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Mail Code 7702
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San Antonio, Texas 78229-3900

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Catalog for Five Schools

This Catalog contains program offerings of all five schools which constitute The University of Texas Health Science Center at San Antonio:
• Dental School,
• Graduate School of Biomedical Sciences,
• Medical School,
• School of Allied Health Sciences, and
• School of Nursing.

The General Information section contains material common to all schools. Programs and policies specific to the respective schools appear in the appropriate school's section.

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Larry Barnes, PhD
Associate Dean, Graduate School of Biomedical Sciences

Leonel Vela, MD, PhD
Regional Dean, Regional Academic Health Center (RAHC), Medical School

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Senior Associate Dean and Associate Dean for Academic Affairs, Medical School
UTHSCSA Department Chairs

**Allied Health Sciences**
Clinical Laboratory Sciences
Shirlyn B. McKenzie, PhD

Deaf Education and Hearing Science
Elizabeth M. Wilkes, PhD

Dental Hygiene
Juanita S. Wallace, PhD, RDH

Dental Laboratory Technology
Roosevelt Davis, MS, CDT

Emergency Health Sciences
Lance C. Villers, MA

Occupational Therapy
Karin J. Barnes, PhD, OTR (Interim)

Physical Therapy
Giovanni De Domenico, PhD

Physician Assistant Studies
J. Dennis Blessing, PhD, PA-C

Respiratory Care
Robert Wilkins, PhD, RRT, FAARC

**Basic Sciences (Graduate School)**

Biochemistry
Bruce J. Nicholson, PhD

Cellular & Structural Biology
Christi Walter, PhD

Microbiology and Immunology
Joel B. Baseman, PhD

Molecular Medicine
Z. Dave Sharp, PhD (Interim)

Pathology
Robert L. Reddick, MD

Pharmacology
Alan Frazer, PhD

Physiology
David S. Weiss, PhD

**Dental Sciences**
Community Dentistry
John P. Brown, BDSc, MS, PhD

Dental Diagnostic Science
Spencer Redding, DDS, MEd (Interim)

Endodontics
Kenneth M. Hargreaves, DDS, PhD

General Dentistry
Joseph M. Berrong, DDS

Oral & Maxillofacial Surgery
Stephen B. Milam, DDS, PhD

Orthodontics
John D. Rugh, PhD

Pediatric Dentistry
Kevin J. Donly, DDS, MS

Periodontics
David L. Cochran, DDS, PhD

Prosthodontics
Lily T. Garcia, DDS, MS

Restorative Dentistry
James B. Summit, DDS, MS

**Medical Sciences**

Anesthesiology
Christopher Bracken, MD, PhD (Interim)

Family & Community Medicine
Carlos Roberto Jaen, MD, PhD

Internal Medicine
Robert A. Clark, MD

Neurology
David F. Jimenez, MD

Obstetrics & Gynecology
Robert S. Schenken, MD

Ophthalmology
Wichard A. J. van Heuven, MD

Orthopaedics
Ronald F. Williams, MD, PhD

Otolaryngology-Head & Neck Surgery
Randal A. Otto, MD

Pediatrics
Thomas C. Mayes, MD, MBA

Psychiatry
Pedro Delgado, MD

Radiation Oncology
Tony Eng, MD (Interim)

Radiology
Gerald D. Dodd, III, MD

Rehabilitation Medicine
Nicolas E. Walsh, MD

Surgery
Stephen M. Cohn, MD

Urology
Ian M. Thompson, Jr MD

**Nursing**

Acute Nursing Care
Nancy J. Girard, PhD, RN, FAAN

Chronic Nursing Care
Adrienne D. Linton, PhD, RN

Family Nursing Care
Kay C. Avant, PhD, RN, FAAN
The Faculty listing herein is based on data received in the fall of 2004 from the chairs of the UTHSCSA departments and programs listed below. An alphabetical Index of Faculty follows, beginning on page 38.

**Graduate School Basic Sciences Departments**

### Biochemistry

**Professor and Chair**
- *Nicholson, Bruce J*  
  PhD/Cal Tech

**Professor and Deputy Chair**
- *Barnes, Larry D*  
  PhD/UCLA

**Professor/Robert A Welch Distinguished Chair in Chemistry**
- *Masters, Bettie Sue Siler*  
  PhD/Duke

**Professor**
- *Horowitz, Paul M*  
  PhD/Chicago
- *Lafer, Eileen*  
  PhD/Tufts
- *Lee, John C*  
  PhD/Purdue
- *Luduena, Richard F*  
  PhD/Stanford
- *McAlister-Henn, Lee*  
  PhD/UTHSC Dallas
- *Nall, Barry T*  
  PhD/Stanford
- *Olson, Merle S*  
  PhD/Minnesota
- *Robinson, Neal C*  
  PhD/Washington
- *Serwer, Philip*  
  PhD/Harvard
- *Sousa, Rui J*  
  PhD/Harvard

**Associate Professor**
- *Adamo, Martin L*  
  PhD/Houston
- *Hardies, Stephen C*  
  PhD/Wisconsin-Madison
- *Hart, P John*  
  PhD/UT Austin
- *Hinck, Andrew P*  
  PhD/Wisconsin-Madison
- *Jiang, Jean X*  
  PhD/SUNY Stony Brook

**Adjunct Professor**
- *Pavel, Martasek*  
  MD, PhD/Charles Univ

**Assistant Professor**
- *Demeler, Borries*  
  PhD/Oregon State
- *Kim, Chongwoo*  
  PhD/ Johns Hopkins

**Assistant Professor/Research**
- *Banerjee, Asok*  
  PhD/Calcutta, India
- *Chaudhuri, Asish R*  
  PhD/Calcutta

**Professor Emeritus**
- *Nishimura, Jonathan S*  
  PhD/California-Berkeley
- *Miller, Sanford A*  
  PhD/Rutgers

**Professor Emeritus**
- *Masters, Bettie Sue Siler*  
  PhD/Duke

**Graduate Faculty**
- *Steffensen, Bjorn/Periodontics*
- *Venkatachalam, Manjeri A/Pathology*

**Associate Professor**
- *Liu, Feng/Pharmacology*

**Assistant Professor**
- *Naski, Michael/Pathology*

### Biomedical Engineering (UTHSCSA faculty)

**Professor**
- *Agrawal, C Mauli*  
  PhD/Duke
- *Bailey, Steven R*  
  MD/Oregon HSC
- *Dean, David D*  
  PhD/N Carolina-Chapel Hill

**Assistant Professor**
- *Demeler, Borries*  
  PhD/Oregon State
- *Kim, Chongwoo*  
  PhD/Johns Hopkins
- *Banerjee, Asok*  
  PhD/Calcutta, India
- *Chaudhuri, Asish R*  
  PhD/Calcutta

**Professor Emeritus**
- *Nishimura, Jonathan S*  
  PhD/California-Berkeley
- *Miller, Sanford A*  
  PhD/Rutgers

**Graduate Faculty**
- *Steffensen, Bjorn/Periodontics*
- *Venkatachalam, Manjeri A/Pathology*

**Associate Professor**
- *Liu, Feng/Pharmacology*

**Assistant Professor**
- *Naski, Michael/Pathology*

**Professor**
- *Fox, Peter T*  
  MD/Georgetown
- *Lancaster, Jack L*  
  PhD/UT Southwestern Med Ctr
- *Palmez, Julio C*  
  MD/Natl U of La Plata, Argentina

**Professor Emeritus**
- *Masters, Bettie Sue Siler*  
  PhD/Duke

**Professor Emeritus**
- *Steffensen, Bjorn/Periodontics*
- *Venkatachalam, Manjeri A/Pathology*

**Associate Professor**
- *Liu, Feng/Pharmacology*

**Assistant Professor**
- *Naski, Michael/Pathology*

**Professor**
- *Rawls, H Ralph*  
  PhD/Florida State-Tallahassee
- **Shepherd, Albert P, Jr**  
  PhD/Mississippi Med Center
- *Sprague, Eugene A*  
  PhD/UTHSCSA
- *Walsh, Nicolas E*  
  MD/Colorado
Associate Professor
*Agarwal, Animesh
MD/UTHSCSA

*Feldman, Marc D
MD/Pennsylvania School of Medicine

Sylvia, Victor L
PhD/Texas A&M

Clinical Associate Professor
*Cohen, David
MD/UTHSCSA

Assistant Professor
Carnes, David L
PhD/Rice

Cellular and Structural Biology

Professor and Interim Chair
*Walter, Christi
PhD/Florida State

Professor Emeritus
Rennels, Edward G
PhD/Harvard
Adrian, Erle K, Jr
MD/Harvard
PhD/UTHSCSA

Professor
*Austad, Steven N
PhD/Purdue

*Herbert, Damon C
PhD/California-San Francisco

*Herman, Brian Alan
PhD/Connecticut HSC

*Jagadeeswaran, Purdur
PhD/Inst of Science-India

*Klebe, Robert J
PhD/Yale

*Kraig, Ellen B
PhD/Brandeis

*Leach, Robin L
PhD/Utah

*Lechleiter, James D
PhD/Arizona

*Moore, Charleen M
PhD/Tennessee

*Morgan, William W
PhD/Indiana

*Mundy, Gregory R
MD/Tasmania

*Naylor, Susan L
PhD/UTHSCSA

*Reiter, Russel J
DMED/Lodz, Poland
DMED/La Laguna, Spain
PhD/Bowman Grey

*Richardson, Arlan G
PhD/Oklahoma State

*Smith, Olivia Pereira
PhD/Worcester Polytech

Sun, LuZhe
PhD/Rutgers

*Williams, Vick
MD, PhD/UTHSCSA

Associate Professor
*Johnson, Linda Y
PhD/UTHSCSA

*King, Thomas C
PhD/S Carolina

*Larsen, Pamela L
PhD/Vanderbilt

*Sakaguchi, Alan Y
PhD/USC

*Strong, John R
PhD/UTHSCSA

*Vaughan, Mary K
PhD/UTHSCSA

*Weaker, Frank J
PhD/LSU

*Yang, Funmei
PhD/Washington

Assistant Professor
*Bai, Yidong
PhD/Columbia

*Bishop, Alexander
D Phil/Oxford

*Dong, Lily Q
PhD/Iowa State

*Elefteriou, Florent
D Phil/Princeton

*Keller, Charles
MD/Baylor

*Oyajobi, Babatunde
PhD/Sheffield Med

*Penalva, Luiz O
PhD/Madrid

*Podlutsky, Andreg
PhD/Kharkov State Univ

*Rahimi, Omid
PhD/Uniformed Services

*Van Remmen, Holly
PhD/UTHSCSA

*Vogel, Kristine S
PhD/Oregon

*Yang, Xiangli
PhD/Alabama

Senior Lecturer
*Philo, Ronald
PhD/UTHSCSA

*Richards, Fred
PhD/UTHSCSA

Research/Clinical Assistant Professor or Instructor
Agyin, Joseph
PhD/Purdue

Bandyopadhyay, Abhik
PhD/Calcutta

Carlberg, Kristen
PhD/Johns Hopkins

Frohlich, Victoria
PhD/Dartmouth

Gravekamp, Claudia
PhD/Netherlands

Padalecki, Susan
PhD/UTHSCSA

Stacy, Sue
PhD/UTHSCSA

Xu, Guogang
PhD/Shanghai Med

Zhang, Yingpei
PhD/Kyushu Univ

Other Graduate Faculty
*Camacho, Patricia
PhD/Bryn Mawr College

*Chatterjee, Bandana
PhD/Nebraska

*Christy, Barbara
PhD/

*Ferry, Robert J
MD/UTHSCSA

*Fox, Peter T
PhD/Georgetown

*Freeman, James W
PhD/Kentucky

*Graduate Faculty

*Graduate Faculty
**Microbiology & Immunology**

**Professor and Chair**
*Baseman, Joel B*  
PhD/Massachusetts

**Professor**
*Alderete, John F*  
PhD/Kansas

*Haldenwang, William G*  
PhD/UT Austin

*Kolodrubetz, David J*  
PhD/Brandeis

*Krolick, Keith A*  
PhD/UCLA

*Mattingly, Stephen J*  
PhD/Georgia

*Zhong, Guangming*  
PhD/Hunan Medical Univ

**Associate Professor/Research**
*Perdue, Sondra T*  
PhD/UCLA

**Assistant Professor**
*Bose, Santanu*  
PhD/Wisconsin

*Dhandayuthapani, Subramanian*  
PhD/U of Madras

*Dube, Peter*  
PhD/SUNY-Stony Brook

*Izumi, Kenneth*  
PhD/UCLA

*Xiang, Yan*  
PhD/Case Western Reserve

**Associate Professor/Research**
*Pina, Sophia*  
PhD/UTHSCSA

*Quituga, Teresa*  
PhD/UTHSCSA

*Stein, Murry*  
PhD/LSU Medical Center

**Instructor/Research**
*Kannan, TR*  
PhD/Mandurai Kamaraj U

*Musatovova, Oxana*  
PhD/Comenius

*Zhang, Shuyu*  
PhD/UT Austin

**Other Graduate Faculty**
*Ahuja, Sunil*  
MD/Armed Forces Medical College

*Gao, Shou-Jiang*  
PhD/Bordeaux, France

*Giavedoni, Luis*  
PhD/Nat’l U of Buenos Aires

*Guentzel, M Neal*  
PhD/UT Austin

*Jorgensen, James H*  
PhD/UTMB

*Kimata, Jason*  
PhD/Washington

*Klose, Karl E*  
PhD/California-Berkeley

*Kraig, Ellen B*  
PhD/Brandeis

*Lanford, Robert*  
PhD/Baylor

*Melby, Peter C*  
MD/Colorado

*Patterson, Jean*  
PhD/Notre Dame

*Teale, Judy M*  
PhD/Virginia

*Thomas, D Denne*  
PhD/Creighton

*Zhou, Paul*  
PhD/SUNY Buffalo

---

*Graduate Faculty*
Molecular Medicine

Associate Professor and Interim Chair
*Sharp, Zelton D
PhD/Arkansas

Professor
*Chatterjee, Bandana
PhD/Nebraska

Associate Professor
*Christy, Barbara A
PhD/Johns Hopkins
*Hasty, E Paul
DVM/Texas A&M

Assistant Professor
*Boyer, Thomas G
PhD/SUNY-Buffalo
*Gaczynska, Maria E
PhD/Lodz, Poland
*Lee, Sang Eun
PhD/Brown
*Rao, Hai
PhD/SUNY-Stony Brook

*Yew, P Renee
PhD/UCLA

Other Graduate Faculty
*Aboud, Hanna E
MD/Alexandria, Egypt
Medicine
*Boldt, David H
MD/Tufts
Medicine
*Clark, Robert A
MD/Columbia
Medicine
*Gao, Shou-Jiang
PhD/Bordeaux, France
Pediatrics
*Haile, David J
MD/Johns Hopkins
Medicine
*Hart, P John
PhD/UT Austin
Biochemistry

*McManus, Linda M
PhD/Colorado
*Mott, Glen E
PhD/Texas A&M
Olson, John D
MD/Georgetown
PhD/Minnesota
*Pinckard, R Neal
PhD/Edinburgh
*Rinaldi, Michael G
PhD/California-Davis
Sharkey, Francis E
MD/Cornell
Tio, Fermin O
MD/Cebu Inst, Philippines
*Troyer, Dean A
MD/Indiana
*Valente, Philip T
MD/Columbia
VandeBerg, John L
PhD/Macquarie, Australia
*Venkatachalam, Manjeri A
MBBS/Calcutta, India

*Hinck, Andrew P
PhD/Wisconsin-Madison
Biochemistry
*Kreisberg, Jeffrey I
PhD/Maryland
Surgery
*Mundy, Gregory R
MD/Tasmania
Cellular & Structural Biology
*Richardson, Arlan G
PhD/Oklahoma
Cellular & Structural Biology
*Tekmal, Rajeshwar Rao
PhD/Kurukshetra, India
Obstetrics & Gynecology
*Venkatachalam, Manjeri A
MBBS/Calcutta, India
Pathology
*Vijg, Jan
PhD/Leiden, The Netherlands
Physiology

Pathology

Chair and Townsend Professor
Reddick, Robert Lee
MD, MS/N Carolina-Chapel Hill

Professor
*Clare, C Nan
MD/UTHSCSA
Coalson, Jacqueline J
PhD/Oklahoma
*DiMaio, Vincent J M
MD/SUNY Downstate
Grimwood, Ronald E, Jr
MD/Ohio State
*Harrison, Chantal
MD/Florida
Jones, Anne Cale
DDS/Medical College of Virginia
Jorgensen, James H
PhD/UTMB Galveston
*McKenzie, Shirlyn B
PhD/Texas A&M
*McMahan, Clyde A
PhD/Rice

*McManus, Linda M
PhD/Colorado
*Mott, Glen E
PhD/Texas A&M
Olson, John D
MD/Georgetown
PhD/Minnesota
*Pinckard, R Neal
PhD/Edinburgh
*Rinaldi, Michael G
PhD/California-Davis
Sharkey, Francis E
MD/Cornell
Tio, Fermin O
MD/Cebu Inst, Philippines
*Troyer, Dean A
MD/Indiana
*Valente, Philip T
MD/Columbia
VandeBerg, John L
PhD/Macquarie, Australia
*Venkatachalam, Manjeri A
MBBS/Calcutta, India

Wolf, Robert H
DVM/Wake Forest

Clinical Professor
Yoder, Bradley
MD/Pittsburgh

Professor Emeritus
McGill, Henry C, Jr
MD/Vanderbilt

Associate Professor
Alderson, Gerald L
DDS, MD/Loma Linda
Fowler, Larry J
MD/Wayne State
McGuff, Howard S
DDS/UTHSCSA
Patterson, Jan E
MD/UTHSC Houston
Pollack, Marilyn
PhD/Rutgers
*Smith, Linda A
PhD/Texas A&M

*Graduate Faculty
Yeh, I-Tien  
MD/Arkansas  

**Associate Professor/Clinical**  
Heim-Hall, Josefine  
MD/Università degli Studi di Siena  
Schantz, H Daniel  
MBA/UT San Antonio  

**Associate Professor/Research**  
*Prihoda, Thomas J*  
PhD/Texas A&M  
Saikumar, Pothana  
PhD/Inst of Science-India  
Werner, Sherry  
MD/Maryland  

**Assistant Professor**  
Burns, Cheryl A  
MS/Minnesota  
Ehsan, Amir  
MBBS/Dow Medical College  
Kudolo, George B  
PhD/London  
Naski, Michael  
MD, PhD/Michigan  

**Assistant Professor/Clinical**  
Bryan, Eugenia  
MD/Mississippi  

**Assistant Professor/Research**  
Ghosh-Choudhury, Nandini  
PhD/McMaster, Canada  

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**Pharmacology**  

**Professor and Chair**  
*Frazer, Alan*  
PhD/Pennsylvania  

**Professor**  
*France, Charles*  
PhD/Michigan  
*Mifflin, Steven W*  
PhD/UTMB Galveston  
*Roberts, James*  
PhD/Oregon-Eugene  
*Shepherd, Alexander M M*  
MD/St Andrews-Scotland  
PhD/Dundee-Scotland  
*Ticku, Maharaj*  
PhD/SUNY-Buffalo  

