examinations, and keep daily records on general surgical patients. They follow general surgical patients in the outpatient clinics, in the emergency department, in the intensive care units, and on general wards. They participate in operations for their patients. They participate in pre- and post-operative care of general surgical patients. They present cases, attend all conferences, and take call as designated by the general surgical service.

SURG 3042. General Surgery A. Credit Hours.
Students function as "interns" on this broad-based general and laparoscopic surgery service. They admit and discharge general surgical patients. They perform history and physical examinations, and keep daily records on general surgical patients. They follow general surgical patients in the outpatient clinics, in the emergency department, in the intensive care units, and on general wards. They participate in operations for their patients. They participate in pre- and post-operative care of general surgical patients. They present cases, attend all conferences, and take call as designated by the general surgical service.

SURG 3043. General Surgery B. Credit Hours.
Students function as "interns" on this broad-based general and laparoscopic surgery service. They admit and discharge general surgical patients. They perform history and physical examinations, and keep daily records on general surgical patients. They follow general surgical patients in the outpatient clinics, in the emergency department, in the intensive care units, and on general wards. They participate in operations for their patients. They participate in pre- and post-operative care of general surgical patients. They present cases, attend all conferences, and take call as designated by the general surgical service.

SURG 3047. Emergency Surgery. Credit Hours.
Students function as "interns" on this emergency and trauma surgery service. They admit and discharge surgical patients. They perform history and physical examinations, and keep daily records on surgical patients. Although students will examine most patients in the emergency department, students will also examine patients in outpatient clinics, in intensive care units, and on general wards. They participate in operations for their patients. They participate in pre- and post-operative care of emergency and trauma surgical patients. They present cases, attend all conferences, and take call as designated by the service.

Students function as "interns" on each vascular surgery UH/VA service. They admit and discharge vascular surgery UH/VA patients. They perform history and physical examinations, and keep daily records on vascular surgery UH/VA patients. They follow vascular surgery UH/VA patients in the outpatient clinics, in the emergency department, in the intensive care units, and on general wards. They participate in operations for their patients. They participate in pre- and post-operative care of vascular surgery UH/VA patients. They present cases, attend all conferences, and take call as designated by the service. Students have the opportunity to learn to perform a complete vascular physical examination and learn to interpret vascular diagnostic studies. They will have the opportunity to learn the finer details of endovascular treatment of vascular diseases.

SURG 3201. General Surgery-Harlingen. Credit Hours.
Students function as "interns" under private practice general surgeons who are clinical faculty at the Regional Academic Health Center. They admit and discharge surgical patients. They perform history and physical examinations, and keep daily records on surgical patients. They follow patients in the outpatient clinics, in the emergency department, in the intensive care units, and on general wards. They participate in operations for their patients. They participate in pre- and post-operative care of surgical patients. They present cases, attend all conferences, and take call as designated by the surgical service.
SURG 3202. Clinical Anesthesiology-Harlingen. Credit Hours.
Students function as "interns" under private practice anesthesiologists who are clinical faculty at the Regional Academic Health Center. They perform preoperative anesthetic assessment on surgical patients in the outpatient clinics, in the ICUs, and on the general wards. They develop appreciation for medical conditions that affect choice of anesthetic agent. They have the opportunity to develop expertise in local, regional, and general anesthesia management. They have the opportunity to develop expertise in airway management. They have the opportunity to become knowledgeable in induction and maintenance anesthetic agents. They have the opportunity to develop expertise in intraoperative monitoring techniques of the anesthetized patient. They follow patients in the recovery room and develop appreciation for complications that may occur in the intra- and post-operative period. They present cases, attend all conferences, and take call as designated by the service.

SURG 3300. Elective General Surgery Preceptorship with Clinical Faculty. Credit Hours.
Third year medical students on the elective will be paired 1:1 with faculty members and will participate in direct patient care in the clinical faculty’s outpatient clinics as well as the elective operative schedule. Over the course of the four week elective, students will paired with faculty members so that they are exposed to the various surgical conditions that general surgeons care for in their practice. Unique aspects of this rotation will include exposure to advanced laparoscopic techniques, flexible endoscopy, and a combination of exposure to academic and private practice sites. Additionally, the student will be expected to complete a simulation-based technical skills curriculum tailored to the third year medical student. The technical skills curriculum will include four proficiency-based components: basic suturing and knot-tying, intermediate suturing and knot-tying, laparoscopic camera navigation and introduction to flexible endoscopy. The student's grade will be based on clinic and/or attendance and completion of the technical skills curricula.

SURG 4000. Special Topic. 4 Credit Hours.
This is a self-designed course created by both the student and the department to cover a specific topic. A Course Approval Form must be completed along with documentation of the designed course description.

SURG 4002. Surgical Oncology. 4 Credit Hours.
Senior students must function as "interns" on the surgical oncology service. They admit and discharge surgical oncology patients. They perform history and physical examinations, and keep daily records on surgical oncology patients. They follow patients in the outpatient clinics, in the emergency department, in the intensive care units and on general wards. They participate in operations for their patients. They participate in pre-and post-operative care of surgical oncology patients. They present cases, attend all conferences, and take call as designated by the surgical oncology service. They mentor third-year medical students on the surgical oncology service. They may participate in basic science research projects in the surgical oncology laboratory and in ongoing clinical trials of cancer diagnosis and management.

SURG 4004. Supervised Basic Science Research. 4 Credit Hours.
Senior students are required to participate in a basic science project in a research laboratory. Before students enroll in the course, they must contact a surgery faculty member with whom they want to conduct a basic science research project. In order to receive credit for this elective, a student must write a brief synopsis of the basic science research project including: research purpose, methodology, and project (report, abstract, presentation, experiments). The students must submit the synopsis with paperwork for approval of the elective. Midway during the elective (2 or 4 weeks), a student must submit a progress report to the Director of Surgical Education and the supervising surgery faculty member. At the end of the elective, a student will submit a final report to the Director of Surgical Education and the supervising faculty member, Texas Diabetes Institute.