**Associate Professor**  
*Clarke, William P*  
PhD/Wayne State  
*Cunningham, Thomas*  
PhD/University of Iowa  
*Hensler, Julie G*  
PhD/Northwestern  
*Keeton, Thomas K*  
PhD/UT Southwestern Medical School  
*Lam, Yui-Wing Francis*  
PharmD/Minnesota  
*Liu, Feng*  
PhD/Iowa State  
*Morilak, David A*  
PhD/Princeton  

*Strong, John R*  
PhD/UTHSC Houston  

**Assistant Professor**  
*Giuffrida, Andrea*  
PhD/Univ of Catania, Italy  
*Lu Xin-Yun*  
PhD/Washington State  
*Ranjan, Ravi*  
PhD/Tata Inst of Fund Res, India  
*Sanchez, Russell*  
PhD/NYU  

**Assistant Professor/Research**  
Berg, Kelly A  
MS/Central Michigan-Mt Pleasant  
Cheng, Benxu  
PhD/Auburn  
McMahon, Lance  
PhD/Texas A&M  
Mehta, Ashok K  
PhD/Panjab, India  
Zhang, Wei  
PhD/Washington State  

**Instructor/Research**  
Benmansour, Saloua  
PhD/Rowen, France  
Fernandez, Elizabeth  
PhD/Nevada  
Pieke-Dahl, Sandra  
PhD/U of Nebraska Medical Center  

**Instructor**  
Pate, Yogendra J  
MS/Baroda, India  

**Instructor/Research**  
Reinhold, Martina  
PhD/Washington-St Louis  

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**Other Graduate Faculty**  
*Cavazos, José*  
MD/Instituto Tecnologico y Estudios Superiores de Monterrey  
PhD/U of Wisconsin at Madison  
*Daws, Lynette*  
PhD/Flinders – Australia  
*Dong, Lily*  
PhD/Iowa State  
*Hargreaves, Kenneth*  
DDS/Georgetown  
PhD/Uniformed Services Univ of Health Sciences  
*Hausheer, Frederick*  
MD/Missouri  
*Henderson, George*  
PhD/Vanderbilt  
*Hinojosa-Laborde, Carmen*  
PhD/UTHSCSA  
*Jones, David*  
PhD/UTHSCSA  
*Koek, Wouter*  
PhD/Utrecht – Netherlands  

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*Graduate Faculty*
Physiology

Professor and Chair
*Weiss, David  
PhD/Baylor

Professor Emeritus
Bishop, Vernon S  
PhD/Mississippi
Kalu, Dike N  
PhD/London
Masoro, Edward J  
PhD/California-Berkeley
Mikiten, Terry M  
PhD/Albert Einstein College of Medicine, NY
Yu, Byung P  
PhD/Illinois

Professor
*Hornsby, Peter J  
PhD/London
*Johnson, John M  
PhD/UT Southwestern
*Nelson, James F  
PhD/USC
*Shepherd, Albert P, Jr  
PhD/Mississippi
*Vig, Jan  
PhD/Leiden

Associate Professor
*Camacho, Patricia  
PhD/Bryn Mawr
*Green, Gary M  
PhD/California-Berkeley
*Herlihy, Jeremiah T  
PhD/Virginia
*Propp, Duane W  
PhD/Washington
*Shapiro, Mark S  
PhD/Rush U Medical Center
*Stockand, James D  
PhD/UTHSC Houston
*Toney, Glenn M  
PhD/Louisville
*Ward, Walter F  
PhD/Marquette

Assistant Professor
*Brenner, Robert  
PhD/UT Austin
*Daws, Lynette C  
PhD/Flinders
*Rothberg, Brad S  
PhD/Florida

Other Graduate Faculty
*Dumitru, Daniel  
MD/Cincinnati
*Feldman, Marc D  
MD/Pennsylvania School of Medicine
*Fernandes, Gabriel  
PhD/Bombay
*Fox, Peter T  
MD/Georgetown
*Freeman, Gregory L  
MD/Loyola
*Glickman, Randolph D  
PhD/Toronto
*Katz, Michael S  
MD/Johns Hopkins
*Kellogg, Dean L, Jr  
MD, PhD/UTHSCSA
*Kiel, Jeffrey W  
PhD/UTHSCSA
*Richardson, Arlan G  
PhD/Oklahoma State
*Shain, Sydney A  
PhD/California-Berkeley
*VanRemmen, Holly  
PhD/UTHSCSA

*Graduate Faculty
Radiological Sciences

Professor and Interim Chair
*Dodd, Gerald D, III
MD/UT Houston

Professor
*Bowden, Charles L
PhD/Baylor College of Medicine
*Bower, James
PhD/Wisconsin
*Fox, Peter T
MD/Georgetown
*Fullerton, Gary D
PhD/Wisconsin
*Herman, Terence S
MD/Connecticut
*Hevezi, James M
PhD/Notre Dame
*Lancaster, Jack L
PhD/UTHSC Dallas
*McDavid, William D
PhD/UTHSCSA
*Meltz, Martin L
PhD/Rochester
*Phillips, William T
MD/UTMB Galveston
*Waggener, Robert G
PhD/UTHSC Houston

Associate Professor
*Clarke, Geoffrey
PhD/UTHSC Dallas
*Deahl, S Thomas
PhD/Iowa
*Gao, Jia-Hong
PhD/Yale
*Glickman, Randolph D
PhD/Toronto
*Goins, Beth A
PhD/Tennessee-Knoxville
*Natarajan, Mohan
PhD/Madras, India
*Soares, Jair
MD/U of Sao Paulo
*Sprague, Eugene A
PhD/UTHSCSA
*Thomas, Charles
MD/Illinois-Chicago

*Vijayalaxmi
PhD/SV University, India
*Wiatrowski, Wayne A
PhD/UTHSCSA
*Winters, Wendell D
PhD/Illinois

Assistant Professor
*Awashti, Vibhudutta
PhD/SGPIMS, India
*Brewer, Patricia A
PhD/Unifomed Services Univ of the Health Sciences
*Fuss, Martin
MD/Heidelberg, Germany
*Hardies, Lou Jean
PhD/UTHSCSA
*Jerabek, Paul
PhD/California-Irvine
*Kochunov, Peter
PhD/UTHSCSA
*Narayana, Shalini
PhD/Iowa
*Salter, Bill J
PhD/UTHSCSA

Adjunct Professor
*Hertel, Nolan
PhD/Illinois Urbana-Champaign
*Sardar, Dhiraj
PhD/Oklahoma State

Adjunct Associate Professor
*Bice, William Jr
PhD/Florida
*Cawthon, Michael
DO/Texas College of Osteopathic Medicine
*Edwin, Leidholdt
PhD/Virginia
*Goff, David Lee
PhD/UT Austin
*Marbach, James
PhD/UTHSC Houston
*Prestidge, Bradley
MD/Unifomed Services Univ of the Health Sciences

*Watts, Ronald
PhD/UTHSCSA

Adjunct Assistant Professor
*Blough, Melissa
PhD/UTHSCSA
*Charlton, Michael
PhD/Texas A&M
*Dullea, Michael
MD/USHUS
*Esquival, Carlos
PhD/UTHSCSA
*Feng, Ching Mei (Janet)
PhD/UTHSCSA
*Goff, David Lloyd
PhD/UCLA
*Hendricson, William
MA/Northwestern
*Keener, Carl
PhD/UTHSCSA
*Kiel, Jonathan
PhD/Texas Tech
*Landry, Al
MBA/Spencer
*Lee, Nina
PhD/UTHSCSA
*Levy, Louis
PhD/UTHSCSA
*Murphy, Michael
PhD/MIT
*Payne, William
PhD/UTHSCSA
*Prete, James
PhD/UTHSCSA
*Sadeghi, Amir
PhD/UTHSCSA
*Schneider, Sandra
PhD/UT Houston
*Shriver, Christy
MS/Texas A&M
*Vail, Neal
PhD/UT Austin
*Wang, Minghong
PhD/New Mexico State

*Graduate Faculty
### Dental School

#### Community Dentistry

**Professor and Chair**  
Brown, John P  
PhD/Queensland  
MS/Rochester

**Associate Professor**  
Cappelli, David P  
DMD/Pittsburgh  
MPH/Pittsburgh  
PhD/UTSPH Houston  
Neeanen, M Elaine  
DDS/Virginia  
MPH/UTSPH Houston  
MS/Columbia

**Professor**  
Dove, Stephen B  
DDS, MS/UTHSCSA  

Glass, Birgit J  
DDS, MA/UTHSCSA  

Guest, Gary F  
DDS/UTHSCSA  

Langlais, Robert P  
DDS/McGill  

MS/Indiana  

McDavid, William D  
PhD/UTHSCSA  

* Nummikoski, Pirkka V  

DDS/Helsinki  

MS/UTHSCSA

**Professor Emeritus**  
Andrews, John D  
DDS, EndoCert/VA Hospital-Long Beach  

Martin, Edwin J  
DDS, EndoCert/Baylor

**Clinical Professor**  
Schindler, William G  
DDS, MS/UTHSCSA  

EndoCert/Wilford Hall

**Associate Professor**  
Keiser, Karl  
DDS/Indiana  

MS, EndoCert/Michigan

---

#### Dental Diagnostic Science

**Professor and Chair**  
Hargreaves, Kenneth M  
DDS/Georgetown  

PhD/Uniformed Services

**Professor**  
Sharma, Poonam  
PhD/Memphis  

Steffensen, Jane E  
RDH, CHES, MPH/Michigan

**Associate Professor/Research**  
Dang, Howard  

PhD/Colorado  

Johnson-Alvares, Dorthea A  

MS/Washington

**Assistant Professor**  
Amaechi, Bennett  

MS/London  

PhD/Liverpool

**Clinical Assistant Professor**  
Balderas, Vidal G  

DDS/UTHSCSA  

Lozano-Pineda, Juanita  

DDS/UTHSCSA  

Reeves, Teresa  

DDS/UTHSCSA  

JD/St Mary’s San Antonio

**Clinical Assistant Professor**  
Dirks, Sarah  

DDS/UTHSCSA  

Vargas, Adriana  

DDS/UTHSCSA  

Senn, David  

DDS/UTDB Houston

**Assistant Professor/Research**  
Lin, Alan L  

PhD/William & Mary  

Papagerakis, Silvana  

MD/Craiova, Romania  

MSc/Paris  

PhD/Paris

---

#### Endodontics

**Professor and Chair**  
Baez, Martha X  

R DH, MPH/UTSPH Houston  

Cunningham, Sue  

RD, MS/Incarnate Word  

Porteous, Nuala B  

MPH/UTSPH Houston

**Clinical Professor**  
Andrews, John D  

DDS/Pennsylvania  

EndoCert/VA Hospital-Long Beach

**Associate Professor**  
Keiser, Karl  

DDS/Indiana  

MS, EndoCert/Michigan

---
### General Dentistry

**Professor and Chair**
Berrong, Joseph M  
DDS/UTDB Houston

**Professor**
Baez, Ramon J  
DDS/Javeriana, Colombia  
MPH/UTHSC Houston  
Dodge, William W  
DDS/USC  
Redding, Spencer  
DDS/N Carolina  
MD/New Orleans  
Segura-Donley, Adriana  
DDS/UTDB Houston  
MS/Iowa

**Professor/Clinical**
Alexander, Peggy  
DDS/Meharry  
MPH/UTHSC Houston

**Associate Professor**
Conn, Linc J, Jr  
DDS/UTHSCSA  
Gildersleeve, John R  
DDS/Tennessee  
Haveman, Carl  
DDS, MS/UTDB Houston  
Hermesch, Charles B  
DMD/Washington - Missouri  
Hicks, Jeffery L  
DDS/UTHSCSA  
Schwartz, Ivy S  
DDS/UTHSCSA  
MS/Baylor

**Assistant Professor and Program Director**
Schwartz, Scott A  
DDS/Temple  
EndoCert/Wilford Hall AFB

**Clinical Assistant Professor**
Calland, John W  
DDS, EndoCert/UTHSCSA

- Walters, Glenn R  
  DDS, EndoCert/UTDB  
  Houston
- Gilles, James A  
  DDS/Loyola  
  MS/George Washington  
  EndoCert/Fort Benning
- Schwartz, Richard S  
  DDS/Minnesota  
  GDR Cert/Lackland AFB  
  EndoCert/UTHSCSA

**Associate Professor/Clinical**
Weed, Roger  
DDS/UTDB Houston

**Clinical Associate Professor**
Hardage, Jack L  
DDS/Baylor  
Luce, Ernest B  
DDS/UTHSCSA Houston  
Snyder, David E  
DDS/Washington

**Assistant Professor**
Bohnenkamp, David M  
DDS/Iowa  
MS/UTHSCSA  
Esquivel-Upshaw, Josephine  
DMD/Philippines  
MS/Northwestern  
Galvan, Alicia  
DDS/UTHSCSA  
Guidry, John C  
DDS/LSU  
MS/UTHSCSA  
Haynes, Hazel  
DMD/Georgia  
MPH/UTHSC Houston  
Oliveira, Erica  
DDS/Bahia Fed U, Brazil  
MPH/UTHSC Houston  
Partida, M Norma  
DDS/UTHSCSA  
Rose, William F  
DDS/Indiana

- Berrong, Joseph M  
  DDS/UTDB Houston  
  Professor Emeritus
- Tilson, Hugh B  
  DDS/Baylor  
  MS/Oklahoma
- Spackman, Gregory K  
  DDS/Nebraska  
  MBA/Washington–St Louis
- Ross, Ridley O  
  DDS/UTHSCSA  
  Assistant Professor/Clinical
- Bradley, Laurie L  
  DDS/UTHSCSA
- Gardner, Wayne A  
  DDS/Medical College of Virginia  
  MS/UTHSCSA
- Bone, James S  
  DDS/UTHSCSA  
  Clinical Assistant Professor
- Lee, James Q  
  DDS/UTHSCSA
- Santos, Frank  
  DDS/UTDB Houston
- Scott, Kevin D  
  DDS/UTHSCSA
- Duggan, Michael C  
  DDS/Baltimore  
  Assistant Professor/Clinical
- Finlayson, Richard S  
  DDS/UTDB Houston
- Leonard, Dan D  
  DDS/Baylor

### Oral and Maxillofacial Surgery

**Professor and Chair**
Milam, Stephen B  
DDS, MA/Baylor  
PhD/UTHSCSA

**Professor Emeritus**
Tilson, Hugh B  
DDS/Baylor  
MS/Oklahoma

**Associate Professor**
Spackman, Gregory K  
DDS/Nebraska  
MBA/Washington–St Louis
Pediatric Dentistry

Professor and Chair
Donly, Kevin J
DDS/Iowa
MS/Iowa

Assistant Professor
Abadeer, Lisa M
DDS/Minnesota
Adetona, Omolola
BDS/Lagos, Nigeria

Assistant Professor
Davis, Romona L
DDS/UTHSCSA
Henson, Timothy J
DMD/Kentucky
Roldan, Rosie
MD/UTHSCSA
DMD/Philadelphia

Assistant Professor/Research
Chen, Shuo
MD, PhD/UTHSCSA

Dong, Juan
MD/Harbin, China
MS/PhD/Heidelberg, Germany

Clinical Assistant Professor
Cardenas-Dentchev, Lina M
DDS/Medellin, Colombia
PhD/Nagasaki, Japan
MS/N Carolina

Castellano, Joseph B
DDS/UTHSCSA Houston
Kennedy, Paul A, III  
DDS/U of the Pacific  
MS/Texas A&M

Marcushamer, Mauricio  
DDS/Mexico

Sawyer, Kelly K  
DDS/UTHSCSA

**Periodontics**

**Professor and Chair**
Garcia, Lily T  
DDS/Baylor  
MS/UTHSCSA

**Professor**
*Cronin, Robert J, Jr  
DDS/Georgetown  
MS/UTHSC Houston
Jones, John D  
DDS/Missouri
*Kaiser, David A  
DDS/Illinois  
MSD/Washington

**Associate Professor**
*Alvares, Olav F  
PhD/Illinois  
MS/Detroit
Arnold, Ralph M  
DMD/California-San Francisco  
MS/UTDB Houston
Jones, Archie A  
DDS/Missouri-Kansas City  
MBA/UT San Antonio
Mealey, Brian L  
DDS/UTHSCSA  
MS/UTHSCSA
Oates, Thomas W, Jr  
DMD/Pennsylvania  
PhD/Medical College of Virginia
Rowe, Peter S  
PhD/London  
BSc/Oxford
Thomas, D Denene  
PhD/Creighton

**Clinical Associate Professor**
Brunsvold, Michael A  
DDS/Iowa  
MS/Ohio State
JCroft, Lloyd K  
DDS/UTDB Houston  
Mills, Michael P  
DDS/Alabama-Birmingham  
MS/UTDB Houston

**Assistant Professor**
Boland, Edward J  
PhD/Notre Dame  
Carnes, David L, Jr  
PhD, MS/Rice  
Lasho, David J  
DDS/Minnesota  
MSD/Indiana

**Clinical Assistant Professor**
Masters, Lisa B  
DDS, MS/UTHSCSA  
Newbold, Dewey A  
DDS, MSD/Baylor

**Prosthodontics**

**Professor and Chair**
Garcia, Lily T  
DDS/Baylor  
MS/UTHSCSA

**Professor**
*Cronin, Robert J, Jr  
DDS/Georgetown  
MS/UTHSC Houston
Jones, John D  
DDS/Missouri
*Kaiser, David A  
DDS/Illinois  
MSD/Washington

**Professor Emeritus**
Feldmann, Earl E  
DDS/Illinois
Kuebker, William A  
DDS/Northwestern  
MS/Washington
Morrow, Robert M  
DDS/Missouri

**Associate Professor**
*Cavazos, Edmund, Jr  
DDS/Marquette  
Geertsema, James J  
DDS/Iowa
*Phoenix, Rodney D  
DDS/Ohio State  
MS/UTHSCSA

**Clinical Associate Professor**
Mansuetto, Michael A  
DDS/Pittsburgh  
MS/UTHSC Houston

**Assistant Professor**
*Hartman, Garrett E  
DDS/UTHSCSA  
Lang, Lisa A  
DDS/Michigan  
MS/UTHSCSA
*Verrett, Ronald  
DDS/UTHSCSA  
MS/UTHSC Houston

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*Graduate Faculty
Restorative Dentistry

Clinical Associate Professor

- Calverly, Mickey J
  DDS/UTDB Houston
- Girvan, Thomas B
  DMD/Oregon Dental School

Clinical Associate Professor (Part Time)

- Vickers, Victoria Ann
  DDS/UTHSCSA
- Yard, Robert A
  DDS/Missouri-Kansas City

Clinical Professor

- Summitt, James B
  DDS/Tennessee
  MS/UTHSC Houston
- Barghi, Nasser
  DDS/Tehran
  MA/UT San Antonio
- Rawls, H Ralph
  PhD/Florida State
- Holleron, Barry W
  DDS/UTHSCSA
  MS/UT San Antonio
- Trowbridge, Ronald C
  DDS/Baylor

Associate Professor

- Marshall, Thomas D
  DDS, MSED/Indiana
- Norling, Barry K
  PhD/Northwestern
- Troendle, Karen B
  DDS/UTHSCSA
  MPH/UTHSC Houston

Assistant Professor

- Cortez, Eddie M
  DDS/Marquette
- Giesey, Samuel C, Jr
  DDS/UTDB Houston
- Gutierrez, Jose
  DDS/UTHSCSA
- Kellogg, Karen
  DDS/UTHSCSA
- Morris, Lawrence Wayne
  DDS/UTHSCSA
- Orck, Bert H
  DDS/Baylor
- Parma, Rita R
  DDS/UTHSCSA
- Randol, Cheryl
  DDS/UTHSCSA
- Sullivan, Diane J
  DDS/Baylor

Assistant Professor/Research

- Satsangi, Neera
  PhD/Lucknow

Clinical Assistant Professor

- Boeselt, Bernard J
  DDS/UTHSCSA
- Buikema, Donald J
  DDS/Michigan
- Dahlberg, Gregory W
  DDS/UTHSCSA
- Fryling, Stephen E
  DDS/Maryland
- McAlister, Elizabeth H
  DDS/UTHSCSA
- Nield, Donald G
  DMD/Manitoba
- Park, Jacob G
  DDS/UTHSCSA
- Payne, Steven R
  DDS/UTHSCSA
- Watkins, Thomas R
  DDS/UTHSCSA
- Gureckis, Kevin M
  DMD/Tufts
- Nicholson, Jerry
  DDS/UTHSC Houston
  MA/UTHSCSA
- Overton, Johnie D
  DDS/UTHSCSA
- Whang, Kyumin
  PhD/Northwestern
- Wright, Edward F
  DDS/Case Western Reserve
  MS/Minnesota
Medical School

Anesthesiology

Professor and Interim Chair
Bracken, Christopher A
MD/UTHSCSA
PhD/Texas A&M

Professor
Bready, Lois L
MD/UTHSCSA
Gurkowski, Mary Ann
MD/UTHSCSA
Hickey, Rosemary
MD/Arkansas
Jones, David J
PhD/UTHSCSA
Orr, Malcolm D
MD/Queensland
PhD/Australian National U
Ramamurthy, Somayaji
MD/Kasturba, India
Rogers, James N
MD/Arizona
Welch, Gary
MD, PhD/School of Medicine-Charlottesville
JD/Lasalle
Wheeler, A Scott
MD/Oregon Medical School

Clinical Professor
Hadnott, William H
MD/UTMB Galveston
Hanftler, Charles
MD/Michigan
Knape, Kelly G
MD/UTHSCSA
Noorily, Susan H
MD/Michigan

Associate Professor
Anderson, Douglas M
MD/Tulane
Bunegin, Leonid
BS/Pittsburgh
Holmgreen, W Corbett
DDS/UTHSC Houston
MD/UTHSCSA
Kang, Wendy B
MD/UTSWMS Dallas
JD/SMU
Rasch, Deborah K
MD/UTMB Galveston
Shah, Jaydeep
MD/Med Coll of Virginia

Zuazu, Marcos
MD/Zaragoza, Spain

Clinical Associate Professor
Baust, Joanne
MD/Georgetown

Assistant Professor
Allen, Stacey
MD/UTHSCSA
Anderson, Franklin
MD/UT Houston Med School
Bitner, D Martin
MD/New Mexico-Albuquerque
Burgos, Alejandro
MD/UT Houston Med School
Campbell, Carol
MD/LSU
Combest, Sally
MD/UTHSCSA
Dumitrascu, George
MD/McGill-Montreal
Griffin, James
MEd/Virginia
Sehgal, Savitha
MD/JN Med Coll, Dharwad U
Verber, Gordon
MD/Washington
Walters, Tess
MD/Stanford Sch of Medicine
Wheeler, Mary E
MD/Baylor

Adjunct Associate Professor
Hinojosa-Laborde, Carmen
PhD/UTHSCSA

Clinical Assistant Professor
Aldredge, Carolyn
MD/Harvard Med College
Glasser, David
MD/UTHSCSA
Gonzalez, Abelardo
MD/UTHSCSA
Guerrero, Jorge A
MD/Guadalajara, Mexico
Johnson, Wendell
DO/UNTHSC-Fort Worth
Nguyen, Nhunh
MD/UTMB Galveston
Rubin, James
MD/UT Southwestern Med School
Stewart, Luther
MD/Meharry Med College-Nashville
Tyler, Debra S
MD/Texas Tech

Instructor
Ham, Dwayne
MD/UT Houston Med School

Clinical Instructor
Alvarado, Sergio
MD/UTHSCSA
Lopez, Gabriel
MD/UTHSC Houston

Chief Anesthesia Specialist
Tarpley, James R
MS/UTHSC Houston

Anesthesia Specialist
Bernatek, Thomas J
BSN/UTHSCSA
Brumfield, Louis
BS/UT Arlington
Cruz, Rini
AAS/New York
Domenico, Dawn
BS/Arizona State
Falk, Michael
MSN/UTHSCSA
Haren, Shawn
BS/Arizona State
Hobkins, Douglas P
MSN/Texas Wesleyan
Inglis, Fiona M
BSN/UTHSCSA
Jackson, Jeanette
MSN/UTMB Galveston
Kirk, James M
BSN/Valdosta, GA
Peterson, Alison
MSN/Baylor
Robichaux, Annette
NSN/Xavier, New Orleans
Saboo, Betsy A
BS/CSA State College, PA
Sherner, John H
MSN/UT El Paso
Weaver, John S
BS/Texas Woman’s U
Wilson, Laura
BSN/Washington-Washington, DC
Family and Community Medicine

Professor and Chair
Jaén, Carlos Roberto
MD, PhD/SUNY-Buffalo

Professor
Burge, Sandra K
PhD/Purdue
Espino, David V
MD/UTMB Galveston
Furino, Antonio
JD/Rome
PhD/Houston
Katerndahl, David A
MD/Illinois
Lawler, W Ross
MD/UTMB Galveston
Miller, Claudia S
PhD/Ohio State
Usatine, Richard
MD/Columbia Coll of Physicians & Surgeons

Professor/Clinical
Calmbach, Walter L
MD/UTHSCSA
Kumar, K Askok
MD/Osmania Med Coll, Hyderabad, India

Clinical Professor
Gaspard, James J, Jr
MD/LSU
Kvale, James
MD/Howard
Realini, Janet P
MD/California-San Francisco
Urby, Rodolfo M
MD/UT Houston

Associate Professor
Bedolla, Miguel A
MD/Nuevo Leon, Mexico
PhD/Ohio State
Legler, James D
MD/UTMB Galveston
Palmer, Raymond F
PhD/USC
Parchman, Michael Leo
MD/UT Southwestern
Schneider, F David
MD/Boston

Assistant Professor
Oscos, Ana
MD/UTHSCSA
Poursani, Ramin
MD/Cerrahpasa Med Sch, Istanbul U, Turkey
Ramirez-Colon, Miguel A
MD/Puerto Rico
Tovar, John
PharmD/Florida
Vargas, Leticia
MD/UTHSCSA

Clinical Assistant Professor
Aguilar, Leticia T
MD/UTHSCSA
Cortes, Carlos L
MD/Nueva Leon, Mexico
Dunlap, Sally M
PhD/Delaware
Hurd, Mark A
MD/UTHSCSA
Jules, Avril
MD/Wisconsin
Kottman, William David
MD/Texas A&M
Leibert, Bruce A
MD/Wayne State
Lotay, Harpreet
MD/Alberta/Edmonton, Canada
Moscrip, Cordelia
MD/UTHSC Houston
Reyes, Ramon G
MD/Ponce

Clinical Assistant Professor/Clinical Assistant Professor/Research
Larme, Ann
PhD/N Carolina-Chapel Hill

Assistant Professor/Research
Alford, Cynthia L
PhD/California-Berkeley
Villarreal, Roberto
MD/Mexico

Instructor/Clinical
Bayles, Bryan
PhD/Missouri
Garza-Tamez, Jesus Miguel
MD/Facultad de Medicina
Lopez, Alfredo
MD/UTHSCSA

Assistant Professor/Clinical
Aguilar, Leticia T
MD/UTHSCSA

Assistant Professor/Clinical
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Emko, Joy
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Mann-Seballos, Margaret
MD/Texas Tech
Naranjo, Jesus
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Oscos, Ana
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MD/Wisconsin
Kottman, William David
MD/Texas A&M
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Professor/Heyser Memorial Professorship
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   PhD/Free Univ-Berlin
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Academic Affairs/J Seitchik Chair
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Vijayalaxmi, Dr  
PhD/S V Univ, India  

**Assistant Professor**  
Lin, Bryan C  
MD/UTHSCSA  

Nayak, Bijaya K  
PhD/Institute of Life Sciences, India  

Salter, Bill J  
PhD/UTHSCSA  

Zaffar-Hayat, Farah  
MD/Fatima Jinnah Medical School, Pakistan  

**Clinical Professor**  
Hussey, David H  
MD/Washington School of Medicine, St Louis  

**Clinical Associate Professor**  
Woynarowski, Jan  
PhD/Technical U of Gdanisk, Poland  

Radiology  

**Professor and Chair/Stewart R Reuter Distinguished Professorship**  
*Dodd, Gerald D, III  
MD/UT Houston  

**Professor/Malcolm Jones Professorship**  
*Fullerton, Gary D  
PhD/Wisconsin  

**Professor/Julio Palmaz Professorship**  
*Sprague, Eugene A  
PhD/UTHSCSA  

**Professor Emeritus**  
Reuter, Stewart R  
MD/San Francisco  

**Professor & Vice Chair**  
Blumhardt, Ralph  
MD/Hanemann Med College  

**Professor**  
*Bower, James  
PhD/Wisconsin  

Chaudhuri, Tuhin K  
MBBS/Calcutta Med College, India
Chintapalli, Kedar N  
MD/Guntur Med College, India
*Fox, Peter T  
MD/Georgetown
*Lancaster, Jack L  
PhD/UT Southwestern Med Ctr
McCarthy, Michael J  
MD/Georgetown
Palmaz, Julio C  
MD/La Plata Med School, Argentina
*Phillips, William T  
MD/UTMB Galveston
*Woolley, Fredrick  
PhD/Brigham Young
Clinical Professor  
Bazan, Carlos, III  
MD/Johns Hopkins
Associate Professor  
*Gao, Jia-Hong  
PhD/Yale
Loredo, Rebecca A  
MD/UTHSCSA
Otto, Pamela M  
MD/Missouri-Columbia
Associate Professor/Clinical  
*Dalrymple, Neal  
MD/Tufts School of Medicine
Laster, Dan Wayne  
MD/UT Galveston
Metter, Darlene  
MD/John A Burns School of Medicine, Hawaii
Nguyen, Vung D  
MD/Saigon, Vietnam
Prasad, Srinivasa  
MBBS/Bangalore Medical College
*Wiatrowski, Wayne A  
PhD/UTHSCSA
Associate Professor/Research  
*Clarke, Geoffrey  
MD/UT Southwestern Med Center at Dallas
*Goins, Beth A  
PhD/Tennessee
*Jerabek, Paul  
PhD/California-Irvine
Parsons, Lawrence M  
PhD/California-San Diego
Clinical Associate Professor  
Bradley, Yong Chol  
MD/Medical College of Georgia
Clarke, Ewell A  
MD/UTHSCSA
Freckleton, Michael  
MD/Northwestern Medical School
Wholey, Michael  
MD/Vanderbilt
Assistant Professor  
*Wang, Zheng  
PhD/Texas A&M
Assistant Professor/Clinical  
Bowman, Steven  
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Chhaya, Samir  
MD/Kings College
El Merhi, Fadi  
MD/American U of Beruit
Garcia, Glenn  
MD/UTHSCSA
Icenogle, Diane  
MD/UTHSCSA
Leuschen, Calvin  
MD/Nebraska College of Medicine
McKay, Claire  
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Postoak, Darren  
MD/Michigan
Scott, Riley  
MD/Missouri
Suri, Rajeev  
MD/Christian Medical College, India
Assistant Professor/Research  
*Awasthi, Vibhudutta  
PhD/SGPIMS, India
*Gao, Jian  
PhD/Tianjin
*Hardies, Lou Jean  
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*Kochunov, Peter  
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*Narayana, Shalini  
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Mumbower, Amy  
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Rehabilitation Medicine

Professor and Chair  
Walsh, Nicolas E  
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Dumitru, Daniel  
MD, PhD/Cincinnati
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King, John C  
MD/Oral Roberts
Smith, R Brian  
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MD/UT Southwestern
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MD/Emory

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MD/LSU
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PhD/Minnesota

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Pestana, Carlos
MD/Mexico City
PhD/Minnesota

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MD/Pittsburgh

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  MS/Arizona
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Shireman, Paula
  MD/Indiana

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Villarreal, Roberto
  MD/Tamaulipas

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Dorman, James P
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Glendening, David L
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Martinez, Daniel
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  MBA/Binghamton
  DO/Philadelphia
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  MS/Baylor
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Vecil, Giacomo
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  Cortes, Carlos L
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Danielson, Daren S
  MD/Minnesota
de la Garza, Jorge L
  MD/UT Houston
Desouza, Gerard J
  FX Science/St Xaviers
  MBBS/Goa Mecial
Ernst, Joseph J
  MD/UTHSCSA
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  MD/UT Southwestern
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  MD/N Carolina
Forman Jr, David M
  MD/Miami
Ghafoori, Giovanna
  MD/UC San Francisco
Goel, Shashi B
  MBBS/Lady Hardinge
Gomez III, Julian
  MD/Baylor
Harrison, Katherine A
  MD/Massachusetts
Hilmy, Ashraf A
  MD/Ain Shams
  MBA/UT Pan American
Keillor, Herman J
  MD/UT Southwestern
Lester II, Louis F
  MD/Texas Tech
Lopez, Ruben M
  MD/Michigan
Martinez, Ricardo D
  MD/UTHSCSA
McCracken, Ann B
  MD/Tulane
Mora, Robert A
  MD/Tulane
Morale, Samuel G
  MD/UTHSCSA
Morgan, James A
  DO/Kansas City

Instructor/Research
Mikhailova, Margarita
  MS/Moscow
  PhD/Moscow
<table>
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<tr>
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<td>Wu, Xiaowu</td>
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<td><strong>Clinical Instructor</strong></td>
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<td>Bowers, Steven P</td>
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<td>Wooldridge, Larry J</td>
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**Urology**

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<tr>
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<tr>
<td><strong>Professor &amp; Chair/ HB &amp; ES</strong></td>
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<tr>
<td>Dielmann Memorial Chair</td>
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<td>Thompson, Ian M, Jr</td>
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<td><strong>Professor/Clinical</strong></td>
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<td><strong>Associate Professor</strong></td>
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<td>Swanson, Gregory P</td>
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<td>Jones Jr, LeRoy A</td>
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<tr>
<td><strong>Clinical Assistant Professor</strong></td>
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<td><strong>Instructor</strong></td>
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<td>Hernandez, Javier</td>
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<td><strong>Clinical Instructor</strong></td>
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<td>Canby-Hagino, Edith</td>
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<td>MD/S California</td>
</tr>
</tbody>
</table>
School of Allied Health Sciences

Clinical Laboratory Sciences

**Professor and Chair**  
*McKenzie, Shirlyn B*  
PhD/Texas A&M  

**Professor**  
*Smith, Linda A*  
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Jorgenson, James H  
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Moore, Charleen M  
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Mott, Glen E  
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Rinaldi, Michael G  
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Fernandez, Miguel C  
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**Instructor**  
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Hackett, Cindy  
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Kowalik, Laura  
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McLinden, Sarah  
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Patton, Jacque  
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Tupa, Cathie  
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MSD/Alabama  

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de la Torre, Magda  
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Manwell-Jackson, Mary Agnes  
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Hicks, Beatriz M  
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Stein, Joan  
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**Clinical Instructor**  
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Nguyen, Carol  
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Smiley, Lynn  
BA/Blackburn College  
Valdez, Judy  
BS/UTHSCSA  

*Graduate Faculty
Dental Laboratory Technology

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MSHP/Southwest Texas State

Assistant Professor
Evans, James G
PhD/Texas A&M

Clinical Assistant Professor
Graham, James C
MS/Southwest Texas State

Associate Professor
Anthony, Thomas H
MSHP/Southwest Texas State

Assistant Professor
Dirks, Sarah J
DDS/UTHSCSA

Assistant Instructor
Swain, Michael A
MS/Troy State

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Professor and Chair
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Professor
Gordon, Donald J
MD/Maryland
PhD/Oregon State

Assistant Professor
Burgardt, Ann J
MD/New Mexico

Assistant Professor
Eaton, Terry S
BA/Cal State-Fullerton

James, Billy
MA/Houston-Clear Lake

Komorn, Shawn
BS/Wayland Baptist

Occupational Therapy

Associate Professor and Chair
Haradon, Gale S
PhD/Denver

Adjunct Assistant Professor
Cate, Yolanda
MS/Kansas

Adjunct Campus Extension
Appling, Deanna
BS/Texas Tech

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Barnes, Karin J
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Adjunct Assistant Professor
Daby, Constance Vilt
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Assistant Professor
Vogel, Kimberly A
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Adjunct Assistant Professor
Harness, Evelyn
BS/Texas Woman's U

Assistant Professor
Beck, Alison J
MA/Incarnate Word

Adjunct Assistant Professor
Piernik-Yoder, Bridgett
MA/UT San Antonio

Robles-Meadows, Corinne
MBA/Our Lady of the Lake

Oxford, Kimatha L
MOT/Texas Woman's U

Laredo Campus Extension
Charro, Pat
BS/UTHSCSA

Gonzalez, Terri
MA/Texas A&M International
Physical Therapy

**Associate Professor and Chair**
De Domenico, Giovanni  
PhD/South Wales, Sydney

**Associate Professor**
Blessing, J Dennis  
PhD/Kansas State  
PA/Duke

**Assistant Professor**
Gardner, Donna D  
MSHP/Southwest Texas State  
Sorenson, Helen M  
MA/Nebraska-Omaha

Newstead, Ann Hamilton  
MS/Alabama-Birmingham  
Ortega, Catherine  
MS, PT/Texas Woman’s U  
Turturro, Thomas C  
MS, PT/Texas Woman’s U

**Clinical Assistant Professor**
Thomas, Erin  
MPT/U of Evansville

**Adjunct Instructor**
Reyna, Lisa N  
MPAS/Nebraska  
PA/Interservice Physician  
Assistant Program

**Assistant Professor**
Brewer, Patricia A  
PhD/Uniformed Services U of Health Sciences, Bethesda

**Clinical Assistant Professor**
Colver, Judith E  
MMS/St Francis College  
PA/US Army Academy of Health Sciences  
Forister, J Glenn  
MPAS/Nebraska  
PA/UT Medical Branch

**Medical Directors**
Garcia, Juan  
MD/U Francisciso Marroquin, Guatemala City  
Peters, Jay I  
MD/Baylor

Physician Assistant Studies

**Associate Professor and Chair**
Blessing, J Dennis  
PhD/Kansas State  
PA/Duke

**Clinical Assistant Professor**
Colver, Judith E  
MMS/St Francis College  
PA/US Army Academy of Health Sciences  
Forister, J Glenn  
MPAS/Nebraska  
PA/UT Medical Branch

**Adjunct Instructor**
Kane, Pamela K  
MA/Webster  
Keeton, Thomas K  
PhD/UT Southwestern  
McKinley, Margaret Elizabeth  
BS/UTHSCSA  
Norton, Margaret  
BS/Southwest Texas State  
Vaughn, Misty  
BS/Southwest Texas State

**Assistant Professor**
Reese, Valerie F  
MD/Arkansas

Respiratory Care

**Associate Professor and Chair**
LeGrand, Terry S  
PhD/LSUHSC

**Instructor**
Garza, Carlos A  
MA/Incarnate Word  
McCrea, Kimberly C  
BS/Kansas

**Medical Directors**
Garcia, Juan  
MD/U Francisciso Marroquin, Guatemala City  
Peters, Jay I  
MD/Baylor
## School of Nursing