SURG 4006. Supervised Clinical Science Research. 4 Credit Hours.
Senior students are required to participate in a clinical science project. Before students enroll in the course, they need to contact a surgery faculty member with whom they want to conduct a clinical science research project. In order to receive credit for this elective, a student must write a brief synopsis of the clinical science research project including: research purpose, methodology, and project (report, abstract, presentation, clinical protocol). A student must submit the synopsis with paperwork for approval of the elective. Midway during the elective (2 or 4 weeks), a student must submit a progress report to the Director of Surgical Education and the supervising surgery faculty member. At the end of the elective, the student must submit a final report to the Director of Surgical Education and to the supervising faculty member.

SURG 4007. General Surgery Selective-BAMC/Burn Unit. 4 Credit Hours.
Senior students may take a general surgery clerkship at BAMC. They may also take a clerkship at the Burn Unit at the U. S. Army Institute of Surgical Research at Fort Sam Houston. Senior students function as "interns" on each service. They admit and discharge surgical patients. They perform history and physical examinations, and keep daily records on surgical patients. They follow patients in the outpatient clinics, in the emergency department, in the intensive care units, and on general wards. They participate in operations for their patients. They participate in pre- and post-operative care of surgical patients. They present cases, attend all conferences, and take call as designated by the service. Students who participate on the Burn Unit have good exposure to the diagnosis, resuscitation, and treatment of critically ill patients.

SURG 4012. Oral Maxillofacial Surgery. 4 Credit Hours.
Senior students function as "interns" on the oral maxillofacial surgery service. They admit and discharge oral maxillofacial patients. They perform history and physical examinations, and keep daily records on oral maxillofacial patients. They follow patients in the outpatient clinics, in the emergency department, in the intensive care units, and on general wards. They participate in operations for their patients. They participate in pre- and post-operative care of oral maxillofacial issues including outpatient sedation and anesthesia, dentoalveolar surgery, facial fractures, facial aesthetic and reconstructive surgery, management of facial and dental pain, and management of facial infections.
SURG 4026. Plastic Surgery Selective. 4 Credit Hours.
Senior students function as "interns" on the plastic surgery service. They admit and discharge plastic surgery patients. They perform history and physical examinations, and keep daily records on plastic surgery patients. They follow patients in the outpatient clinics, in the emergency department, in the intensive care units, and on general wards. They participate in operations for their patients. They participate in pre- and post-operative care of plastic surgery patients. They present cases, attend all conferences, and take call as designated by the plastic surgery service. They mentor third-year medical students on the plastic surgery service. They have exposure to a wide range of plastic surgery issues including complex wound management, aesthetic plastic surgery, facial fractures, reconstructive surgery of the head and neck, and breast, hand, and extremity.

SURG 4031. Transplant Surgery Selective. 4 Credit Hours.
Senior students function as "interns" on the transplant surgery service. They admit and discharge transplant patients. They perform history and physical examinations, and keep daily records on transplant patients. They follow patients in the outpatient clinics, in the emergency department, in the intensive care units, and on general wards. They participate actively in live renal and liver donor evaluation. They participate in operations for their patients, including liver resection and renal, pancreas, and liver transplants. They participate in the evaluation and procurement of the multiorgan cadaveric donor. They participate in pre- and post-operative care of transplant patients. They present cases, attend all conferences, and take call as designated by the transplant service. They present patients at formal multidisciplinary transplant rounds daily. They mentor third-year medical students on the transplant service. They have much contact with gastroenterologists and nephrologists who care for patients on the transplant service. The students rotate at University Hospital and Santa Rosa Northwest Medical Center.

SURG 4037. Pediatric Surgery Selective. 4 Credit Hours.
Senior students function as "interns" under private practice pediatric surgeons who are clinical faculty at the Health Science Center. They admit and discharge pediatric surgery patients. They perform history and physical examinations, and keep daily records on pediatric surgery patients. They follow patients in the outpatient clinics, in the emergency department, in the intensive care units, and on general wards. They participate in operations for their patients. They participate in pre- and post-operative care of pediatric surgery patients. They present cases, attend all conferences, and take call as designated by the pediatric surgery service. They mentor third-year medical students on the pediatric surgery service. This rotation is intended for students who seek a career in pediatric surgery or primary care pediatrics. Opportunities for clinical research projects are available. The students rotate at Santa Rosa Children's Hospital.

SURG 4038. Rural Surgery Elective. 4 Credit Hours.
In this rotation, senior students work with a private practice general surgeon in a rural setting. Senior students function as a "junior partners" on this general surgery service. They admit and discharge general surgery patients. They perform history and physical examinations, and keep daily records on general surgery patients. They follow patients in the outpatient clinics, in the emergency department, in the intensive care units, and on general wards. They participate in operations for their patients. They participate in pre- and post-operative care of general surgery patients. They take call as designated by the surgeon. The objectives of this rotation are: to introduce students to the socioeconomic problems that rural patients face with access to care, to discover how the internet and distance learning decrease isolation in rural communities, to encourage students to consider surgical practice in underserved rural communities. Housing for the student will be provided during the rotation.

SURG 4040. Surgical Critical Care Selective. 4 Credit Hours.
This course provides senior students with a broad exposure to surgical critical care. Students rotate through the surgical trauma ICU and have the opportunity to gain a great understanding of the principles and practice of surgical critical care. The student will have good exposure to cardiovascular and pulmonary physiology. They will have the opportunity to learn about modern concepts of resuscitation, ventilator management, vasopressor support, nutritional support, and infection control. They will have opportunity to place central lines, PA catheters, arterial lines, and perform intubation and bronchoscopy. They will have opportunity to examine and manage critically ill and injured patients in the ICU and keep medical records daily. They will have opportunity to present patients on formal rounds daily and participate in didactic critical care conference and trauma morbidity and mortality conference. They will have opportunity to take call as designated by the service.

SURG 4042. General Surgery A. 4 Credit Hours.
Senior students function as "interns" on this broad-based general and laparoscopic surgery service. They admit and discharge general surgical patients. They perform history and physical examinations, and keep daily records on general surgical patients. They follow general surgical patients in the outpatient clinics, in the emergency department, in the intensive care units, and on general wards. They participate in operations for their patients. They participate in pre- and post-operative care of general surgical patients. They present cases, attend all conferences, and take call as designated by the general surgical service. They mentor third-year medical students on the service.