### Acute Nursing Care

**Associate Professor and Chair**

*Girard, Nancy J*
- PhD/UT Austin
- MSN/UTHSCSA

**Professor**

*Lewis, Sharon L*
- PhD/New Mexico
- MS/Colorado

**Associate Professor**

*Heye, Mary L*
- PhD/UT Austin
- MSN/UTHSCSA

*Jackson, Brenda G*
- PhD/UT Austin
- MSN/UTHSCSA

*Parsons, Mickey*
- PhD/The Fielding Institute
- MS/Colorado

**Associate Professor/Clinical**

Byers, Vicki
- PhD/UT Austin
- MSN/UTHSCSA

Staats, Cheryl R
- MSN/College Misericordia

**Assistant Professor**

*Bell, Margaret L*
- PhD/UT Austin
- MPH/N Carolina-Chapel Hill

*Lucke, Kathy E*
- PhD/Maryland-Baltimore
- MSN/Med College of Georgia

*Reineck, Carol A*
- PhD/Maryland-Baltimore
- MSN/UTHSCSA

**Assistant Professor/Clinical**

Denyer, Michelle M
- MSN/UTHSCSA

Laureano-Julia, Wilfredo
- MSN/Colorado

Malta, Judy L
- MSN/UTHSCSA

Reeves, Kathleen
- MSN/UTHSCSA

Rice, Janis N
- MSN/UTHSCSA

Shaw, Virginia S
- MSN/UTHSCSA

**Clinical Assistant Professor**

Clutter, Paula C
- MS/Florida

Hodges, Pamela J
- MSN/UTHSCSA

Owens, Barbara L
- PhD/UTHSCSA

Robichaux, Catherine E
- PhD/UT Austin
- MSN/Incarnate Word

**Instructor/Clinical**

Dittmar, Vicky D
- MSN/UTHSCSA

Rupert, Stacy A
- MSN/Incarnate Word

Swartz, Carol
- MSN/UTHSCSA

**Clinical Instructor**

Arevalo, Lyda C
- MSN/UTHSCSA

Hayes, Cheryl L
- MSN/UTHSCSA

Trott, Judith C
- MSN/Catholic Univ of America

Tuller, Martha L
- MSN/Cincinnati

---

### Chronic Nursing Care

**Associate Professor and Interim Chair**

Linton, Adrienne
- PhD/UT Austin
- MN/Mississippi

**Lillie Cranz Cullen Professor in Nursing**

*Robinson, Beverly*
- PhD/UT Austin
- MSN/Texas Woman's U

**Professor**

Braden, Carrie
- PhD/Arizona
- MS, MS/Arizona, Winona State

**Professor Emeritus**

Holtzclaw, Barbara
- PhD/Oklahoma
- MS/California-San Francisco

**Assistant Professor**

Connelly, Lynne
- PhD/Kansas
- MS/Maryland

David, Yolanda
- PhD, MSN/UTHSCSA

McGowan, Nancy
- PhD/UTHSCSA
- MS/George Mason

**Assistant Professor/Clinical**

Gilcrest, Darlene
- PhD/California-San Francisco
- MSN/San Francisco

Grinslade, Margaret Susan
- PhD/California-Illinois-Chicago
- MS, MSEd/S Illinois-Edwardsville

Porter, Linda
- PhD/St Mary's-San Antonio
- MSN/Indiana
- MA/St Mary's-San Antonio

Singel, Laurie
- MSN/The Catholic U of America

Ruzicka, Susan
- PhD/UTHSCSA
- MSN/St Louis U

**Clinical Instructor**

Burlazzi, Helen
- MSN/Texas Women's U

---

*Graduate Faculty*
Carvalho, Clarissa  
  MSN/SNDT Women’s U, Bombay, India

Dunn, Vincy  
  MSN/UTHSCSA

Flagg, Amanda  
  MSN/UTHSCSA

Gallagher, Martina  
  PhD(c)/UTHSCSA  
  MSN/UTHSCSA

Guerrero, Lorena  
  MSN/UTHSCSA

Kaufman, Linda  
  MSN/College Misericordia, Dallas, PA

Murray, Anthia  
  MSN/MPH/UTHSCSA  
  MS/Tulane SPH&TM

Perry, Lee  
  MSN/UT-Arlington  
  JD/St Mary’s School of Law, San Antonio

Reiff, Susan  
  MSN/UTHSCSA  
  Smith, Carmillia  
  MSN/Texas Tech HSC  
  Walker, Mary  
  MSN/UTHSCSA  
  Zimmerle, JoAnne  
  MSN/UTHSCSA

*Graduate Faculty

**Family Nursing Care**

**Assistant Professor and Interim Chair**

*Reineck, Carol  
  PhD/Maryland-Baltimore  
  MSN/UTHSCSA

**Professor**

*Brackley, Margaret  
  PhD, MSN/Texas Woman’s U

*Keller, Colleen S  
  PhD/New Mexico  
  MSN/Ohio State

Stevens, Kathleen R  
  EdD/Houston  
  MS/Texas Woman’s U

**Associate Professor**

Champion, Jane D  
  PhD/UTHSCSA  
  MSN/UTMB Galveston

*Dunn, Kelly  
  PhD/UT Austin  
  MSN/Boston

Williams, Gail  
  PhD/NYU  
  MSN/Adelphi

**Associate Professor/Clinical**

Gill, Sara L  
  PhD/Miami  
  MSN/UTHSCSA

Marshall, Margaret  
  MS/Webster-St Louis

**Clinical Associate Professor**

Rogers, Norma Martinez  
  PhD/UT Austin  
  MSN/UTHSCSA

**Assistant Professor**

Lesser, Janna  
  PhD

**Assistant Professor/Statistical Scientist**

Lucke, Joseph  
  PhD, MA/Kansas

**Assistant Professor/Clinical**

Bonugli, Rebecca  
  MSN/UTHSCSA

**Clinical Assistant Professor**

Soucy, Mark  
  PhD/UTHSCSA  
  MS/Northeastern

**Clinical Instructor**

Cleveland, Lisa  
  MN/Medical College-Georgia  
  Nabarrete, Synthia  
  MS/UT Austin

**Instructor/Clinical**

Cantu, Adelita Gonzales  
  MSN/Texas Woman’s U  
  Carreon, Rebecca  
  MSN/UTHSCSA

**Instructor/Clinical**

Elms, Stephanie  
  MSN/UTHSCSA  
  Keys, Pamela L  
  MSN/U of the Incarnate Word

Meyer, Mark  
  MSN/U of the Incarnate Word

Purcell, Cynthia  
  MSN/UTHSC-Houston

Ward, Linda  
  MSN/New Mexico

Wagner, Della  
  MSN/UTHSCSA  
  Thille-Vega, Michael  
  MSN/San Jose State

Carrol, David  
  MS/UTHSCSA  
  Deresz, Carol  
  MSN/UTHSCSA

Dodge, Laurie  
  MSN/Inst of Health Professions-Boston

Flores, Bertha “Penny”  
  MSN/UT-Houston

Garcia-Michels, Rebecca  
  MSN/UTHSCSA

Hicks, Cherri  
  MSN/UTHSCSA

James, Teresa  
  PhD/UTHSCSA  
  MSN/Utah

Johnson, Sandra  
  MSN/Alabama

Lavender, Julie  
  MS/Oklahoma

Mayle, Tina  
  MSN/Georgia State

Tierney-Gumaer, Rosalie  
  MSN, MPH/UTHSCSA

**Specialist/Clinical**

Conrad, Deneise H  
  MSN/Texas Woman’s U  
  Davidson, Patricia  
  MSN/Alabama-Birmingham
A

Aaron and Bobbie Krus Chair  
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Adhetoma, Omolola 16

Adhvaryu, Siddharth G 33

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Aguilar, Leticia T 20

Agyin, Joseph 8

Ahmad, Mohammad M 24

Ahuja, Seema S 21

Ahuja, Sunil 9

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Abrahamian, Gregory A 31

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Ahmad, Mohammad M 24

Ahuja, Seema S 21

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<td>Cullen, Lillie Craniz Professor in Nursing</td>
<td>Robinson, BeverlyPhD 36</td>
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Mary Weir Professorship
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McGovern, Darlene 34
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Miller, Frank R 25
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Morale, Samuel G 31
Morgan, James A 31
Morgan, Mark W 25
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Mission, Role, and Scope

The primary role of The University of Texas Health Science Center at San Antonio is to:

- educate health care providers and scientists
- engage in biomedical and clinical research to improve the health of mankind
- provide state-of-the-art clinical care
- enhance community health awareness
- address health disparities

Mission Statement

The mission of The University of Texas Health Science Center at San Antonio is to serve the needs of the citizens of Texas, the nation, and the world through programs committed to excellence and designed to:

- educate health professionals for San Antonio and the entire South Texas Community and for the State of Texas to provide the best possible health care, to apply state-of-the-art treatment modalities, and to continue to seek information fundamental to the prevention, diagnosis, and treatment of disease.
- play a major regional, national and international role as a leading biomedical education and research institution in the discovery of new knowledge and the search for answers to society’s health care needs.
- be an integral part of the health care delivery system of San Antonio and the entire South Texas community, as well as an important component of the health care delivery system of The State of Texas and the nation.
- serve as a catalyst for stimulating the life science industry in South Texas, culminating in services and technology transfer that benefit local and state economies.
- offer continuing education programs and expertise for professional and lay communities.

The University of Texas Health Science Center at San Antonio (UTHSCSA) is a health component institution of The University of Texas System and, as such, is committed to pursue the highest standards of achievement in instruction, student performance, research and scholarly accomplishment, patient care, and service. The Health Science Center has established itself as a major research institution, and its faculty play a major role nationally in the discovery of new knowledge and the search for answers to society’s health care needs. Faculty members engage in teaching, research, and patient care in an interdisciplinary environment—one that encompasses a breadth of expertise that would be impossible to achieve in a single department or school. The Health Science Center will nurture this environment and will continue to support this integration. An important element of the educational effort is educating primary care health professionals of the highest quality.

Faculty members engage in research and patient care while serving the people of Texas. As members of the only comprehensive academic health science university located in South Texas, the faculty have the unique advantage of focusing research questions on diseases that are prevalent among the citizens of South Texas, the border region, and Mexico. As a leader in health care, the Health Science Center has the responsibility for providing programs and expertise for the ongoing education of the professional and lay communities. The Health Science Center, through its educational and research roles, provides the human and physical resources that facilitate the continuing development of the biosciences in the community and the region. Since the legislative chartering of the Medical School in 1959, The University of Texas Health Science Center, with its five health professional schools, has developed into a major health university in the state, nation, and world.

Through the undergraduate, graduate, and post-graduate programs, the faculty is committed to the education of health professionals whose lifelong career objectives will be to provide the best possible health care in the most cost-effective way, to apply contemporary treatment modalities, and to seek information that is fundamental to the treatment and prevention of disease.

The Health Science Center offers more than 50 health-related degree specialties and several pre- and post-baccalaureate certificate programs.

The institution consists of the Dental School, the Graduate School of Biomedical Sciences, the School of Dentistry, the Medical School, the School of Allied Health Sciences, and the School of Nursing, and offers degrees and programs in health-related fields. A Doctor of Pharmacy program is offered jointly with The University of Texas at Austin. In addition, a component of the School of Public Health at The University of Texas at Houston Health Science Center offers the Master of Public Health on this campus.

The Dental School develops and conducts high-quality educational programs offering the opportunity for qualified students to participate in a program leading to the Doctor of Dental Surgery degree, advanced educational programs in a variety of specialty areas, and advanced General Dentistry. Dental clinical faculty provide these programs in the Departments of Community Dentistry, Dental Diagnostic Science, Endodontics, General Dentistry, Orthodontics, Pediatric Dentistry, Periodontics, Prosthodontics, Restorative Dentistry, and Oral and Maxillofacial Surgery. The Dental School contributes significantly to the body of basic and applied knowledge related to oral health.
The **Graduate School of Biomedical Sciences** develops and offers high-quality educational programs providing the opportunity for students to pursue Master of Science and Doctor of Philosophy degrees. The Master of Science and Doctor of Philosophy are currently offered in biochemistry, cellular and structural biology, microbiology and immunology, molecular medicine, nursing, pharmacology, physiology, and radiological sciences. Doctoral training in biomedical engineering is offered through a joint program with the Graduate School at The University of Texas at San Antonio (UTSA). Four Master of Science degree programs are offered by faculty in the Dental School in dental diagnostic science, endodontics, periodontics, and prosthodontics. Master’s degree programs are offered by faculty in the School of Allied Health Sciences and the Medical School in clinical laboratory sciences, clinical investigation, and dental hygiene. The Graduate School jointly administers, with The University of Texas at Austin, a program leading to the Doctor of Pharmacy degree (Pharm.D.). The Departments of Biochemistry, Cellular and Structural Biology, Microbiology and Immunology, Pathology, Pharmacology, and Physiology provide education in the basic sciences to students in allied health sciences, dentistry, and medicine. The focus of the Graduate School is the discovery, creative application, and transfer of knowledge to the solution of major research problems in the biomedical sciences.

The **Medical School** develops and conducts high-quality educational programs offering the opportunity for students to pursue the Doctor of Medicine degree and for residents and fellows to pursue a full range of residency and fellowship training. Medical clinical faculty provide these programs in the Departments of Anesthesiology, Family and Community Medicine, Medicine, Obstetrics and Gynecology, Ophthalmology, Orthopaedics, Otolaryngology—Head and Neck Surgery, Pathology, Pediatrics, Psychiatry, Radiation Oncology, Radiology, Rehabilitation Medicine, Surgery, and Urology. Conducting biomedical and other health-related research is an integral role of the Medical School.

The **School of Allied Health Sciences** develops and conducts high-quality educational programs that offer students the opportunity to become competent health care providers in allied health sciences. Included in the school’s programs are certificate, baccalaureate, post-baccalaureate certificate, and master’s degree programs. Certificate programs are offered in dental hygiene, dental laboratory technology, and emergency health sciences. Bachelor’s degrees are offered in clinical laboratory sciences, dental hygiene, dental laboratory sciences, emergency health sciences, and respiratory care. Post-baccalaureate certificates are offered in clinical laboratory sciences, molecular diagnostics, and cytogenetics. Master’s programs include a Master of Science in Clinical Laboratory Sciences with tracks in immunohematology and forensic/analytical toxicology, Master of Science in Dental Hygiene, Master of Deaf Education and Hearing Science, Master of Occupational Therapy, Master of Physical Therapy, and Master of Physician Assistant Studies. The Emergency Health Sciences Department provides paramedical training for San Antonio, Bexar County, and surrounding areas.

The **School of Nursing** develops and conducts high-quality educational programs offering the opportunity for students to participate in programs leading to the Bachelor of Science in Nursing, Master of Science in Nursing, and Doctor of Philosophy degrees. These educational programs benefit from a faculty that supports competent clinical practice, conducts research focused on patient care, and engages in community service.

**Research and Teaching**

Faculty excellence at The University of Texas Health Science Center at San Antonio is demonstrated by 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—composed of The University of Texas Health Science Center, The University of Texas at San Antonio, the Audie L. Murphy Division of the South Texas Veterans Health Care System ("V. A."), Trinity University, Wilford Hall Medical Center, Brooke Army Medical Center, St. Mary’s University, the Southwest Foundation for Biomedical Research, Southwest Research Institute, and the 311th Human Systems Wing at Brooks City-Base—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 San Antonio Cancer Institute partners with the Health Science Center and the Cancer Therapy and Research Center.

The **University of Texas Institute of Biotechnology (IBT)** is located on a 160-acre site in the Texas Research Park, 20 miles west of the UTHSCSA campus. The IBT is joined by the adjacent **South Texas Centers for Biology in Medicine** and **Sam and Ann Barshop Institute for Longevity and Aging Studies**.

The **Robert F. McDermott Clinical Science Building**, on our North Campus, houses the Research Imaging Center as well as research labs and teaching facilities for the Clinical Pharmacology and Clinical Pharmacy Programs and the Ophthalmology Department.
The Allied Health/Research (AHR) Building is adjacent to the McDermott Building and the new Children’s Cancer Research Institute (CCRI). The AHR Building houses seven School of Allied Health Sciences departments and a Graduate School of Biomedical Sciences research center. The departments residing in the AHR Building are: Clinical Laboratory Sciences, Dental Hygiene, Emergency Health Sciences, Occupational Therapy, Physical Therapy, Physician Assistant Studies, and Respiratory Care. The Graduate School’s Center for Biomolecular Structure Analysis has a suite of laboratories in the AHR Building for use by scientists throughout South Texas.

The Children’s Cancer Research Institute (CCRI) is housed in a new state-of-the-art research building on UTHSCSA’s North Campus. The CCRI 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.

**Enrollment**

The University of Texas Health Science Center at San Antonio is educating and training nearly 3,000* students annually. More than 800 students participate in the Medical School’s four-year program that leads to the M.D. degree. Approximately 350 students attempt to master the rigorous curriculum of the Dental School’s D.D.S. program. Dual-degree options provide students an opportunity to obtain Ph.D. degrees in addition to the M.D. or D.D.S. in programs with curricula that incorporate the degree requirements of both programs.

More than 300 students are enrolled in the programs of the Graduate School of Biomedical Sciences that lead to M.S. and Ph.D. degrees in biochemistry, biomedical engineering, cellular and structural biology, microbiology and immunology, molecular medicine, nursing, pharmacology, physiology, and radiological sciences; and an M.S. in dental hygiene, clinical investigation, and clinical laboratory sciences. A Pharm.D. program in Pharmacy is offered jointly with The University of Texas at Austin. Advanced education dental programs leading to M.S. degrees are administered by the Graduate School.

The School of Nursing provides the final two years of a professional nursing program leading to a B.S. in Nursing and faculty instruction for M.S.N. and Ph.D. degree programs to more than 800 students.

Almost 600 students are enrolled in various School of Allied Health Sciences programs—Clinical Laboratory Sciences, Deaf Education and Hearing Science, Dental Hygiene, Dental Laboratory Technology, Emergency Health Sciences, Occupational Therapy, Physical Therapy, Physician Assistant Studies, and Respiratory Care.

* Fall 2004

**Size and Location**

The University of Texas Health Science Center at San Antonio is one of 15 components of The University of Texas System. UTHSCSA is composed of six campuses in San Antonio and South Texas.

The Central Campus is located on more than 100 acres in the heart of San Antonio’s South Texas Medical Center. A few blocks away is the 30-acre North Campus. The 103-acre Texas Research Park Campus is in west Bexar County. UTHSCSA’s South Texas campuses are located in Harlingen, Laredo, and Edinburg.

Students are enrolled in the Health Science Center’s five schools—the School of Allied Health Sciences, the Dental School, the Graduate School of Biomedical Sciences, the Medical School, and the School of Nursing. Also, programs leading to a Doctor of Pharmacy and a Masters in Public Health are jointly conducted with other components of The University of Texas System.

In addition, more than 200 individuals are pursuing postdoctoral education and several hundred medical interns are training at the institution. Approximately $165 million is sponsored annually in research and contract programs. The interdisciplinary aspect of research and patient care is regarded as one of the University’s great 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 as well as to patients. Interstate 10 and the city’s major thoroughfare, Loop 410, converge about one mile from the Central and North campuses. The Health Science Center 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.