SURG 4043. General Surgery B. 4 Credit Hours.
Senior students function as "interns" on this broad-based general and laparoscopic surgery service. They admit and discharge general surgical patients. They perform history and physical examinations, and keep daily records on general surgical patients. They follow general surgical patients in the outpatient clinics, in the emergency department, in the intensive care units, and on general wards. They participate in operations for their patients. They participate in pre- and post-operative care of general surgical patients. They present cases, attend all conferences, and take call as designated by the general surgical service. They mentor third-year medical students on the service.
SURG 4044. General Surgery VA. 4 Credit Hours.
Senior students function as "interns" on this broad-based general surgery VA service. They admit and discharge general surgical VA patients. They perform history and physical examinations, and keep daily records on general surgical VA patients. They follow general surgical VA patients in the outpatient clinics, in the emergency department, in the intensive care units, and on general wards. They participate in operations for their patients. They present cases, attend all conferences, and take call as designated by the service. They mentor third-year medical students on the general surgical VA service.

SURG 4047. Emergency Surgery. 4 Credit Hours.
Senior students function as "interns" on this emergency and trauma surgery service. They admit and discharge surgical patients. They perform history and physical examinations, and keep daily records on surgical patients. Although students will examine most patients in the emergency department, students will also examine patients in outpatient clinics, in intensive care units, and on general wards. They participate in operations for their patients. They participate in pre- and post-operative care of emergency and trauma surgical patients. They present cases, attend all conferences, and take call as designated by the service. They mentor third-year medical students on the emergency and trauma surgery service.

SURG 4048. Vascular Surgery University Hospital/VA Hospital. 4 Credit Hours.
Senior students function as "interns" on each vascular surgery UH/VA service. They admit and discharge vascular surgery UH/VA patients. They perform history and physical examinations, and keep daily records on vascular surgery UH/VA patients. They follow vascular surgery UH/VA patients in the outpatient clinics, in the emergency department, in the intensive care units, and on general wards. They participate in operations for their patients. They participate in pre- and post-operative care of vascular surgery UH/VA patients. They present cases, attend all conferences, and take call as designated by the service. They mentor third-year medical students on the vascular surgery UH/VA service. Students have the opportunity to learn to perform a complete vascular physical examination and learn to interpret vascular diagnostic studies. They will have the opportunity to learn the finer details of endovascular treatment of vascular diseases.

SURG 4049. Surgical Internship Readiness. 4 Credit Hours.
The purpose of this elective is to prepare senior medical students who are interested in a surgical career for their surgery internship. This elective is a surgical "boot camp" to provide practical "hands on" experience for students. Prerequisites: general surgery subinternship; critical-care rotation. Students can do a critical care rotation in the SICU, MICU, PICU, or CCU. These mandatory prerequisites can occur at the Health Science Center or at a remote site.

SURG 4201. General Surgery-Harlingen. 4 Credit Hours.
Senior students function as "interns" under private practice general surgeons who are clinical faculty at the Regional Academic Health Center. They admit and discharge surgical patients. They perform history and physical examinations, and keep daily records on surgical patients. They follow patients in the outpatient clinics, in the emergency department, in the intensive care units, and on general wards. They participate in operations for their patients. They participate in pre- and post-operative care of surgical patients. They present cases, attend all conferences, and take call as designated by the surgical service. They mentor third-year medical students on the surgical service.

SURG 4202. Clinical Anesthesiology-Harlingen. 4 Credit Hours.
Senior students function as "interns" under private practice anesthesiologists who are clinical faculty at the Regional Academic Health Center. They perform preoperative anesthetic assessment on surgical patients in the outpatient clinics, in the ICUs, and on the general wards. They develop appreciation for medical conditions that affect choice of anesthetic agent. They have the opportunity to develop expertise in local, regional, and general anesthesia management. They have the opportunity to develop expertise in airway management. They have the opportunity to become knowledgeable in induction and maintenance anesthetic agents. They have the opportunity to develop expertise in intraoperative monitoring techniques of the anesthetized patient. They follow patients in the recovery room and develop appreciation for complications that may occur in the intra- and post-operative period. They present cases, attend all conferences, and take call as designated by the service. They mentor third-year medical students on the designated service.

SURG 5001. Oral Maxillofacial Surgery Clinical Skills Course. 8 Credit Hours.
The goal of Clinical Skills module is to develop the student’s bedside diagnostic skills. As a result of course lectures, readings, labs, longitudinal preceptor experience, and other Clinical Skills (CS) activities, you will be able to: (1) Perform a full history and physical and recognize specific abnormalities; (2) Record the history and physical examination in a coherent, standardized manner; (3) Construct a problem list and differential diagnosis based on the history and physical exam findings; (4) Deliver a concise organized oral presentation of the history and physical and interpretation of the findings in a standardized format.

SURG 7000. Off Campus. 1-42 Credit Hours.
All off campus rotations must be approved by the designated faculty member prior to the beginning of the rotation (at least one week before the course begins). Credit will not be given for any rotation that has not been approved in advance. Required paperwork includes: “Course Approval” form, a written letter or email for acceptance form the physician preceptor with the start and end dates of the course/rotation, and a course description of your learning objectives and responsibilities during the rotation. Forms must include a complete address and telephone number for the off campus location or residence address for the student while at the off campus site. Forms will not be approved after the rotation has already begun. Contact the department for assistance with enrolling in this course.
Urology (UROL)

Courses

UROL 3027. Urology. Credit Hours.
Third-year students will be exposed to nearly all facets of inpatient and outpatient adult and pediatric urology, including in the clinic, inpatient consult, emergency room, and ambulatory surgery center. Students will round twice daily with their inpatient team and accompany and assist team members with their daily activities. Depending on the site, these supervised activities will include managing postoperative and non-operative room at the various hospitals and ambulatory surgery center, and evaluating patients in the outpatient clinic. In addition, students will attend a variety of didactic conferences including Urology Grand Rounds, Morbidity & Mortality Conference, Preoperative Conference, Urodynamics Conference, and GU Oncology Conference. Students will hone their skills in taking a genitourinary history and performing a GU physical examination, with particular emphasis on the digital rectal exam and male genital exam. Students will have the opportunity to perform supervised minor procedures such as urethral catheterization and cystoscopy. Students will be asked to present a 10-minute lecture to Urology faculty and residents on a urologic topic of their choice near the end of their rotation.