The Health Science Center has more than 2 million square feet of education, research, treatment, and administrative facilities. The University employs approximately 5,000 faculty and staff, with a budget of approximately $470 million.

Many institutions in San Antonio serve as excellent resources for programs of the Health Science Center. These include facilities of the Bexar County Hospital District, Audie Murphy Division/South Texas Veterans Health Care System, CHRISTUS Santa Rosa Hospital, Wilford Hall Medical Center, Brooke Army Medical Center, School of Aerospace Medicine, San Antonio Metropolitan Health District, Southwest Research Institute, and Southwest Foundation for Biomedical Research.

The Regional Academic Health Center (RAHC) of UTHSCSA is located in the Lower Rio Grande Valley. Clinical training for third- and fourth-year medical students at the Regional Academic Health Center began in July 2002. Twenty-four third-year medical students and twenty-four fourth-year medical students are assigned to receive their clinical training at the Regional Academic Health Center and its affiliated clinical sites. These clinical
sites include Valley Baptist Medical Center and Su Clinica Familiar, both located in Harlingen. Other clinical sites to be included or under development are community clinics and the offices of private-practice physicians from throughout the Lower Rio Grande Valley. Assignments to the Regional Academic Health Center will, to the extent possible, be based on student preference. Final decisions, however, about such placements will be made by the Dean of the Medical School.

The School of Allied Health Sciences offers two of its degree programs in Laredo as part of the Laredo Campus Extension: Bachelor of Science in Respiratory Care and Master of Occupational Therapy. Most of the coursework is provided through distance learning and Web-based courses. Educational partnerships with Laredo Community College and Texas A&M International University allow students to complete general education and prerequisite courses in preparation for admission to the professional curriculum. Laredo-area hospitals and health agencies provide excellent sites for clinical education.

The Dental School offers Postgraduate Prosthodontic Residency rotations to the Gateway Community Health Center in Laredo.

Teaching Affiliates - San Antonio
Some members of the staffs of our teaching affiliates hold joint appointments in the Dental, Graduate, Medical, or Nursing Schools and participate in educational research programs. These institutions constitute an important resource for training students as well as providing needed laboratory space for conducting research.

University Hospital, operated by Bexar County’s University Health System, adjoins the Health Science Center and is connected to the UTHSCSA Medical School building at several levels. Planned to integrate with the Medical School, it is a 12-story facility providing all general hospital and most tertiary care services. The hospital has approved post-graduate training programs in anesthesiology, surgery, internal medicine, obstetrics/gynecology, ophthalmology, orthopaedic 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.

The University Health Center Downtown is an outpatient health center featuring more than 103 specialty clinics as well as adult and pediatric walk-in clinics. Thousands of outpatient visits are conducted there each year. The University Family Health Center-Southwest and the University Family Health Center-Southeast are community-based outpatient health care centers offering preventive screenings and family health care.

The South Texas Veterans Health Care System, Audie Murphy Division, with a bed capacity of 462 for medical, surgical, and psychiatric patients, serves 59 counties of Southwest Texas. The facility provides 40,000 square feet of space for research. It is linked by a crosswalk to University Hospital.

The CHRISTUS Santa Rosa Health Care (CSRHC) System includes the general hospital, Children's Hospital, Otto Koehler Radiation Therapy and Research Unit and the Outpatient Clinic in downtown San Antonio, and the CHRISTUS Santa Rosa Rehabilitation Hospital and CHRISTUS Santa Rosa Medical Center Hospital, located in the South Texas Medical Center. CSRHC has an extensive medical staff, several primary care and specialty health clinics, and an array of community outreach services.

The hospitals offer diagnostic and treatment facilities that support good health for the mind, body, and spirit. They offer patients a range of services, including comprehensive pediatric care, cardiac care, a transplant institute, rehabilitation services, a comprehensive cancer program, complete obstetrical and newborn services, a surgical unit, diabetes care program, wound care management, and some of the latest diagnostic services.

Brooke Army Medical Center, a major military treatment facility, has a bed capacity of 450 and offers definitive medical and surgical care for Army and other authorized personnel. It also provides outpatient care. Internships and residency training programs also are available. The United States Army Institute of Surgical Research at Brooke has gained international renown for its outstanding research and excellence in the treatment of serious burn cases.

Wilford Hall USAF Medical Center is a component of the Aerospace Medical Division of the Air Force Systems Command. It operates a 288-bed general hospital that admits more than 15,000 patients annually, and its clinics register nearly a million visits from outpatients each year.

The Baptist Health System, comprising five hospitals totalling more than 1,500 licensed beds, provides a wide range of hospital services, emergency care, and a variety of educational programs throughout San Antonio. The University Health System collaborates with the Baptist Health System in providing aeromedical helicopter services for San Antonio and the surrounding region.

The San Antonio Metropolitan Health District/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 University Center for Community Health, another component of the University Health System, is located in west San Antonio. Components include the Village of Hope, an ambulatory care center for children with developmental disabilities, and an outpatient hemodialysis unit. The Texas Diabetes Institute provides a state-of-the-art patient care and education unit, and a clinical research center.
The Cancer Therapy and Research Center (CTRC) is a freestanding, multidisciplinary, nonprofit outpatient cancer treatment and research facility located in the South Texas Medical Center. Its clinical programs involve outpatient radiotherapy and chemotherapy and provide care for more than 250 patients daily. The research program involves three major activities: the Southwest Oncology Group is the largest clinical trials organization in the world, coordinating the activities of several thousand investigators in hundreds of institutions throughout the country; the San Antonio Cancer Institute is a joint venture between the Health Science Center and CTRC and is one of a small network of National Cancer Institute (NCI)-Designated Cancer Centers in the United States selected by the NCI to receive funding to conduct Phase I clinical trials of anticancer drugs.

The Children's Cancer Research Institute (CCRI) 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 CCRI is located on our North Campus (8403 Floyd Curl Drive), between the CTRC Grossman Campus and Allied Health/Research Building.

The University of Texas at San Antonio, a major general academic university offering both undergraduate and graduate programs, is located on a 600-acre campus five miles north of the Health Science Center and an urban campus in downtown San Antonio. Cooperative teaching and research between the two institutions is in progress. The San Antonio Life Sciences Institute (SALSI), a collaboration between UTSA and UTHSCSA, promotes education, research, and economic development in biomedicine and biotechnology.

The U. S. Air Force School of Aerospace Medicine, located at Brooks City-Base, is active in research and development in medical aspects of aerospace flight, in clinical practices of special interest to aerospace, and in post-graduate education in aerospace medicine and allied subjects.

The Child Guidance Center at San Antonio, a nonprofit tax-exempt organization, treats young people through age 17 who are suffering mental and emotional ills. Methods of treatment include individual therapy, family therapy, parent counseling, medication, and group therapy sessions. The Guidance Center treats approximately 1,500 patients a year in addition to those served under consultation contracts. Through an affiliation agreement with UTHSCSA, the Center provides training for students in the mental health field.

An affiliation agreement is maintained between The University of Texas Health Science Center at San Antonio and the Southwest Foundation for Biomedical Research. This agreement allows the two institutions to share facilities and faculties. The Southwest Foundation's staff works primarily in the fields of cancer and heart, endocrine, and infectious disease with emphasis upon virology and parasitology. The Foundation has 155,000 square feet of offices and laboratories. 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 and the Southwest Research Institute 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. Business development offices are located in Houston and Washington, D.C.

The Southwest Mental Health Center is a private nonprofit 60-bed psychiatric hospital offering treatment to severely disturbed children and adolescents. In continuous service to the San Antonio community since 1886, the institute serves adolescent and preadolescent children. Multidisciplinary treatment teams consisting of clinical psychologists, psychiatric social workers, special educators, nursing and child care personnel, and recreational/occupational therapists implement the patients’ treatment plan under the direction of the child psychiatry staff. The hospital contains six inpatient units, each housing eight to 12 patients for stays of approximately 90 days. A major component of the UTHSCSA Child Psychiatry Training Program, the Center 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 institution as well.

The Dental School is affiliated with a number of federally qualified community health centers, local health departments, hospitals, school districts, mental health facilities, military facilities, and nursing homes in San Antonio, Bexar County, and South Texas, as well as Indian Health Service 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 Allied Health Sciences maintains clinical affiliation agreements with more than 250 clinical sites throughout Texas and the nation where students receive substantial portions of their professional education.

The School of Nursing is affiliated with more than 300 community facilities that serve as practice sites for graduate and undergraduate students.
Other Affiliated Institutions and Programs
The South Texas Area Health Education Center (AHEC) is a federally funded program of the UTHSCSA Medical School and targets a 38-county region of South Texas. Its primary mission is to improve the quantity, quality, and maldistribution of health professionals in this geographic region. It operates through five regional administrative centers located in Corpus Christi, Harlingen, Laredo, Del Rio, and San Antonio. These administrative centers determine local community health professional manpower needs, establish priorities by working with community advisory committees, and negotiate with institutions of higher education and health care facilities to acquire educational and clinical training activities addressing identified needs. The network has enhanced the availability of remote clinical experiences for medical, dental, allied health, nursing, public health, and pharmacy students. An extensive community-academic partnership has been established with community-based institutions of higher education, health care facilities, health professional providers, and secondary educational systems throughout the region.

South Texas Environmental Education and Research Center (STEER)
The center offers an elective course in environmental and border health in Laredo, for medical students and residents, and students in other health 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.

South Texas Health Research Center
Begun in 1989 by Texas Senate Bill 222, the South Texas Health Research Center conducts research and education programs to improve the health status of 3.7 million people living in 41 counties in South Texas and has developed over 102 intramural research projects to meet South Texas needs. The center awards small grants to faculty to conduct research and education programs tailored to meet the specific needs of South Texas, a growing population that is predominantly Hispanic and shares a border with Mexico.

Hispanic Center of Excellence
The Hispanic Center of Excellence provides a variety of student programs including summer pre-matriculation, summer research, mentorship, and tutoring program. The center also offers medical Spanish courses for all first- and second-year medical students, as well as a fourth-year Spanish-speaking-only patient rotation. The center works closely with the STEER and AHEC programs to place students in clinical rotations in South Texas.

Hispanic Center of Excellence—Dentistry
The Hispanic Center of Excellence—Dentistry offers a variety of student and faculty programs. These include summer pre-entry, research, sophomore enrichment, DAT preparation, NBDE review, training of dental students in providing health services in extramural settings, and opportunities for faculty development. The center also offers Spanish dental courses for dental students, as well as faculty and staff. Recently, the center extended the DAT preparation course to the Rio Grande Valley, in conjunction with four universities in that area.

Health Education and Training Center (South Central HETCAT)
The purpose of the program is to improve the supply, distribution, quality, and efficiency of personnel providing health services to Hispanic and other populations with serious unmet health needs, particularly along the U.S.-Mexico border. This program may include both urban and rural populations, and encourages health promotion and disease prevention activities in the target areas.

UTHSCSA Support Services
Office of Student Services
The Office of Student Services represents students’ needs and provides support for student development. The chief student affairs officer oversees the areas of admissions and registration, academic and facilities scheduling, counseling, health care, recreation, student life, and financial aid.

Scheduling of student activities is coordinated with the Office of Student Life (see “Student Life” in this section).

More detailed information about services offered by this office is contained in the UTHSCSA Student Guide.

Academic Space Allocation, Planning, and Scheduling (ASAPS)
The Office of Academic Space Allocation, Planning, and Scheduling is responsible for the assignment and scheduling of all spaces in the UTHSCSA space inventory. Included in this responsibility is the assignment of rooms for classes; publishing of academic class schedules; reservation of space for student, faculty, staff and university events; and the reporting of room requirements to the Texas Higher Education Coordinating Board.

Registered student, faculty, and staff organizations may reserve facilities for authorized meetings, study-group sessions, and other events through this office. Available facilities include a wide range of large and small classrooms, lecture halls, the auditorium, and several breezeways and courtyards in outdoor areas.

To reserve a room for your next event, please call extension 7-2657 from an on-campus phone to check availability of space and fees, if applicable. Additional information may be found in Section 9.1.3 of the UTHSCSA Handbook of Operating Procedures.
Counseling Service
The following services for academic, personal adjustment, and career problems are provided:

- Individual counseling which includes brief consultation or therapy for issues such as personal or family crisis, adjustment to school, relationship problems, depression, anxiety, interpersonal conflicts, or any aspect of behavior which interferes with effective performance
- Couples counseling for students and their partners who are experiencing relationship problems
- Psychological assessment and career consultation, test-based consultation on career or specialty choice, as well as evaluation of learning abilities and style. The Counseling Service does not provide evaluations for educational or testing accommodations.
- Off-campus referral sources are provided to students requesting accommodation in an educational program.
- Psychiatric consultation, which includes diagnostic and medication evaluations
- Workshops for test taking, study skills, stress management, and other topics
- Consultation for alcohol or other drug misuse
- Consultation for issues related to sexual harassment

All services are confidential. There are no fees. Appointments can be made by phone (567-2648) or in person. Crisis appointments are provided on request. Counseling Service is located in Room 101F, Medical School building. To reach 101F, take the elevator, adjacent to the Medical School Courtyard, to Level 1. Counseling Services is located directly opposite the elevator door.

Registrar
The custodian of student academic records, the Registrar is also responsible for the processes of admissions, enrollment, withdrawals, and graduation. The decisions of various academic committees are implemented by this office. The staff handles students’ questions about their records, provides transcripts, and provides veterans and enrollment certification documents. Official student publications, including this Catalog, the UTHSCSA Student Guide, Applicant Viewbook, Certificate & Degree Programs brochure, Commencement programs, and the Student Services Web site are also published by this office.

Student Financial Aid
Students seeking financial assistance in the form of scholarships, grants, and/or loans may seek the help of the Office of Student Financial Aid. Counselors specializing in our five individual schools are available. The office offers all forms of assistance, including need-based and non-need-based forms of aid. Students must be accepted for admission prior to receiving an offer of assistance.

Student Health Center
ANNOUNCEMENT
(Managed by UT Health Partners)
EFFECTIVE DECEMBER 1, 2006
In accordance with both fair business practice regulations in Texas, and insurance requirements, a co-pay will be required for Student Health Center visits effective December 1, 2006. Payment can be made by credit card, debit card, or cash at the time of visit. The co-pay required will be $15 per visit for those insurance carriers without minimum stated co-pay rates, or the lowest respective co-pay required by the specific insurance plans covering the students.

All other health care costs incurred that are covered by insurance will then be billed directly to students’ insurance carriers. The students will not be charged for any balance of these bills after insurance companies’ remittances.

However, not all health care costs are covered by insurance carriers depending on the individual plan. Under those circumstances, the cost for services rendered will be the students’ responsibilities with the cost payable at the time of the visit by credit or debit card or cash.

Services billable to your insurance policy are:

1) Screening for, and provision of, required annual TB skin testing
2) Primary care visits including physicals, well-woman exams, and family planning
3) Evaluation and treatment of minor illnesses and injury
4) Assessment for referrals to specialty clinics/labs (co-pay may be required by these external services)
5) Travel medications and immunizations for an at-cost charge (available upon request with prior arrangement)

Additional Information:

- Effective as of December 1, 2006, this information supersedes any other information communicated verbally, in printed form, or on the Web.
- Students are required to have continuous health insurance coverage while enrolled at the HSC.
- Prior to enrollment, students must submit to the Student Health Center completed immunization records to show full-compliance.
- For Appointment as of September 1, 2006: 567-WELL (9355)
- Health Center Location: First Floor School of Nursing building, Mail Code 7934
- Health Center Hours: 8 a.m.-5 p.m. Monday through Friday, except holidays
- The Student Health Center is managed by UT Health Partners

Student Life
In support of the mission of the University as a whole, the Office of Student Life serves to ease the transition of students into and from the Health Science Center, and to support their holistic development at all points in between.

In collaboration with other University community members, this office “connects” students to the University through programs and activities such as new student orientation, the peer advisor program, student organizations and activities, recreational sports, and commencement.
For detailed information about the Office of Student Life, consult the UTHSCSA Student Guide.

Educational Media Resources
Educational Media Resources provides support for the educational functions of the Health Science Center. The divisions of Multimedia and Web Services, Printing Services, and Television Production Services aid faculty and administration in Web and print design and production; printing; video, DVD, slides, and photography production and duplication; photocopying; medical illustration; poster sessions; framing and plaques; and other media services.

Computing Resources and Computer Store
The Department of Computing Resources provides support for the computing services on campus. Computing Resources’ Triage help desk (ext. 7-2069) is available workdays, from 8 a.m. to 5 p.m., to answer questions, consult on computer issues, and troubleshoot problems concerning UTHSCSA’s information resources. Students are issued an electronic mailing address when they first enroll for classes.

The HSC Computer Store
The HSC Computer Store is located in Computing Resources, Room 492L, and is open from 9:00 a.m. to 4:00 p.m. during scheduled University hours of operation. It provides informational support for ordering Apple and Dell products from respective Web sites. Peripheral items are in stock for purchase and special items can be ordered. Call 567-2832 for specific information.

Office of International Services (OIS)
New International Visitors must report, within a limited time period, to the Office of International Services to initiate their authorized stay. Continuing International Visitors also have to be registered with SEVIS each semester or session.

It is of dire importance that all International Visitors check in with OIS within five calendar days of arrival on campus and at the beginning of each semester so that OIS can complete the Registration Procedures in the US DHS SEVIS System on time. International faculty/staff must drop by OIS to have immigration documents reviewed and/or signed prior to traveling out of the States and upon returning.

Federal regulations mandate that failure to do so will result in the loss of their lawful status, and they will be obligated to leave the USA immediately or file for reinstatement. The approval rate for reinstatement is extremely low. Also, it is a long and tedious process that requires extensive paperwork on the part of the International Visitors, and success is not guaranteed.

The Office of International Services (OIS) is responsible for providing professional guidance and service to international students and scholars at UTHSCSA. The OIS may provide assistance on immigration matters and visa procedures, but does not engage in legal consultation. If necessary, it is the responsibility of the individual international visitor to obtain competent and qualified legal representation from U.S. license attorneys specializing in immigration matters.

All new international students and scholars will be issued appropriate documents and instructions regarding visa and immigration procedures after their acceptance for admission at UTHSCSA. A student financial verification, however, may be required prior to sending the student this information.

Students should contact the OIS soon after arrival on campus (567-6241). Registered students are required to have health insurance coverage. There are also some limitations on both student and dependent employment.

It is the responsibility of each international student to comply with all applicable federal rules and regulations, and The University of Texas System requirements. International students and scholars are encouraged to contact the OIS if they have any questions, need clarification, or require assistance in this area.

Laboratory Animal Resources
The Department of Laboratory Animal Resources operates a contemporary program of Laboratory Animal Medicine and Care designed to promote the humane care and well-being of all animals used in research, testing, and teaching at the Health Science Center. The Department is responsible for all aspects of research animal management including acquisition, husbandry, health care, and research support. The veterinary staff is available to all animal users for assistance with research technology, animal model development, and diagnostic or clinical support. Facilities are available for aseptic surgery, radiographic diagnostics, necropsy and histopathology support, clinical pathology services, and the conventional and specialized housing for the most common laboratory animals, including immunocompromised rodents. The program is registered with the United States Department of Agriculture, is accredited by the Association for Assessment and Accreditation of Laboratory Animal Care, and has a Letter of Assurance on file with the Office of Protection from Research Risks, National Institutes of Health.

Campus Facilities
The property, buildings, or facilities owned or controlled by The University of Texas Health Science Center at San Antonio are not open for assembly, speech, or other activities. The responsibility of the U. T. System Board of Regents to operate and maintain an effective and efficient system of institutions of higher education requires that the time, place, and manner of assembly, speech, and other activities on the grounds and in the buildings and facilities of the U. T. System or component institutions be regulated.

No person, organization, group, association, or corpora-
tion may use property, buildings, or facilities owned or controlled by UTHSCSA for any purpose other than in the course of the regular programs or activities related to the role and mission of the university, unless authorized by the Regents’ Rules and Regulations. Any authorized use must be conducted in compliance with the provisions of the Regents’ Rules and Regulations, the university’s Handbook of Operating Procedures, and applicable federal, state, and local laws and regulations.

More detailed information on the campus facilities described below, as well as information about student lounges, group study rooms, self-service photocopying areas, etc., is contained in the UTHSCSA Student Guide.

Access to Campus Facilities
(from UTHSCSA Handbook of Operating Procedure 9.1.4)

Events Jointly Sponsored by a Health Science Center Department and an Outside Organization

Policy. Outside organizations may not use Health Science Center facilities except with the joint sponsorship of a Health Science Center department. The Health Science Center may recommend joint sponsorship of a project or program only if (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. An “Outside Agency Facilities Use Request” should be completed and sent to Facilities Scheduling. Regents’ Rules and Regulations apply.

Charges. To the extent that there are charges for Health Science Center services (e.g., printing, housekeeping, parking, security, etc.) for the event, such charges (as noted in the HOPs) shall be paid by the sponsoring department. It is the responsibility of the sponsoring department to determine an appropriate level of reimbursement, if any, from the outside entity cosponsoring the event and obtain such payments and deposit such payments to the accounts from which charges for the event were made. Regents’ Rules and Regulations apply.

Visiting the Campus

The Health Science Center welcomes visitors from the community when arranged with prior notice. To obtain information about ongoing prearranged tours for students, call (210) 567-3941. Others interested in a campus visit to a specific school or area within the Health Science Center should contact the office of the respective dean or vice president. Access to certain areas within the institution may be restricted to ensure public safety and patient privacy. Restricted areas have their own visitation policy or criterion.

Amplified Sound Area

The Health Science Center has designated an “Amplified Sound” area on campus. Peaceful assembly and speech activities conducted in accordance with applicable state law and Regents’ Rules and Regulations and other university policies as contained in the UTHSCSA Handbook of Operating Procedures may be conducted in this area without prior administrative approval. The area designated is on the southeast side of the campus approximately 150 yards northwest of the intersection of Floyd Curl Drive and Louis Pasteur Drive. The location is identified by a 2-foot-square marker.

Library Services

The Libraries of the Health Science Center are the Dolph Briscoe, Jr. Library on the Central Campus, the Brady Green Library at the University Health Center-Downtown, the Regional Academic Health Center (RAHC) Medical Library in Harlingen, and the Circuit Librarian Health Information Network (CLHIN), which provides information services to participating hospitals in South Texas. Two additional Library facilities, at the South Texas Research Park and Laredo Extension Campus, are served remotely by personnel at the Briscoe Library. The Briscoe Library, housed in a 93,000-square-foot multilevel building in the center of the campus, serves as the primary source and repository of information for the educational, research, and health care functions of the Health Science Center. The Library provides access to more than 1700 electronic journals and approximately 210,000 volumes of books and journals. The collection covers the broad range of health-related sciences—medicine, dentistry, nursing, allied health sciences, and basic biomedical sciences. MEDLINE and other computer databases are available in the library and via the Internet, and most contain links to the full text of articles. Services include reference, instruction on research methods and use of databases, electronic document delivery, interlibrary loan, and support for PDAs, knowledge management and other initiatives. The Library Computer Center provides 100 computers with e-mail access and software for student use. The RAHC Library, which has a core print collection of books and journals, provides services to students who are on rotation in South Texas. These students have full Internet access to the UTHSCSA Library’s online databases and electronic journals.

Bookstore

The University’s Bookstore is located on the first floor of Parking Garage B, next to the School of Nursing. The hours of operation are from 8 a.m. to 6 p.m. Mondays through Thursdays, 8 a.m. to 5 p.m. Fridays and summers (M–F), and 10 a.m. to 1 p.m. Saturdays (closed on University holidays). Textbooks, medical equipment and scrubs, multimedia and software, oral hygiene and dental laboratory supplies, University logo gift items, sundries, and greeting cards are for sale. A fax machine for student use is available. Special orders are welcome. Visit the Bookstore Web site at http://uthscsa.blstore.com.
Auditorium
The 634-seat auditorium on the Health Science Center campus is used for examinations, lectures, convocations, continuing education courses, professional meetings, and community functions sponsored by the university. Exhibits and gatherings are held in the glass-enclosed foyer.

Cafeterias
Students, faculty, and staff may purchase meals in the Health Science Center's Cafeteria, connected to the ground floor of the Dental School's south end; the University Subway Shop, located in the Lecture Hall Foyer; Java City coffee and yogurt, also located in the Lecture Hall Foyer; and the cafeteria in University Hospital.

Housing
There are no housing accommodations on the campus of the Health Science Center. Apartments, condos, and rental homes, however, are abundant in the area. Students may contact the Office of Student Life for the housing list (567-2654).

Parking
Students may park in the zone for which they purchase a permit. Vehicles parking or driving on campus must follow all Texas vehicle inspection laws. All Texas laws will be enforced on campus by University police officers. Failure to register the vehicle in this state or to display a current and appropriate inspection certificate issued under Chapter 548, Texas Transportation Code, may violate state law if the owner of the vehicle resides in this state. State of Texas vehicle inspection laws for vehicles parking or driving on the campus of the institution will be enforced (see Texas Education Code, Section 51.207). Also see “University Police” beginning on page 69.

Transportation
Buses operated by the metropolitan transit system service the Medical Center area from all parts of the city and within the Center. Student rates are provided. A scheduled University shuttle runs between the main campus area and the North Campus (Allied Health, McDermott, and CCRI buildings); the route includes University Plaza, Lot 17, and the UPG Diagnostic Pavilion on Medical Drive. Also, there are two daily runs to the Texas Research Park.

Accessibility for the Disabled
Every program is accessible to students who have a disability, and every area has disabled-accessible restrooms. The University Police Department provides a map that indicates parking areas designated for the disabled.

Interior and exterior doors have been adjusted to conform with the American National Standards Institute specifications for physically disabled people. Students who may need special arrangements or auxiliary aids because of physical disability are encouraged to discuss these requirements with their associate/assistant deans.

Request For ADA Accommodations
A qualified individual with a disability requesting accommodation must submit the appropriate request for accommodation under the American Disabilities Act (ADA). Students, fellows and residents must submit a Student/Resident Request for Accommodation Under the Americans with Disabilities Act (ADA), form ADA-100, to the appropriate Associate/Assistant Dean of their school and a copy to the ADA Coordinator.

The ADA Coordinator will determine if additional medical information is needed and will furnish the individual with any forms/questionnaires necessary for the health care provider to complete. The ADA Coordinator will evaluate information to determine eligibility within the guidelines of ADA. The ADA Coordinator will then coordinate with the necessary institutional staff and the individual to identify the essential functions of the job or the program of study and determine whether there is an effective, reasonable accommodation that will enable the employee, student, fellow or resident to perform those essential functions (interactive process). The ADA Coordinator will follow-up on the individual’s status/progress on annual basis, or earlier as need arises.

Reasonable accommodations under the ADA is an ongoing process. At any point in time, the individual receiving the reasonable accommodation may request a reevaluation of their request from the ADA Coordinator. At that point, the interactive process will be implemented in order to deal with any new requests and/or revisions to the initial requests.

All medical-related information shall be kept confidential and maintained separately from other personnel records. However, supervisors and managers may be advised of information necessary to make the determinations they are required to make in connection with a request for an accommodation. First aid and safety personnel may be informed, when appropriate, if the disability might require emergency treatment or if any specific procedures are needed in the case of fire or other evacuations. Government officials investigating compliance with the ADA may also be provided relevant information as requested.

Form ADA-100, and attached documentation submitted to the ADA Coordinator, will be maintained in a confidential manner in accordance with applicable federal and state mandated retention schedules.

Refer to the UTHSCSA Handbook of Operating Procedures (HOP), Section 4.2.3, for complete details and procedures for ADA accommodations.

Additional Information
Statistics such as enrollment totals and faculty directories are kept updated on the Health Science Center’s Web site at http://www.uthscsa.edu.
General Regulations and Requirements

Students enrolled in the Health Science Center are subject to all established requirements and regulations of this institution as well as those of any support institution in which they may be enrolled. The UTHSCSA Catalog and the UTHSCSA Student Guide, given to matriculating students and available in the Office of Student Services, contain these requirements and regulations.

Student Background Checks
Recognizing a sound character is vital to health care professions, The University of Texas Health Science Center at San Antonio (UTHSCSA) is committed to admit and retain students* who meet the high professional standards expected of all health care providers and biomedical researchers. UTHSCSA shall require applicants and/or continuing students to undergo criminal background checks (CBC).

1. All applicants, on the application forms, shall be informed of the CBC and required to sign and consent to allow a specific school to obtain the CBC as a part of the admission process.

2. The continuing students, when applicable, shall be required to sign a consent form to allow the respective school to obtain the CBC.

3. The applicants/continuing students shall be responsible for the cost associated with the CBC.

4. The applicants/continuing students shall have the opportunity to review a copy of their own reports. And when inconsistent information is obtained through the CBC, the applicant/student shall be provided the opportunity to clarify the matter.

5. The school shall follow its own established admission/academic disciplinary procedure following the CBC verification.

6. The CBC results shall be kept, confidentially, in separate files, by the respective school as a part of the students’ academic records; for one year from the first day of the school year when the CBC was conducted for applicants and for the duration of a continuing student’s academic career at UTHSCSA.

7. The School shall be required to develop specific policies relating to the sharing of information with clinical sites consistent with FERPA.

In addition, applicants and continuing students shall conform to the policy adopted by each specific school for which the students apply or are admitted. Each of the five schools at UTHSCSA shall develop a policy specific for its applicants and continuing students. The policy shall be approved by The University of Texas System’s Office of General Counsel and shall address, at a minimum, the below listed issues:

*residents, if not employees, are designated as students.

1. The scope of the CBC. How far back will the check go and what it will include, i.e. convictions, deferred adjudications, expunged convictions, etc.

2. When will the CBC be conducted and how often.

3. Who (either the School/program or other state agencies) will review the CBC and determine the student’s status.

4. What criteria the school will use to assess relevancy of the applicant’s or continuing student’s criminal history.

5. Indicate whether any affiliation agreements will include the reference of continuing students’ criminal background checks.

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 of The University of Texas System. Copies of the regulations are printed in this Catalog. 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 “Procedures and Regulations Governing 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 “Procedures and Regulations Governing 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 “Procedures and Regulations Governing Student Conduct and Discipline” should be consulted in reference to any questions concerning student conduct and discipline.

The due process rights 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 “Procedures and Regulations Governing Student Conduct and Discipline.”

Professional Conduct Guidelines
HSC 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. See individual school sections in the Student Guide for details.

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.

II. Student Nonacademic Grievance Procedure

Any student who has a nonacademic grievance concerning the interpretation, application, or claimed violation of her/his rights as a UTHSCSA 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 Health Science Center.

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.

A. 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 Vice President for Academic Administration for final disposition.

B. 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 University of Texas Health Science Center at San Antonio.

C. 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 University of Texas Health Science Center at San Antonio.

Students considering filing a grievance may contact the chief student affairs officer or the appropriate associate/assistant dean of student affairs to receive instructions. (See page 97.)

A. 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.

B. 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 UTHSCSA 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/assistant 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/assistant 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.

C. 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.

D. 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.

E. 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.

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

Use of Student Social Security Number

Disclosure of your Social Security Number is requested for the student records system of The University of Texas Health Science Center at San Antonio and for compliance with Federal and State reporting requirements. Federal law requires that you provide your SSN if you are applying for financial aid. Although an SSN is not required for admission to the University, failure to provide your SSN may result in delays in processing your application or in the University’s inability to match your application with transcripts, test scores, and other materials.

Student SSNs are maintained and used by the University for financial aid, internal verification, and administrative purposes, and for reports to Federal and State agencies as required by law. The privacy and confidentiality of student records is protected by law and the University will not disclose your SSN without your consent for any other purposes except as allowed by law. In accordance with Section 559.003(a) of the Texas Government Code, with few exceptions, the individual is entitled on request to be informed about the information that the institution collects about the individual; under Sections 552.021 and 552.023, to receive and review the information; and under Section 559.004, to have the institution correct information about the individual that is incorrect.

Student Records

The University of Texas Health Science Center at San Antonio is in compliance with the Family Educational Rights and Privacy Act of 1974 and the Texas Public Information Act (Government Code 552) concerning the privacy of educational records and the rights of students to inspect and review those records. (See “Family Educational Rights and Privacy Act” in this Catalog, p. 102.) The chief student affairs officer coordinates the inspection and review procedures of student education records which include admissions, personal, academic, financial, and disciplinary records. The institutional policies are available in the Registrar’s Office.

Internet Access

Students can access their personal and academic information through the Internet at http://inside.uthscsa.edu. This secured site provides a variety of information for students including, enrollment, financial aid, student account, address and telephone numbers, and grades.

Privacy Rights of Students

The Student Records policy includes the following procedures.

No one shall have access to a student’s education records without the written consent of the student except for:
Admission Records
Deceased Students

(Texas Government Code 552-556) copies of their records. These copies will be made at the
made to the chief student affairs officer. Students may have
made available within 45 days after a written request is
contained in their education records. The records will be
Students have the right to inspect and review information
after the first day of class for every semester.
class by notifying the Registrar in writing within 12 days
information except last name, first name, middle initial, school and
Student Right to Access, Copy, and
Challenge Educational Records

Limitations of Student Right to
Access, Copy, and Challenge
Educational Records
Students cannot inspect or review the following confidential records:
• financial information submitted by their parents;
• confidential letters and recommendations associated with
admissions, employment, job placement, or honors to
which they have waived their right to inspect; or
• confidential letters and recommendations placed in the
files prior to January 1, 1975.

Equal Opportunity
To the extent provided by the law, no person shall be excluded
from participation in, be denied the benefits of, or be subject
discrimination under any program or activity sponsored or
conducted by The University of Texas System or any of its
component institutions on the basis of race, color, national
origin, religion, veteran status, disability, sex, age, or sexual
orientation. The procedure for discrimination complaints
can be found in the "UTHSCSA Handbook of Operating
Procedures," Policy 4.2.1.

Professional Liability Insurance
Students enrolled in a health component institution of
The University of Texas System in a program that involves
direct patient care activities are required to purchase profes-
sional liability insurance as a prerequisite to enrollment. The
policy extends coverage to the insured only while he/she is
enrolled in classes.

Student Health Insurance
The Texas Education Code Section 51.952 requires all
Health Science Center students to maintain a valid major
health insurance policy/coverage upon enrollment, and
continuing while registered at UTHSCSA. The require-

Student Right to Access, Copy, and
Challenge Educational Records
Students have the right to inspect and review information
contained in their education records. The records will be
made available within 45 days after a written request is
made to the chief student affairs officer. Students may have
copies of their records. These copies will be made at the

Directory Information

Directory information is available on the Web in the
.edu/StudDirect, and may contain a student's name, school
and class, address, telephone number, photograph, e-mail
address, date and place of birth, degrees and awards received,
dates of attendance, major field of study, classification, date
of graduation, class schedules, and the most recent previous
educational institution attended.

Students may withhold all or part of the directory informa-
tion except last name, first name, middle initial, school and
class by notifying the Registrar in writing within 12 days
after the first day of class for every semester.

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ment may be satisfied by either the student’s enrollment in the U. T. System-endorsed student health insurance plan, or by the student presenting proof of comparable health insurance from another source, following policy guidelines issued by the U. T. System Chancellor. Each student must submit proof of coverage to the registrar each semester. Unless proof of proper insurance coverage is received by the Registrar’s Office prior to the generation of your bill, you will be charged for a policy with Mega Life Insurance. The Mega Life fee is non-removable once the payment due date passes, and non-refundable once paid.

The current annual premium for a student health insurance policy may be included in the calculation of financial need for purposes of determining financial aid awards. The premium amount is subject to review and negotiation with the insurance company.

**Important Information about Bacterial Meningitis**

This information is being provided to all new college students in the state of Texas. Bacterial Meningitis is a serious, 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.

**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
  - 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 Clinic at 567-WELL (9355).
- Contact Web sites:
  - [http://www.acha.org](http://www.acha.org) (click on “Information and Resources,” then “Meningitis in Campus”)

**Hazing Offenses**

Hazing in state educational institutions is prohibited by both state law (Sections 51.936 and 37.151–37.157, Texas Education Code) and by the [Rules and Regulations of the Board of Regents of The University of Texas System](http://www.uthscsa.edu/regents/rules) (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 or safety 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 a not 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.

Series 50101, Section 2.8, of the Rules and Regulations of the Board of Regents of the University of Texas System, provides that:

1. Hazing with or without the consent of a student is prohibited by the System, and a violation of that prohibition renders both the person inflicting the hazing and the person submitting to the hazing subject to discipline.
2. Initiations or activities by organizations may include no feature which is dangerous, harmful, or degrading to the student, and a violation of this prohibition renders both the organization and participating individuals subject to discipline.

Activities which under certain conditions constitute acts that are dangerous, harmful, or degrading, in violation of Rules and Regulations, include but are not limited to:
- calisthenics, such as sit-ups, push-ups, or any other form of physical exercise;
- total or partial nudity at any time;
- the eating or ingestion of any unwanted substance;
- the wearing or carrying of any obscene or physically burdensome article;
- paddle swats, including the trading of swats;
- pushing, shoving, tackling, or any other physical contact;
- throwing oil, syrup, flour, or any harmful substance on a person;
- rat court, kangaroo court, or other individual interrogation;
- forced consumption of alcoholic beverages either by threats or peer pressure;
- lineups intended to demean or intimidate;
- transportation and abandonment (road trips, kidnaps, walks, rides, drops);
- confining individuals in an area that is uncomfortable or dangerous (hot box effect, high temperature, too small);
- any type of personal servitude that is demeaning or of personal benefit to the individual members;
- wearing of embarrassing or uncomfortable clothing;
- assigning pranks such as stealing, painting objects, harassing other organizations;
- intentionally messing up the house or room for clean up;
- demeaning names;
- yelling and screaming; and
- requiring boxing matches or fights for entertainment.

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 which 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 enforce its own rules against hazing.

Information Security
UTHSCSA’s information resources are strategic and vital assets belonging to the people of Texas and support the institution’s teaching, education, patient care, research, and public service missions. The Information Security Office (ISO) is responsible for providing leadership to ensure security measures are implemented to protect information resources from accidental or unauthorized access, disclosure, modification, or destruction, as well as ensure the availability, integrity, utility, authenticity, and confidentiality of information. While the ISO provides leadership, information security is the responsibility of all computer users and therefore students are expected to comply with the following Information Security policies from the UTHSCSA Handbook of Operating Procedures (HOP).