UROL 4000. Special Topic. 4 Credit Hours.
Students will work with faculty in the design, preparation for and execution of basic science or clinical research projects. Translational research studies may be available and are encouraged. Some projects will require that funding or IRB approval be obtained prior to initiation so students are encouraged to discuss their proposed projects well in advance with the appropriate faculty. Participation in some existing projects with faculty that are already in progress may be possible as well.

UROL 4027. Urology Selective. 4 Credit Hours.
Senior students are required to function as "interns" on the Urology service; perform history and physical examinations; keep daily records on urology patients; follow patients in the outpatient clinics, in the emergency department, in the intensive care units, and on general wards; participate in operations for their patients and in pre- and post-operative care of urology patients; present cases, attend all conferences, and take call as designated by the urology service; mentor third-year medical students on the urology service; and present one 10- to 15-minute lecture on a urologic topic of their choice. They are encouraged to participate in basic and clinical science research projects with urology faculty.

UROL 7000. Off Campus. 4 Credit Hours.
Senior students are required to function as "interns" on the Urology service; perform history and physical examinations; keep daily records on urology patients; follow patients in the outpatient clinics, in the emergency department, in the intensive care units, and on general wards; participate in operations for their patients and in pre- and post-operative care of urology patients; present cases, attend all conferences, and take call as designated by the urology service; mentor third-year medical students on the urology service; and present one 10- to 15-minute lecture on a urologic topic of their choice. They are encouraged to participate in basic and clinical science research projects with urology faculty.
Faculty

Amina (El Jamali) Akoulouze-Bika, AS,BS,MS,PhD
Hanna Abboud, MD
Muhammad Abdul-Ghani, BS,BMS,MD
Gregory Abrahamian, BS,MD
Ashley Acheson, BS,PhD
Martin Adamo, BS,MS,PhD
Sandra Adams, BS,MD,MS
Todd Agan, AA,BS
Animesh Agarwal, BS,MD
Ricardo Aguiar, MD,PhD
Christine Aguilar, MS,MD,MPH
Alfonso Aguilera, DDS
Joseph Agyin, BS,MS,PhD,MBA
Samiya Ahmad, BM BS
S. Ahmed, BS,MD
Seema Ahuja, BM BS
Sunil Ahuja, MD,MS
Armen Akopian, BS,MS,PhD
Muhammad Akram, MD
Peggy Alexander, BS,DDS,MPH
John Alfonso, BA,MD
Fozia Ali, BS,BM BS
Wilson Altmeyer, BS,MD
Bennett Amaechi, BS,BDS,MS,PhD
Patricia Amerson, BSN,MSN
Sarah Ammerman, PhD
Nancy Amodei, BS,MA,PhD
Kent Anderson, DPL,AA,BS,PhD,MD
Christine Andre, BA,MD
J. Jeffrey Andrews, BA,MD
John Andrews, BS,DDS
Luis Angel, BS,MD
Gregory Anstead, BS,BS,PhD,MD
Antonio Anzueto, BS,MD
Michelle Arandes, BA,MD
Mazen Arar, MD
Theodore Arevalo, BS,MD
Amy Arisco, MD, BA,MD,MS
Veronica Armijo-Garcia, BS,MD
Jodi Gonzalez Arnold, BA,MS,PhD
Rector Arya, BS,MA,BEd,MEd,PhD
Reto Asmis, PhD
Chatchawin Assanasen, BA,MD
Sidney Atkinson, BA,BA,MD
Gregory Aune, PhD,MD
KoKo Aung, MD,MPH
Steven Austad, BA,BA,PhD
Charles Austin, BS,MD
Patricia Avant, DPL,BSN,MSN,PhD
Robert Badgett, BA,MD
Martha Baez, BS,MPH
Yidong Bai, BA,MA,MS,PhD
Brigitte Bailey, BS,MD
Steven Bailey, BA,MD
Vidal Balderas, AS,AAS,BA,DDS,MPH
Joshua Balsam, BS,MS,MPAS
Abhik Bandyopadhyay, BS,MS,PhD
Sanjay Bansal, BS,MS,PhD
Douglas Barber, BS,MD
Concepcion Barboza-Arguello, DDS
Nasser Barghi, DDS,MA
Timothy Barker, AS,MD
Jeffrey Barnes, BS,PhD
Karin Barnes, BS,MS,PhD
Maria Barnes, BSN,MSN
Constance Barone, BS,MD
Viktor Bartanusz, MD,DPL
Deborah Baruch-Bienen, BS,MD,MA
Joel Baseman, BS,MS,PhD
Joseph Basler, MD, BA,MA,MA,PhD,MD
Richard Bauer, BApAS, MD, MS
Christian Bauerfeld, MD
Oralia Bazaldua, BS, PharmD
Carlos Bazan, AB, MD
Marvin Bearden, BS, MA
Alison Beck, MA, PhD
Joseph Becker, BS, MD
Diana Beckmann-Mendez, BSN, MSN, PhD
Michael Beckstead, BS, PhD
Saloua Benmansour, BS, MS, PhD
Christine Benton, BS, MD
Kelly Berg, BS, MS, PhD
Ruth Berggren, BA, MD
Molly Bergman, BS, PhD
Michael Berkus, BS, MA, MD
Andrea Berndt, BS, MS, PhD
Michael Berton, BS, PhD
Arunabh Bhattacharya, BS, MS, PhD
Roland Bhavaraju-Sanka, BM BS, MPH
Alexander Bishop, BS, PhD
Cynthia Blanco, BS, MD, MS
James Bland, BSN, MSN
Bonnie Blankmeyer, AA, BA, MA, PhD
Karen Block, BS, PhD
Tabatha Blount, BS, MA, PhD
M. Danet Bluhm, BS, BSN, BS, PhD
Ralph Blumhardt, MD
Erik Boatman, BA, MD
Irene Bober-Moken, BA, MS, DMD, MPH
David Bohnenkamp, DDS, BA, MS
John Boldt, BA, MD
James Bonson, BApAS, MPAS
Rebecca Bonugli, BSN, MSN, PhD
Elisa Borah, BA, PhD
Santanu Bose, BS, PhD
J. Edgar Bost, MD, MBA