5.8 INFORMATION SECURITY
5.8.1 Information Security Function
5.8.2 Definitions
5.8.3 Computer Crimes Law
5.8.4 Access Control and Password Management
5.8.5 Information Security Incident Reporting Policy
5.8.7 Network Access Policy
5.8.9 Computer Virus Protection
5.8.10 Acceptable Use of Information Resources Policy
5.8.11 Peer-to-Peer Access Policy
5.8.12 Portable Computing Policy
5.8.13 Security Monitoring
5.8.17 Information Security Training and Awareness Policy
5.8.20 Information Resources Privacy Policy

Sexual Assault Policy
The policy of The University of Texas Health Science Center at San Antonio is to strive to maintain an environment that is free from intimidation and one in which students may be educated to their fullest potential. The Health Science Center fosters an understanding of difference and cultivates the ethical and moral issues that are the basis of a humane social order. The Health Science Center does not tolerate physical abuse, threats of violence, physical assault, or any form of sexual assault, including, but not limited to, acquaintance or date rape.

A student who individually, or in concert with others, participates or attempts to participate in a sexual offense, including, but not limited to, sexual assault or abuse of, threats against, or the unwanted touching of any other person, can be subject to disciplinary action by the Health Science Center, notwithstanding any action that may or may not be taken by the civil authorities. In addition to incidents that occur on The Health Science Center campus, the Health Science Center may take disciplinary action in response to incidents that take place during official functions of the UTHSCSA or those sponsored by registered student organizations or incidents that have “an affiliation” to the interests of The University of Texas Health Science Center at San Antonio, regardless of the location in which they occur.

Anyone who is a victim of any form of sexual assault should immediately call the police (911). The police will provide transportation to the University Hospital Emergency Center for medical treatment and evidence collection. Reporting an assault does not mean that the victim must press charges or take the case to criminal trial or a Health Science Center disciplinary hearing. Even if a victim has not decided whether to press charges, informing the police and going to the hospital will allow for her/his emotional and medical needs to be attended to and will preserve the victim’s option to press charges.

A student may file a written complaint against another student by directly contacting the chief student affairs officer or the appropriate associate/assistant dean for student affairs. The written complaint must be submitted within 30 working days of the alleged violation. The student may choose to file a complaint with the chief student affairs officer or with her/his associate/assistant dean for student affairs whether or not he/she chooses to press criminal charges. The chief student affairs officer shall immediately refer the complaint to the appropriate associate/assistant dean for student affairs. The student who files a complaint against a faculty or staff member may contact her/his associate/assistant dean for student affairs or the chief student affairs officer.

The written complaint and subsequent record of any administrative adjudication is confidential. This record is maintained in the office of the appropriate dean or the chief student affairs officer, whoever conducted the administrative action.

The University of Texas Health Science Center at San Antonio Counseling Service (567-2648) and the Sexual Assault Crisis and Resource Center Hotline (349-7273) are available to provide support services for anyone affected by any form of sexual assault. Students who may have been assaulted by someone who is not affiliated with UTHSCSA may contact any of the available Health Science Center support services.

When a student reports that the campus regulations prohibiting sexual assault have been violated, certain provisions which provide for the protection of the emotional health and physical safety of the complainant can be made available. Such provisions may include modification of a student’s educational environment, (e.g., change in laboratory assignment or alteration of clinical schedule). Such modification will be facilitated through the associate/assistant dean for student affairs in the student’s respective school. If the complainant provides evidence that the accused student
presents a continuing danger to person or property or poses an ongoing threat of disrupting the academic process, the associate/assistant dean for student affairs may take interim disciplinary action against the accused student as appropriate. Disciplinary action may include, but not be limited to, the following: verbal warning, written warning, counseling, suspension, or dismissal.

The UTHSCSA Student Guide outlines several educational and prevention programs and support services which address the issue of sexual assault.

UTHSCSA Sexual Harassment and Sexual Misconduct

I. STATEMENT OF POLICY

The University of Texas Health Science Center at San Antonio is committed to the principle that the University’s working and learning environment be free from inappropriate conduct of a sexual nature. Sexual misconduct and sexual harassment in any form will not be tolerated and individuals who engage in such conduct will be subject to disciplinary action.

II. SCOPE OF POLICY

This policy applies to all University administrators, faculty, staff, residents, fellows, students, visitors and applicants for employment or admission. It applies not only to unwelcome conduct that violates state and federal laws concerning sexual harassment but also to inappropriate conduct of a sexual nature. It is also applicable regardless of the gender of the complainant or the alleged harasser.

III. STATUTORY REFERENCE

Sexual harassment is a form of sex discrimination under Title VII of the Civil Rights Act of 1964, Title IX of the Civil Rights Act of 1972, and the Texas Labor Code, Chapter 21, and it is illegal, and actionable under civil and criminal law.

IV. DEFINITIONS

A. Sexual Misconduct. Sexual misconduct includes unwelcome sexual advances, requests for sexual favors, or verbal or physical conduct of a sexual nature directed towards another individual that does not rise to the level of sexual harassment but is unprofessional and inappropriate for the workplace or classroom.

B. Sexual Harassment. Sexual harassment includes unwelcome sexual advances, requests for sexual favors, verbal or physical conduct of sexual nature when:

1. submission to such conduct is made either explicitly or implicitly a term or condition of employment or student status;
2. submission to or rejection of such conduct is used as a basis for evaluation in making personnel or academic decisions affecting that individual; or
3. such conduct has the purpose or effect of unreasonably interfering with an individual’s performance as an administrator, faculty member, staff, resident, fellow or student, or creating an intimidating, hostile or offensive environment.

C. Examples. Examples of behavior that could be considered sexual misconduct or sexual harassment includes but are not limited to:

1. physical contact of a sexual nature including touching, patting, hugging, or brushing against a person’s body;
2. explicit or implicit propositions or offers to engage in sexual activity;
3. comments of a sexual nature including sexually explicit statements, questions, jokes or anecdotes; remarks of a sexual nature about a person’s clothing or body; remarks about sexual activity; speculation about sexual experience;
4. exposure to sexually oriented graffiti, pictures, posters, or materials; and/or
5. physical interference with or restriction of an individual’s movements.

V. CONSENSUAL RELATIONSHIPS

It is the policy of The University of Texas Health Science Center at San Antonio that the following romantic or sexual relationships are strongly discouraged.

- between a faculty member and a student, resident or fellow who is enrolled in the faculty member’s course or who is otherwise under the supervision of the faculty member, or
- between a supervisor and a person under his or her supervision

This policy is not intended to discourage the interaction of faculty and students, residents or fellows and supervisors and employees where it is appropriate and ethical; however, it is intended to clarify that romantic or sexual relationships often create situations that lead to sexual harassment, conflicts of interest, favoritism, and low morale. Therefore, such relationships are strongly discouraged.

Every consenting romantic and sexual relationship between a faculty member and a student, resident or fellow or between supervisor and employee may potentially evolve into a sexual harassment case with serious implications, either from a subsequent change of attitude by the parties involved or from a contemporary complaint from a disadvantaged third party. Faculty members exercise power over students, residents or fellows, as do supervisors over employees, whether in evaluating them, making recommendations for their promotion or future employment, or conferring other benefits. Others may be adversely affected by the relationship in that it places the faculty member or supervisor in a position to favor or advance one individual’s interest at the expense of others.

As provided in the American Association of University Professors’ policy on consensual relationships, faculty are
expected to be aware of their professional responsibilities in their relationships with students and “avoid apparent or actual conflict or interest, favoritism, or bias.” These relationships are viewed as damaging to the university environment and therefore are strongly discouraged.

Complaints concerning consensual relationships by non-participating individuals whose work or school environment is adversely affected by the behavior will be treated as third-party sexual harassment or sexual misconduct complaints.

VI. RESOLUTION OPTIONS
A person who believes that he or she has been subjected to discrimination or harassment in violation of this policy and seeks to take action may use either the informal resolution process or the formal complaint process or both. The informal resolution and formal complaint resolution process described in this policy are not mutually exclusive and neither is required as a pre-condition for choosing the other; however, they cannot both be used at the same time.

VII. INFORMAL RESOLUTION
This process may be used as a prelude to filing a formal complaint or as an alternative. It is not necessary that this option be used. Anyone who believes that he or she has been subject to sexual harassment or sexual misconduct may immediately file a formal complaint as described in Section VI of this policy. An individual wishing to utilize the informal resolution process should contact the EEO/AA Office or the appropriate Associate/Assistant Dean for Student Affairs or the Associate Dean for Graduate Medical Education of the Medical School as appropriate.

A. Informal Assistance. The individual is provided assistance in attempting to resolve possible sexual harassment or sexual misconduct if the individual does not wish to file a formal complaint. Such assistance includes strategies for the individual to effectively inform the offending party that his or her behavior is unwelcome and should cease, action by an appropriate university official to stop the unwelcome conduct, or mediation. However, the University may take more formal action to ensure an environment free of sexual harassment or sexual misconduct.

B. Timeframe. Informal resolutions will be completed in a timely manner from receipt of a request for informal resolution.

C. Confidentiality and Documentation. The University shall document informal resolutions. The Office of Equal Employment Opportunity/Affirmative Action shall retain the official documentation. The Associate Deans will forward documentation of informal resolutions to the Office of EEO/AA at the conclusion of the process for which they are responsible to conduct. The University will endeavor to maintain confidentiality to the extent permitted by law.

The university will attempt to find the right balance between the individual’s desire for privacy and confidentiality with the responsibility of the University to provide an environment free of sexual harassment.

VIII. COMPLAINT PROCEDURES
(This complaint procedure also constitutes the grievance procedures for complaints alleging unlawful sex discrimination required under Title IX of the Education Amendments of 1972. As used herein, “complaint” is synonymous with “grievance.”)

A. Reporting

1. The University of Texas Health Science Center at San Antonio encourages any person who believes that he or she has been subjected to sexual misconduct or sexual harassment to immediately report the incident to the appropriate supervisor of the accused faculty member or employee, to the EEO/AA Office or when a student, resident or fellow is the complainant or the accused individual, to the appropriate Associate/Assistant Dean for Student Affairs or Associate Dean for Graduate Medical Education of the Medical School. In no case will a complainant be required to report such conduct to the person accused of the misconduct. The complainant will be advised of the procedures for filing a formal complaint of sexual harassment or sexual misconduct. When a supervisor or Associate/Assistant Dean for Student Affairs or Associate Dean for Graduate Medical Education of the Medical School receives a complaint, he or she will immediately notify the EEO/AA Office.

2. Complaints should be filed as soon as possible after the conduct giving rise to the complaint, but no later than 180 days after the event occurred.

3. In order to initiate the investigation process, the complainant should submit a signed, written statement setting out the details of the conduct that is the subject of the complaint, including the complainant’s name, signature, and contact information; the name of the person directly responsible for the alleged violation; a detailed description of the conduct or event that is the basis of the alleged violation; the date(s) and location(s) of the occurrence(s); the names of any witnesses to the occurrence(s); the resolution sought; and any documents or information that is relevant to the complaint. While an investigation may begin on the basis of an oral complaint, the complainant is strongly encouraged to file a written complaint. When a supervisor or the Associate/Assistant Dean for Student Affairs or Associate Dean for Graduate Medical Education of the Medical School receives a complaint with a writ-
ten statement he/she shall immediately notify the EEO/AA Office.

B. Complaint Investigation

1. The Associate/Assistant Dean for Student Affairs or Associate Dean for Graduate Medical Education of the Medical School and/or the Executive Director of the EEO/AA Office as appropriate, is responsible for investigating formal complaints. If the complaint is not in writing, the investigator should prepare a statement of what he or she understands the complaint to be and seek to obtain verification of the complaint from the complainant.

2. Within ten working days of receipt of a complaint the Associate/Assistant Dean for Student Affairs or the Associate Dean for Graduate Medical Education of the Medical School and/or the Executive Director of the EEO/AA Office as appropriate will authorize an investigation of the complaint.

3. As part of the investigation process, the accused individual shall be provided with a copy of the allegations and allowed the opportunity to respond verbally and/or in writing within a reasonable time frame.

4. The complainant and the accused individual may present any document or information that is believed to be relevant to the complaint.

5. Any persons thought to have information relevant to the complaint shall be interviewed and such interviews shall be appropriately documented. Other acceptable methods for gathering information include but are not limited to visual inspection of materials alleged to be offensive and follow-up interviews as necessary.

6. The investigation of a complaint will be concluded as soon as possible after receipt of the written complaint. In investigations exceeding 60 days, a justification for the delay shall be presented to and reviewed by the Executive Director of the EEO/AA Office. The complainant, accused individual and supervisor will be provided an update on the progress of the investigation after the review.

7. Upon completion of the investigation, a written report will be issued. The report shall include: a recommendation of whether a violation of the policy occurred, an analysis of the facts discovered during the investigation, and recommended disciplinary action if a violation of the policy occurred. The written report will be sent to the appropriate administrative official.

8. Written notifications of the findings of the investigation and outcome will be sent to the complainant and the respondent by the appropriate administrative official. The complainant and the respondent have seven (7) working days from the date of the notification letter to submit comments regarding the investigation to the administrative official. However, if a complaint is filed against a student then the complainant and respondent may not receive or comment on the notification letter in accordance with the Family Education Rights and Privacy Act's restrictions on disclosure of educational records.

9. Within thirty (30) working days of receiving any comments submitted by the complainant or respondent, the appropriate administrative official will take one of the following actions: a) request further investigation into the complaint; b) dismiss the complaint if the results of the completed investigation are inconclusive or there is insufficient reasonable, credible evidence to support the allegation(s); or c) find that this policy was violated. A decision that this policy was violated shall be made upon the record provided by the investigator and any comments submitted by the complainant or respondent; and shall be based on the totality of circumstances surrounding the conduct, its severity, frequency, whether it was physically threatening, humiliating, or was simply offensive in nature. Facts will be considered on the basis of what is reasonable to persons of ordinary sensitivity and not on the particular sensitivity or reaction of an individual.

10. If the appropriate administrative official determines that this policy was violated, he or she will take disciplinary action that is appropriate for the severity of the conduct. Disciplinary actions can include, but are not limited to, verbal reprimands, written reprimands, the imposition of conditions, reassignment, suspension, and dismissal.

11. The complainant and the respondent shall be informed in writing of the administrative official’s decision. However, if a complaint is filed against a student, then the determination letter sent to the complainant will be written in compliance with the Family Education Rights and Privacy Act.

12. Implementation of disciplinary action against faculty and employees will be handled in accordance with the University’s policy and procedures for discipline and dismissal of
faculty and employees. The Associate/Assistant Dean for Students or the Associate Dean for Graduate Medical Education of the Medical School will impose disciplinary action, if any, against a student, resident or fellow in accordance with the University's appropriate disciplinary procedures.

IX. PROVISIONS APPLICABLE TO ALL COMPLAINTS

A. Assistance. During the complaint process, a complainant or respondent may be assisted by a person of his or her choice; however, the assistant may not examine witnesses or otherwise actively participate in a meeting or interview.

B. Retaliation. An administrator, faculty member, student, resident, fellow or employee who retaliates in any way against an individual who has brought a complaint pursuant to this policy or an individual who has participated in an investigation of such a complaint is subject to disciplinary action, including dismissal.

C. False Complaints. Any person who knowingly and intentionally files a false complaint under this policy or any person who knowingly and intentionally makes false statements within the course of the investigation is subject to disciplinary action up to and including dismissal from the University.

D. Confidentiality and Documentation. The university shall document complaints and their resolution. The Office of Equal Employment Opportunity/Affirmative Action shall retain the official documentation. The Associate Deans will forward documentation of resolutions to the Office of EEO/AA at the conclusion of the process for which they are responsible to conduct. To the extent permitted by law, complaints and information received during the investigation will remain confidential. Relevant information will be provided only to those persons who need to know in order to achieve a timely resolution of the complaint.

X. DISSEMINATION OF POLICY

A. The policy will be made available to all faculty, employees, students, residents and fellows. Periodic notices sent to students, residents, fellows employees and faculty about the University's Sexual Harassment and Sexual Misconduct Policy will include information about the complaint procedure and will refer individuals to designated offices for additional information.

B. The University periodically will educate and train employees and supervisors regarding the policy and conduct that could constitute a violation of the policy.

Confidentiality
The Health Science Center will, to the extent possible, maintain the confidentiality of information received as a result of the charge and investigation.

Resources for Persons Affected by Sexual Assault
The University’s Sexual Assault Policy is printed in this Catalog (p. 64). Several educational and prevention programs and support services address the issue of sexual assault. Phone numbers are provided for additional information.

UTHSCSA Counseling Service ......................... 567-2648

- individual counseling for all students affected by sexual assault
- consultation on sexual harassment
- referral to other resources
- workshops on any related topic as requested
- workshops on date rape, assault

UTHSCSA Student Health Center... 567-WELL (9355)

UTHSCSA Police Department....................... 567-2800

Emergency Number ......................... 911

- crime prevention presentations which include issues related to assault
- safety escort service — on request at any time (567-2800)
- crime statistics information
- referral to campus and off-campus services

University Hospital Emergency Center ............. 358-2133

- examination and treatment of sexual assault victims
- referral to other services

Rape Crisis and Resource Center 521-7273

- rape crisis support group
- adults molested as children group
- teenage survivors of sexual assault or abuse group
- sexual harassment support group
- male survivors of sexual abuse/assault group
- referral services

Brochures, pamphlets, and other printed material are available from the various campus resources.

Solicitation
Solicitation is defined as the sale or offer of sale of any product or service, whether for immediate or future delivery; the receipt or request for a gift or contribution; and the request that a vote be cast for an agent or candidate, issue, or proposition appearing on the ballot at any election held pursuant to state or federal law.

No solicitation, as defined above, shall be conducted on
General Information

the campus of the Health Science Center with the following exceptions (as outlined in the Regents’ Rules and Regulations, Series 8010):

• Official activities of the Health Science Center itself or its contractors such as bookstores, cafeterias, and vending machines.

• Registered student organizations may collect membership fees and admission for events and similar activities, provided prior approval is obtained from the Director of Student Life and an accounting for such activities is made to the Director of Student Life.

• Major focus for fund-raising activities on the campus of The University of Texas Health Science Center at San Antonio should be to generate funds for Health Science Center programs and the State Employee Charitable Campaign. Requests by other off-campus, nonprofit (501c-3) organizations to conduct fund-raising activities must be forwarded to the Senior Vice President for External Affairs for review. Approval for such events will be given by the Health Science Center Executive Committee. (See the Handbook of Operating Procedures, Section 2.28, “Fund-Raising Activities.”)

Student Safety on Campus

The University Police Department is the agency responsible for law enforcement, security, and emergency response on the campus. A system of card-reader-controlled doors, emergency telephones and intercoms, exterior lighting, a closed-circuit television monitoring system, gated entry, late-entry doors for access to campus buildings, and police patrols are all part of the campus security program. Security awareness and crime prevention programs are provided to inform students and staff of security measures and devices in place, as well as services available through the University Police Department. Detailed information about all of these systems and programs is included in the “University Police” section below.

University Police

Robert K. Bratten, Chief

567-2800 University Police Building

http://www.uthscsa.edu/utpolice

• CALL 911 FOR ANY CAMPUS EMERGENCY•

Mission of the University Police Department

To support UTHSCSA in its training of Health Care Specialists by:

1. Ensuring that faculty, staff, and students enjoy a safe place to teach, work, and study.

2. Protecting state and personal property within our jurisdiction.

3. Assisting and directing the many visitors and patients at the campus.

4. Presenting structured programs to faculty, staff, and students which identifies their role in Crime Prevention.

5. Ensuring cost-effective use of available resources in pursuit of its mission.

Overall, this department exists for the:

1. Prevention of criminal activity

2. Detection of criminal activity

3. Apprehension of criminal offenders

4. Protection of Constitutional guarantees

5. Control of traffic

6. Creation and maintenance of a feeling of security on the campus

All criminal offenses and traffic violations which occur on University property are to be reported to the University Police Department. Students and employees should report these offenses to the University Police by calling ext. 2800 (567-2800) or by using an emergency intercom.