Robert Bourquein, DDS, DDS, MS
Charles Bowden, BS, MD
James Bower, BS, PhD
Krista Bowers, BS, MD
Gregory Bowling, BS, MD
Jason Bowling, BA, MD
Terri Boyce, BSN, MSN, MSN
Jaime Boyd, ADN, BSN, MSN
Thomas Boyer, BS, BS, PhD
Carrie Jo Braden, BSN, MS, MS, PhD
Nicole Braida, BA, BS, MD
Lois Bready, BA, MD
Andrew Brenner, BS, PhD, MD
Robert Brenner, BS, MS, PhD
Eileen Breslin, DPL, BS, MS, PhD
Robin Brey, MD
Emre Brookes, BS, MS, PhD
Edward Brooks, BS, MD
Karen Brown, BA, BSN, MPH, MSN
Renee Brown, BS, PhD
Thomas Brown, BS, MD
Jan Bruder, BA, BS, MD
Sonja Brune, ADN, MSN, BSN
Eugenia Bryan, MD
Gabriela Brzankalski, BS, MD
Robert Brzyski, BA, PhD, MD
Rochelle Buffenstein, BS, PhD
Della Bullock, BBA, BS, MD
Leonid Bunegin, BS
Sandra Burge, BS, MS, PhD
David Burgess, BS, BS, PharmD
Jim Burk, BS, DDS
Tyler Burnett, BA, MS
Cheryl Burns, BS, BS, MS
David Bush, BS, PhD, MD
Henry Bussey, AS, AAS, BS, PharmD
William Butler, BS,AAS,BA
Bruce Butterfras, BS,MS
Jose Cadena Zuluaga, BA,MD
Patience Cain, BSN,MSN
John Calhoon, BS,MD
Carol Campbell, BS,MD
Fred Campbell, BS,MD
Edith Canby-Hagino, BS,MD
Adelita Cantu, BSN,MS,PhD
Angelene Cantwell, BA
Janie Canty-Mitchell, DPL,AS,BSN,MSN,PhD
David Cappelli, BS,MPH,DMD,PhD
Deborah Cardell, BS,MD
Jennifer Carew, BS,PhD
Lee Carlisle, BS,MD
Merrill Carolin, BS,MD
Jean-Louis Caron M.D., FRCSC, FACS, MD
Andrea Carpenter, BS,MS,PhD,MD
Aimee Carswell, BA,MD
John Carter, BS,MD
Victoria Carter, AA,BS,MD
Deborah Carver, BS,MD
Jessica Castorena, BSN,MSN
Jose Cavazos, MD,PhD
Eugenio Cersosimo, MD,PhD
Maria Jose Cervantes Mendez, DDS
Patricia Chalela, BS,MPH,DPH
Steven Chaffin, BS,MD
Suman Challa, BDS,MS
Tien-Cheng Chang, BS,MS,PhD
Deowall Chattar-Cora, BA,MD
Bandana Chatterjee, BS,MS,PhD
Asish Chaudhuri, BS,MS,PhD
Shuo Chen, MD,MD,PhD
Xiao-Dong Chen, MD,MS,PhD,MS
Yidong Chen, BS,MS,PhD
Benxu Cheng, BS,MS,PhD
Robert Chilton, BS,DO
Kedar Chintapalli, MD
Laura Chiodo, BA,MD,MPH
Barbara Christy, BS,PhD
Lianrui Chu, MD,MS
Yong-Hee Chun, DDS,MS,PhD
Charlotte Clare, BA,MD
Robert Clark, AB,MD
Ewell Clarke, BS,MD
Patricia Clarke, BS,BSN,MSN
William Clarke, BS,MS,PhD
Autumn Clegg, BA,MOT
James Cleveland, BSN,DPL,MSN
Lisa Cleveland, BSN,MSN,PhD
Douglas Cobb, AA,BS,MS
David Cochran, BA,MS,DDS,PhD,MMS
Jannine Cody, AA,BS,MS,PhD
Stephen Cohn, BA,MD
Joseph Connor, DDS,MA
Dennis Conrad, BA,MD
Claudia Contreras, DDS
Deborah Conway, BS,MD
Jeffrey Cordes, BA,MD
Fred Corley, BS,MD
John Cornell, BA,MA,PhD
Betty Corona, BSN,MSN,MSN
Oscar Cortes, MD,MBA
Arthur Cortez, BA,MD
Eddie Cortez, BA,DDS
Maria Cortez, BA,MD
Griselda Cossio, BS,MA,MPAS,BHS
Jon Courand, BS,MD
Alan Cox, MD
David Cox, BS,DDS
Wendy Crabbe, BSN,MSN
Douglas Cromack, BS, MD
Karine Crow, BS, MSN, PhD
Richard Crowner, BA, MA, PhD, MD
Dianne Cruz, BA, MS
Sue Cunningham, BS, MS, PhD
Tyler Curiel, BS, MD, MPH
Christopher Curzon, BA, DO
Patricia Dahia, MD, PhD
Denise Dahm, BA, MD
Steven Dallas, BMS
Benjamin Daniel, BS, MS, PhD
Thomas Darm, BA
Nitin Das, BM BS
Albana Dassori, MD, MPH
Susan Daubner, BS, PhD
Rochelle David, BS, MD
Patricia Davidson, BSN, MSN
LaCresa Davis, MSN
Matthew Davis, BA, MD
Merritt Davis, BS, DO
Michael Davis, BA, MS, PhD
Michael Dawes, BA, MD
Lynette Daws, BS, PhD
Daniel DeArmond, BA, MD
Ralph DeFronzo, M.D., BS, BMS, MS, MD
Christopher DeLallo, BS, MPAS
David Dean, BS, PhD
Ilene Decker, BSN, MSN, PhD
Mark Dedmon, BS, MPAS
Inmaculada Del Rincón, BS, MD, MS
Pedro Delgado, BS, MD, MA
Janice Deng, MD, MHS
Rochelle Dennis, BA, MD
John Denny, Ph.D., BS, MS, PhD
Daniel Dent, BS, MD
Stacey Denver, BSN, MSN
Carol Deresz Barrera, BSN, MSN
Sonal Desai, BA, MD
Marc Deschaine, AAS, BS, MPAS
Mark DiBurro, BApAS, MPH
Holly DiLeo, BSN, MSN, PhD
Karen Diaz, BA, MD
Murat Dicicaglio, MD, PhD
Anh Dinh, BA, MD
Anibal Diogenes, DDS, MS, PhD
William Dodge, BS, DDS
Bruno Doiron, BS, MS, PhD
Katherine Dondanville, BS, MA
Lily Dong, BS, PhD
Kevin Donly, AA, BS, DDS, MS
Marion Donohoe, BA, ADN, MSN, PhD
Nella Dornbluth, BA, MA, MD
Donald Dougherty, BS, AS, MS, PhD
John Downs, BA, MD
Meredith Draper, BA, MEd, PhD
Peter Dube, BA, PhD
Donald Dudley, BA, MD
Daniel Dumitru, BA, MD, PhD
Sally Dunlap, BA, PhD
Betty Dunn, BS, MS
Mary Dunn, BS, MS, PhD
Timothy Duong, BS, BS, MS, MS
Brian Eastridge, BS, MS
Benjamin Eaton, BA, PhD
Terry Eaton, AAS, BFA
Jaime Echartea Gonzalez, MD
Maxim Eckmann, MD
Florence Eddins-Folensbee, BS, MD
Carlton Eddy, BA, MS, PhD
Nancy Edwards, AAS
Sandra Ehlers, BA, MD
Aamir Ehsan, MD
The University of Texas Health Science Center at San Antonio

Fadi El-Merhi, MD
Rafael Elenes, BS,MS,MD
Gary Elliott, BS,MD
Edward Ellis, BS,DDS
Leanne Embry, BA,MA,PhD
Nida Emko, BS,MD
Tony Eng, BS,MD
Dana English, BS,MS,EdD
John Erikson, BS,PhD,MD
Gregory Ernst, BS,MPT,PhD
Agustin Escalante, AB,BS,MD
Dorinda Escamilla-Padilla, ADN,BSN,MSN
Socorro Escandon, DPL,BS,BSN,MSN,PhD
Gladys Escobar, DVM
Sara Espinoza, BS,MD,MS
Rachael Esquibel, BS,BSN,MSN
Carlos Esquivel, BS,MS,PhD
Robert Esterl, BS,MD
Roberto Fajardo, BA,MA,PhD
Michael Falk, BSN,MSN
Hongxin Fan, MD,MS
Paolo Fanti, MD
Marc Feldman, BS,MD
Denis Feliers, BS,MS,PhD
Rebecca Fenton, ADN,BSN,MSN,PhD
Gabriel Fernandes, BS,MS,PhD
Elizabeth Fernandez, BS,MS,PhD
Miguel Fernandez, BA,MD
Patricia Fernandez, MD,DPL
Cristian Fernandez-Falcon, MD
Robert Ferrer, BA,MD,MPH
Kristin Fiebelkorn, M.D., BA,MD
Brooke Fina, BA
Richard Finlayson, DDS
Margaret Finley, ADN,BSN,MD
Kathleen Fischer, BA,MA,PhD
Barbara Fishman, BS,MD
Paul Fitzpatrick, PhD
Amanda Flagg, BSN,MSN,PhD
Amy Flores, BS,MD
Bertha Flores, BSN,MSN,PhD
John Floyd, BS,DPL,MD
Julianne Flynn, BS,MD
William Flynn, BA,MS,MD
Franco Folli, MD,MD,PhD
Lark Ford, BSN,MSN
Mark Foreman, BS,MD
Peter Forsberg, AA,BA,MA
Sheri Fossler, BS,MS
Byron Foster, BS,MPH,MD
Annette Fothergill, BS,MA,MBA
D Foulds, MD
Peter Fox, BA,MD
Sandra Fox, BS
Charles France, BA,MA,PhD
Edvira Franco, AAS,BSN,MSN
J. Christopher Franka, BA,MD
LaDonia Franke, AA,BS,MS
Christina Fraser, BA,MD
Alan Frazer, BS,PhD
Michael Freckleton, BS,BS,MD
Mark Fredrickson, MD
James Freeman, BS,MS,PhD
Christopher Frei, BS,PharmD,MS
Cesar Freytes, BS,MD
Curtis Froehlich, BS,MD
Constance Fry, MD
Mark Funk, BBA,MD
Antonio Furino, JD,MA,PhD
Wieslaw Furmaga, MD
Maria Gaczynska, PhD,BS
Peter Gakunga, BDS,MS,PhD
<table>
<thead>
<tr>
<th>Name</th>
<th>Degree Details</th>
</tr>
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<tbody>
<tr>
<td>Kenneth Galfo</td>
<td>BS, MMS</td>
</tr>
<tr>
<td>Kipling Gallion</td>
<td>BA, AS, MS</td>
</tr>
<tr>
<td>Veronica Galvan</td>
<td>MS, PhD</td>
</tr>
<tr>
<td>Hector Garcia</td>
<td>BA</td>
</tr>
<tr>
<td>Lily Garcia</td>
<td>BA, DDS, MS</td>
</tr>
<tr>
<td>Louis Garcia</td>
<td>BS, DDS</td>
</tr>
<tr>
<td>Maria Garcia</td>
<td>BS, DDS</td>
</tr>
<tr>
<td>Sean Garcia</td>
<td>BS, MD</td>
</tr>
<tr>
<td>Erica Garcia-Frausto</td>
<td>BSN, MSN</td>
</tr>
<tr>
<td>Donna Gardner</td>
<td>AAS, BS, MS, DPH</td>
</tr>
<tr>
<td>Wayne Gardner</td>
<td>AS, BS, DDS, MS</td>
</tr>
<tr>
<td>Rachel Garvin</td>
<td>M.D., BSN, MD</td>
</tr>
<tr>
<td>Jesus Garza-Tamez</td>
<td>BS, MD</td>
</tr>
<tr>
<td>Michael Geelhoed</td>
<td>BA, BHS, MPT, DPT</td>
</tr>
<tr>
<td>Hassem Geha</td>
<td>DPL, DPL, MS</td>
</tr>
<tr>
<td>Jonathan Gelfond</td>
<td>BS, BS, BA, MD, DPH</td>
</tr>
<tr>
<td>Lisa Gerak</td>
<td>BS, PhD</td>
</tr>
<tr>
<td>Margit Gerardi</td>
<td>BSN, MS, MS, MSN, PhD</td>
</tr>
<tr>
<td>Rita Ghosh</td>
<td>MS, PhD</td>
</tr>
<tr>
<td>Sagar Ghosh</td>
<td>BS, MS, PhD</td>
</tr>
<tr>
<td>Sangeeta Ghosh</td>
<td>PhD</td>
</tr>
<tr>
<td>Goutam Ghosh-Choudhury</td>
<td>BS, MS, PhD</td>
</tr>
<tr>
<td>Nandini Ghosh-Choudhury</td>
<td>BS, MS, PhD</td>
</tr>
<tr>
<td>Darlene Gilcreast</td>
<td>BS, MS, PhD</td>
</tr>
<tr>
<td>John Gildersleeve</td>
<td>DDS</td>
</tr>
<tr>
<td>Sara Gill</td>
<td>BSN, MSN, PhD</td>
</tr>
<tr>
<td>Marijan Gillard</td>
<td>BS, MD</td>
</tr>
<tr>
<td>Bonny Gillis</td>
<td>BS, MD</td>
</tr>
<tr>
<td>Brett Ginsburg</td>
<td>BS, PhD</td>
</tr>
<tr>
<td>Milena Girotti</td>
<td>BS, PhD</td>
</tr>
<tr>
<td>Andrea Giuffrida</td>
<td>BA, BS, PhD, MS</td>
</tr>
<tr>
<td>Patrick Glasow</td>
<td>BA, MD</td>
</tr>
<tr>
<td>Birgit Glass</td>
<td>BS, DDS, MS</td>
</tr>
<tr>
<td>Randolph Glickman</td>
<td>AB, PhD</td>
</tr>
<tr>
<td>Fabian Gomez</td>
<td>BS, MPAS</td>
</tr>
<tr>
<td>Jorge Gomez</td>
<td>BS, MS, MD</td>
</tr>
<tr>
<td>Lizette Gomez</td>
<td>BS, MD</td>
</tr>
<tr>
<td>Angel Gomez-Cintron</td>
<td>BA, MPH, MD</td>
</tr>
<tr>
<td>Alice Gong</td>
<td>BS, MD</td>
</tr>
<tr>
<td>Cara Gonzales</td>
<td>BS, PhD, DDS</td>
</tr>
<tr>
<td>Melanie Gonzalez</td>
<td>BS</td>
</tr>
<tr>
<td>Kara Goodspeed</td>
<td>BSN, MSN</td>
</tr>
<tr>
<td>Gregory Goodwiler</td>
<td>BS, MS</td>
</tr>
<tr>
<td>Phyllis Gordon</td>
<td>BSN, MSN</td>
</tr>
<tr>
<td>Yves Gorin</td>
<td>BS, MS, PhD</td>
</tr>
<tr>
<td>Georgianna Gould</td>
<td>BS, MS, PhD</td>
</tr>
<tr>
<td>Jodi Grabinski</td>
<td>PharmD, MS</td>
</tr>
<tr>
<td>Lori Grant</td>
<td>BS, MEd</td>
</tr>
<tr>
<td>Adriana Green</td>
<td>DDS, MPH</td>
</tr>
<tr>
<td>Kimatha Grice</td>
<td>BS, MOT</td>
</tr>
<tr>
<td>Glenn Gross</td>
<td>BA, MD</td>
</tr>
<tr>
<td>Jennifer Guajardo</td>
<td>BA, MS, PhD</td>
</tr>
<tr>
<td>Jesus Guajardo</td>
<td>DPL, MD, DPL, MHS, PhD</td>
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Elizabeth Hanson, BS, MA, MD
Stephen Hardies, BS, PhD
Kenneth Hargreaves, BA, MS, DDS, PhD
Christie Harper, AAS, BSN, MSN
Stephen Harris, BA, MA, PhD
Cathleen Harrison, BS, MD
Joseph Harrison, BA, PhD
Mary Hart, AAS, BS, MS
Matthew Hart, BA, PhD
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Anthony Hartzler, BA, MD
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Amrita Kamat (nee Bhakta), BS, MS, PhD
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Lauren Kane, BS, MD
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Thirumalai Kannan, BS, PhD, PhD
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T. Keeton, BS, MA, PhD
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Dean Kellogg, BA, MA, MD, PhD
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Nameer Kirma, BS, MS, PhD
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Craig Klugman, BA, MA, MA, PhD
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Wouter Koek, BS, MS, PhD
Jim Koeller, BS, MS
VenkataSubbaRao Kolaparthi, BS, MS, PhD
David Kolodrubetz, BA, PhD
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Edward Kost, BA, MD
Kristy Kosub, BA,MD
Ellen Kraig, AS,PhD
Eric Kraus, BA,MD
Stephen Kraus, M.D., BS,MD,MS
Keith Krollick, BS,PhD
Ghazwan Kroma, MD
George Kudolo, BS,PhD,BS
John Kuhn, BS,PharmD
Kaparaboyna Kumar, BApAS,MD
Addanki Kumar, Ph.D., BS,MS,PhD
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Richard Lamb, AB,PhD
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Sharon Lewis, BS,MS,PhD
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Cun Li, MD
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Jinqi Li, MD
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Senlin Li, BS,MS,MD
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Michael Lichtenstein, BS,MD,MS
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Alan Lin, BS,MA,PhD
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Meilian Liu, BS,MD,PhD
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Daniel Lodge, BS,BS,PhD
Alexandra Loffredo, BA,BS,MD
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Jorge Lopera, MD
Patricia Lopez, DDS
Reenie Lopez, BA,MA,MPAS
Marisa Lopez-Cruzan, BS,PhD
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<tr>
<th>Name</th>
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<tr>
<td>Carlos Lorenzo</td>
<td>MD,PhD</td>
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<td>Juanita Lozano-Pineda</td>
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Michael Odom, BA,MD
Kelin Ogburn, MD
Vijayanadh Ojili, BM BS,MD
Jessica Oldham, BSN,MSN
Erica Oliveira, DDS,MPH
Boyce Oliver, BA,MD
Rene Oliveros, BS,MD
John Olson, BA,BS,MD,PhD
Norma Olvera, BS,DDS,MS
Rene Olvera, BA,MD,MPH
Carlos Orihuela, BS,PhD
Carisse Orsi, BA,MD
Catherine Ortega, BA,MA,MPT,EdD
Manuel Oscs-Sanchez, BA,MD
Sandra Osswald, BA,MD
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Babatunde Oyajobi, BM BS,MS,PhD,MBA
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Robert Page, BS
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Michael Palladino, BS,DPM
Deborah Pallister, ADN,BSN,MSN
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Deborah Parra-Medina, BA,MPH,PhD
Helen Parsons, BA,MPH,PhD
Mickey Parsons, BSN,MS,MS,PhD
Mary Partida, BA,DDS,MPH
Neela Patel, BS,MD,MPH
Sandeep Patel, BS,DO
Jan Patterson, BA,MD,MS
Thomas Patterson, BA,MD
Jennifer Peel, BA,MS,PhD
Luiz Penalva, BS,MS,PhD
Jiangnan Peng, BS,MS,PhD
Dennis Peppas, BS,MD
Roger Perales, BA,MPH
Cristobal Perez, BS
Daniel Perez Osorio, DDS
Wiley Perkins, BS,MD
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Elizabeth Perz, BS,MS,PharmD
Jay Peters, BA,BA,MD
Jean Petershack, BS,MD
Alan Peterson, BA,MS,PhD
Alison Peterson, BSN,MSN
Sophia Pia, BA,PhD
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Clinton Pietz, BS,MD
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Steven Pliszka, BA,MD
Jose Pluguez, AAS,BS
Maria Luisa Policarpio-Nicolas, BS,MD
Marilyn Pollack, AB,MA,PhD
William Rogers, BA,MD
Linda Roman, BS,PhD
Raquel Romero, BS,MD,AA,MPh
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Corinna Ross, BS,MA,PhD
Jeanette Ross, MD
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Aaron Rossett, BSN,MSN
Donald Royall, BS,BS,MD
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Laura Ryan, BMS,PharmD,MS
Stacy Ryan, BA,MA,PhD
Jiyoung Ryu, BS,MS,PhD
Pothana Saikumar, BS,MS,PhD
Alan Sakaguchi, BA,MS,PhD
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Felipe Salinas, BA,BS,BA,PhD
Umber Salman, MD
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Sandra San Miguel de Majors, BA,MS
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William Sanns, AAS,BA
Daniel Santa Maria, BApAS,MD
Alfredo Santillan-Gomez, MD,MPh
John Sarantopoulos, BS,MD
Issa Sasa, BDS,MS
Deepa Sathyaseelan, BS,MS,PhD
Michele Saunders, BA,DMD,MS,MPh
Martha Schatz, BA,MD
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Jason Schillerstrom, BS,MD
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Carolina Schlenker, MD,MPh
Lawrence Schoenfeld, BA,MA,PhD
Jennifer Schreiner, BA
James Schroeder, BS,MA,PhD
Karen Schulz, BS,MS
Ivy Schwartz, BA,MS,DDS
Wayne Schwesinger, BS,MD
Virginia Scofield, BA,PhD
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Anthony Scott, BA,MA,PhD
Frank Scribbick III, BS,MD
Richard Seals, BS,DDS,MEd,MS
Adriana Segura, BS,DDS,MS
Raj Sehgal, BS,MD
Steven Seidner, BA,MD
Ali Seifi, M.D., F.A.C.P., MD
Deborah Seigler, BHS,MPAS
Alexandre Seillier, BS,MS,MS,DPL,PhD
Jennifer Seltzer, BS,BS,PharmD
David Senn, DDS
Philip Serwer, AAS,MS,PhD
Shafqat Shah, BA,MD
Rochelle Shain, BA,MA,PhD
Stephen Shanfield, BA,MD
Mark Shapiro, BA,PhD
Francis Sharkey, BS,MD
Ramaswamy Sharma, BS,BS,MS,PhD
Zelton Sharp, BA,BS,PhD
Virginia Shaw, BSN,MSN
Maureen Sheehan, BA,MD,MS,MHS
Qiang Shen, BS,MS,PhD
Kelsey Sherburne, BS,MD
Suzette Tardif, BS, PhD
James Tarpley, BSN, MSN
Melanie Taverna, BFA, MS
Barbara Taylor, BA, MD, MS
Richard Taylor, BS, MD, MS
Rae Taylor-Childress, BA, MD
Erica Teixeira, DDS, MS, PhD
Fabricio Teixeira, DDS, MS, PhD
Rajeshwar Tekmal, BS, MS, PhD
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Peter Thompson, BA, MS, MD
Ian Thompson, Jr., BS, MD
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Holly Van Remmen, BS, PhD
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Mary Vaughan, BA, PhD
Giacomo Vecil, BS, MS, MD
Noel Vega, BS
Leonel Vela, AB, BS, MD, MPH
Gopalrao Velagaleti, BS, MS, PhD
Chakradhar Velagapudi, MS, PhD
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Dawn Velligan, BA, MA, PhD
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Gordon Verber, AA, BA, MD
Ronald Verrett, BS, DDS, MS
Filomena Hazel Villa, BS, MD
Alfredo Villarreal, DPL, AAS, BS, BS, MPAS
Marianela Villarreal, DDS
Theresa Villarreal, AAS, AAS, BSN, MSN
Lance Villers, BS, MA, PhD
Roseann Vivanco, ADN, BSN, MSN
Jack Vizuete, BS, DDS
Kristine Vogel, BA, BA, PhD
Brent Wagner, BS, BA, MS, MD
Della Wagner, ADN, MSN, BSN
Joshua Walker, AS, BS
Mary Walker, AS, AA, BPAS, BSN, MSN
Cynthia Wall, BA, BSN, MSN
Benjamin Wallisch, BA, DO
Nicolas Walsh, BS, MS, MD
Consuelo Waltz-Bass, BS, MS, PhD
Christi Walter, BS, PhD
Elizabeth Walter, BS, MD
Glenn Walters, BS, DDS
Guangming Zhong, MD, MS, PhD
Chong Zhu, MS, MS
Richard Zimmermann, BS, DDS
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