The University Police Department is a service department operating 24 hours a day, seven days a week. The department is charged with the responsibility of providing law enforcement and security service to those persons directly or indirectly associated with the Health Science Center; of protecting lives as well as the property of the individual and the University against negligence or malicious destruction; of preserving order; and of upholding and enforcing the general laws of the State of Texas, the Regents’ Rules and Regulations, and applicable HSC policies and procedures. The Department includes duly commissioned peace officers (as authorized by Article 51.203 of the Texas Education Code) and noncommissioned personnel.

Parking

Students may park in any parking lot, within any Zone, for which they have been issued a permit.

A parking permit, which hangs from the car’s interior rear view mirror, must be displayed and can be transferred from car to car by the owner. Parking permits may be purchased in the Parking Service Office, next
to the Bookstore, in Parking Garage B. Call 562-PARK for information.

Special parking areas are provided for the disabled, car pools, two-wheeled vehicles, and bicycles. Self-adhering decals are affixed to two-wheeled vehicles.

All of the parking on the campuses of the UTHSCSA are established in Zones. Within each zone spaces are available for both reserved and non-reserved parking. Reserved spaces are marked as such, and are reserved for a specific permit holder. A set number of each zone category, and the number of reserved spaces within each zone, has been established. All staff and students are eligible for any parking zone that is available at the time of registering. A Waiting List for more desirable parking spaces or assignments, and available to everyone, is maintained by the Parking Service Office.

Zone I parking spaces are located within the parking garages, with Reserved spaces being specifically assigned to the permit holder and Non-Reserved spaces designating the roof spaces.

All Zone I parking, including roof spaces, are reserved 24 hours a day, seven days a week. Zone II parking areas are denoted by silver signs, and are located nearest to the buildings. Zone III parking areas are located just beyond the Zone II areas, and are denoted by red signs. Zone IV parking areas are located farther from the buildings, and are denoted by blue signs. Zone V parking areas are located only at the Lot #17 area, near the Allied Health Building, and denoted by black signs. Shuttle service connects that parking area with all areas of the campus. Motorcycles and bicycles must be parked in specifically designated areas.

Parking permits expire on August 31st of each year. Permit fees are paid in one payment for the full permit year. Incoming students pay for the full permit year, plus a prorated amount for the months remaining from their enrollment registration to the current expiration date. Annual fees for the various permits are: $480 for the Garage Reserved, $300 for Garage Roof, $360 for all other reserved spaces in each zone, $240 for Zone II non-reserved, $120 for Zone III non-reserved, $60 for Zone IV non-reserved, $48 for Zone V non-reserved and Motorcycles, and $12 for Bicycles. Car Pool permits are available for each zone of parking at varying amounts. Car Pools must consist of at least three persons with separate domiciles, if residing inside Loop 1604, and at least two members with separate domiciles if residing outside Loop 1604. Permits may be purchased during designated registration times or at the Parking Service Office in the University Police Building throughout the year, Monday–Friday from 8 a.m.–5 p.m.

Students are required to be familiar with and follow parking and traffic regulations published by University Police and issued to each permit holder.

University Police are responsible for enforcing Parking and Traffic Regulations that have been approved by the President and Board of Regents. Changes to these regulations are by recommendation of the Parking and Traffic Safety Committee and approval by the President and Board of Regents.

Parking citations can be paid at the Parking Service Office during all hours of operation. Citations may be appealed to the Chief of Police by submitting a completed appeal form, within 10 calendar days of the citation’s date of issue, to the Parking Service Office. Any person appealing a citation who is not satisfied with the decision of the Chief of Police may have the appeal further reviewed by the University Parking and Traffic Committee. The complete guidance for submitting appeals is contained in the Parking and Traffic Regulations.

Services provided for students include:

- escorting persons to cars at any time when safety is a concern within campus boundaries
- unlocking vehicles when keys are locked inside
- managing the campus “Lost and Found”
- providing a boost for dead vehicle batteries
- teaching defensive driving classes for insurance purposes only (no ticket abatement program is available)
- fingerprinting services provided for a fee for licensure and as part of “Operation Identification” (free for children)
- publishing monthly crime statistics
- publishing law enforcement and security information

In addition to entry control stations at each entrance to the campus, intercoms can be used for direct communication with University Police. The intercom locations are:

- in or adjacent to campus parking lots
- late entry doors
- all elevators

## Campus Security Policies and Crime Statistics

This information is being provided as part of the HSC’s commitment to security and personal safety on campus. This document serves as the University Police statement required for compliance with The Student Right-To-Know Act and Campus Security Act of 1990.

UTHSCSA is a state-supported member institution of The University of Texas System which is located within the San Antonio Metropolitan area. (For information on The University of Texas Institute of Biotechnology, see “The University of Texas Institute of Biotechnology Law Enforcement and Security Information,” Policies and Crime Statistics booklet.) The Central Campus is located in the heart of the South Texas Medical Center at 7703 Floyd Curl Drive. An extension to the Central Campus, the North Campus, is located at 8403 Floyd Curl Drive.

Close to 3,000 students are enrolled in UTHSCSA. Approximately 5,000 faculty and staff are employed by the Health Science Center. Patients and visitors to the campuses number approximately 300,000 annually.
Reporting of Criminal Actions, Suspicious Activities, or Emergencies

The University Police Department is the agency responsible for law enforcement, security, and emergency response at UTHSCSA. The office, located on the Central Campus (7703 Floyd Curl Dr.) in the University Police Building, is open 24 hours a day, seven days a week. The department is staffed by professional personnel, including certified licensed police officers, certified communications operators, security officers (guards), and civilian administrative support personnel. All police officers are armed.

To report a crime or emergency, members of the campus community can contact the University Police Department by calling 567-2800 or 911. Both numbers are answered by a trained communications officer. For this purpose, free on-campus public telephones are located in hallways and other public areas of all campus buildings.

A number of marked interior and exterior emergency telephones and intercoms are located throughout the campus. These telephones and emergency intercoms can be used to report a criminal incident, suspicious activity, a fire, or any other type of emergency. They also may be used to request a personal escort anywhere on campus.

Assistance and support from other agencies or departments in the area can be obtained immediately either by computer, telephone, or radio. These agencies include other campus police departments, the San Antonio Police Department, Bexar County Sheriff’s Department, the Texas Department of Public Safety, federal law enforcement agencies, the San Antonio Fire Department, and the University’s Physical Plant Department.

All campus telephones have been affixed with a distinctly colored label containing the applicable telephone numbers for both non-emergency and emergency assistance. The campus police telephone numbers of 567-2800 and 911 are listed in the campus telephone directories and in other University Police Department and campus publications.

Access to Campus Facilities

Most campus buildings and facilities are accessible to members of the campus community and their guests, patients, and visitors during normal business hours (8 a.m.–5 p.m., Monday–Friday) and for limited designated hours on Saturdays (excluding most holidays). Students have access to the buildings during all scheduled class sessions including laboratory, library study, and research periods.

All campus buildings are locked after normal business hours, weekends, and holidays. Persons needing to enter a building must possess a card/key for entry at designated late-entry doors. Late-entry doors are equipped with a card reader and some have an intercom and closed-circuit television camera. The electronic access control system can both deny or allow access through a building’s exterior door and maintains a central record of which access cards have been used (and when) to gain access.

All exterior building doors on the campus are equipped with electronic alarms which annunciate at the University Police Department when opened during prohibited hours. Each alarm is respond to by a police officer or security officer (guard) or both.

Maintenance of Campus Security Devices

The University is committed to campus security and safety. Exterior lighting is an important part of this commitment. Parking lots, pedestrian walkways, and building interiors are well lighted. Formal surveys of exterior lighting on campus are conducted by representatives of the Physical Plant Department. Officers of the University Police Department conduct campus lighting surveys on a daily basis. Additionally, formal surveys are conducted biweekly of all electronic security devices, emergency telephones, and intercoms. Members of the campus community are encouraged to report any exterior lighting, emergency telephone, or intercom deficiencies to the University Police Department at 567-2800.

Exterior doors on campus buildings are locked and secured daily by University Police officers or security officers. Doors and security hardware operating deficiencies are reported daily by these officers. The Property and Facilities Coordinator reports the deficiencies to Physical Plant officials and follows through to make sure they are repaired in a timely manner.

Crime prevention specialists of the University Police Department regularly survey the grounds of the campus and report shrubbery, trees, and other vegetation that should be trimmed for safety purposes.

Most parking lots and public areas of the campus are surveyed by closed-circuit television cameras monitored by the University Police Department. Parking lots are actively patrolled by police officers and security officers (guards) of the University Police Department.

Law Enforcement Authority and Interagency Relationships

The law enforcement officers (police officers) of the University Police Department receive their police authority from article 51.203 of the Texas Education Code. This statute was passed in 1969 and amended in 1987 by the Texas Legislature. Officers commissioned under this act by The University of Texas Board of Regents have full law enforcement authority and their jurisdiction includes the entire county where property owned, leased, rented, or otherwise controlled by the university is located. The UTHSCSA police officers are licensed, as are all other police officers of this state, by the Texas Commission on Law Enforcement Officers Standards and Education upon meeting the required minimum standards and completing the basic police officers training course consisting of at least 820 hours of required basic training. Additional proficiency training is provided each officer annually. Officers patrol the campuses on foot, on bicycle, and by vehicle 24 hours a day, seven days a week, enforcing University rules and regulations and State laws.
The University Police Department maintains a close working relationship with the San Antonio Police Department, state and federal law enforcement agencies, and all appropriate elements of the criminal justice system. Regular meetings are held both on a formal and an informal basis. Crime-related reports and statistics are routinely exchanged.

Security Awareness and Crime Prevention/Community Policing Programs
Preventing crimes from occurring, rather than reacting after the fact, is the philosophy of UTHSCSA. 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 UTHSCSA:

1. New Student Orientation
   A crime prevention presentation accompanied by brochures and other printed material is made available to all new students throughout the year.

2. New Employee Orientation
   A crime prevention presentation accompanied by brochures and other printed material is made available to all new employees throughout the year as requested by the Department of Human Resources.

3. Emergency Intercom System
   All emergency telephones and intercoms (interior, exterior, late-entry doors, 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, security officer, or communications officer.

4. 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.

5. 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.

6. Crime Prevention Presentations
   Numerous crime prevention presentations are made annually to campus faculty, staff, and students.

7. 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.

8. Crime Prevention Publicity
   Crime prevention articles and crime statistics are distributed monthly to the campus community through the University Police Newsletter.

9. 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.

10. Sexual Assault Awareness, Education, and Prevention
    Programs are presented throughout the year to the campus community.

11. Security Surveys
    Comprehensive security surveys or audits are made for a number of campus departments and facilities each year.

12. Facilities Surveys
    Comprehensive annual surveys of exterior lighting, doors, and grounds are conducted by the University Police Department’s crime prevention specialists.

13. 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.

14. Key Control
    The University Police Department is the custodian of all campus building interior and exterior door keys/card-keys. Cores are not changed and keys are not issued except in those instances which conform to established university policy.

15. Area Crime Analysis
    On a quarterly basis, a report is compiled using the information furnished by the San Antonio Police Department and 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.

16. Shuttle Service
    The Shuttle Bus Service operates an inbound and outbound route between 7703 and 8403 Floyd Curl Drive campuses. The shuttles are traveling in opposite directions to allow passengers a shorter travel time depending on their location and destination. Hours of operation are from 5:26 a.m. to 9:57 p.m. Monday through Friday, except holidays. In addition to all cam-
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. University Police Newsletter
   A one-page newsletter published monthly contains crime prevention information and a synopsis of crimes occurring on campus the previous month. It can be expanded as needed.

3. Special Crime Alerts
   If circumstances warrant, special crime bulletins can be printed and distributed throughout the campus.

4. Electronic Mail
   In extreme situations, crime bulletins can be prepared and disseminated, utilizing the campus electronic mail system.

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 Crime Awareness and Campus Security Act of 1990. Persons with questions about the information may contact the Chief of Police at (210) 567-2790. Information available upon request.

Definitions

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 University of Texas Health Science Center at 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 13.22, Texas Code of Criminal Procedure]

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.”

Law Enforcement and Security Information — IBT

The University of Texas Institute of Biotechnology (UTIBT) is part of UTHSCSA. Located within the Texas Research Park, the facility is 19 miles from the main campus in Medina and Bexar Counties.

Access to IBT Facilities

The UTIBT facilities are accessible to members of the campus community and their guests, patients, and visitors during normal business hours, 8 a.m.–5 p.m., Monday–Friday (excluding most holidays).

After normal business hours, weekends and holidays, the UTIBT buildings are locked. Persons needing entry must possess a card/key to enter. The electronic access control system can deny or allow access through a building’s exterior doors and maintains a central record of which card/keys have been used (and when) to gain access.

All exterior building doors on the campus are equipped with electronic alarms which annunciate at the University Police Department when opened during prohibited hours. Each alarm is responded to by a police officer or security officer (guard) or both.
Reporting of Criminal Actions, Suspicious Activities, or Emergencies

The UTHSCSA University Police Department is the agency responsible for law enforcement, security, and emergency response at Texas Research Park.

To report a crime or emergency, members of the UTIBT campus community can easily contact the University Police Department by dialing ext. 2800. This number is answered by a trained police communications operator.

An outdoor telephone is located adjacent to the UTIBT’s front door. It allows a caller to communicate with the police communications operator on the main campus. The caller must dial ext. 2800.

Emergency Assistance regarding Fire/Smoke emergencies may be obtained immediately by dialing 911. The San Antonio Fire Department, Emergency Medical Service will respond.

Law Enforcement and Security Information — RAHC

The Harlingen Regional Academic Health Center (RAHC) is an extension campus of UTHSCSA, a state-supported member institution of The University of Texas System, which is located within the City of Harlingen, Cameron County, Texas. The 22-acre campus is located in the heart of the Valley Baptist Medical Center at 2102 Treasure Hills Blvd.

Access to RAHC Campus Facilities

The University Police Department operates 24 hours a day, seven days a week.

The Medical Education Division Building is accessible to members of the campus community and their guests and visitors during normal business hours (8 a.m. to 5 p.m., Monday through Friday). Visitors and Guests must register at the Security Desk if they are not accompanied by a University Official.

The 1st Floor of the Medical Education Division Building is open to the general public during the Medical Library Hours as follows:
- 7:30 a.m. to 11:00 p.m. Monday through Thursday
- 7:30 a.m. to 9:00 p.m. Friday
- 9:00 a.m. to 8:00 p.m. Saturday
- 1:00 p.m. to 11:00 p.m. Sunday

Library guests are not required to register at the Security Desk; however, they are limited to access the 1st floor only. Library guests must register at the Security Desk for access to the 2nd and 3rd floors in accordance with RAHC Visitor Log Procedures.

Select Faculty, Staff, Students and Residents have access to the building 24 hours, 7 days per week. Students have access to classrooms in accordance with class times and Rooms Scheduling. Students have free access to the 1st Floor Student Lounge and Refreshment Center at all times. Students are encouraged to utilize the Medical Library for studying. After Library hours or at the student’s discretion, the Regional Dean has designated Student Study Areas as follows:
- 2nd Floor:
  - Room 2.122 Computer Lab
  - Room 2.124 Study Lounge
- 3rd Floor:
  - Room 3.124 Study Lounge

The campus building is locked after Medical Library hours and holidays. Persons needing to enter the building must possess a card/key for entry at designated late-entry doors. Late-entry doors are equipped with a card reader and have an intercom and closed-circuit television camera. The electronic access control system can both deny or allow access through a building’s exterior door and maintains a central record of which access cards have been used (and when) to gain access. All exterior building doors on the campus are equipped with electronic alarms which annunciate at the University Police Department when opened during prohibited hours. A police officer or security officer (guard) or both respond to each alarm.

Law Enforcement and Security Information — Laredo

The Laredo D. D. Hachar Building is an extension campus of UTHSCSA, a state-supported member institution of The University of Texas System which is located within the City of Laredo, Webb County, Texas. The Laredo campus is located at 1937 Bustamante St., Laredo, Texas 78401.

Access to Laredo Extension Campus Facilities

The University Police Department operates 7 a.m. to 11 p.m., seven days a week.

The D. D. Hachar Building is accessible to members of the campus community and their guests and visitors during normal business hours (8 a.m. to 5 p.m., Monday through Friday). Visitors and Guests must register at the Security Desk if they are not accompanied by a University Official.

The D. D. Hachar Building Library is open to HSC faculty, staff, students, and Mercy Hospital employees. Library hours are as follows:
- 12:00 to 8:00 p.m. Monday through Wednesday
- 12:00 to 9:00 p.m. Thursday
- 12:00 to 5:00 p.m. Friday
- Closed Saturday and Sunday

Library guests are not required to register at the Security Desk; however, they are limited to access the 1st floor only as per Visitor Log Procedures.

Select Faculty, Staff, Students, and Residents have access to the building 8 a.m. to 10 p.m., 7 days per week. Students have free access to the 1st Floor Student Lounge and Refreshment Center at all times. Students are encouraged to utilize the Library for studying.
Places where weapons are prohibited
A person commits an offense of the Texas Penal Code, 46.03, if, with a firearm, illegal knife, club, or prohibited weapon listed in Section 46.05(a), excluding small dispensers of mace or pepper spray, he/she intentionally, knowingly, or recklessly goes on the premises of a school or an educational institution, whether public or private, unless pursuant to written regulations or written authorization of the institution. "Premises" means a building or a portion of a building and also includes any vehicles used as transportation by the educational institution. The term does not include any public or private driveway, street, sidewalk or walkway, parking lot, parking garage, or other parking area. An offense under this section is a third degree felony.

Things to do if you are a crime victim:
• Contact the University Police as soon as possible.
• Inform the University Police communications operator of the description and direction of travel taken by the criminal. In the description of the criminal for the communications operator, include race, sex, clothing description, height/weight, color of hair/eyes, any unusual features or jewelry, and a description of the vehicle.
• Remember as much as possible about the criminal and relay that information to the communications operator.
• Remain on the telephone with the communications operator until he/she tells you to hang up.
• Do not confer with other individuals who may have been involved in the incident.
• Do not allow any person in or near the area where the incident took place.

Personal Safety and Crime Prevention
• Don’t dismiss suspicious people or situations.
• If a person is acting suspiciously in the area, call the University Police.
• Don’t be in harm’s way; avoid dangerous situations.
• Be aware of surroundings.
• Jogging or bicycling should be done during daylight hours, if at all possible.
• Do not wear headsets when walking or bicycling; they prevent the wearers from hearing their surroundings.

Smoking Policy
One mission of the HSC is to promote public health. For this reason, the entire campus is smoke free.

Student Consumer Information
In addition to the information in Student Safety on Campus, information about campus security and crime statistics as outlined in the Student Right to Know and Campus Security Act is contained in this Catalog and is available from the Office of Student Services.
Information on the graduation rate is available from the Registrar.

As provided for in the Americans with Disabilities Act (ADA), The University of Texas Health Science Center at San Antonio will assist students with disabilities. (See “Office of Student Life.”)

**Student Debts**

The university is not responsible for debts contracted by individual students or by student organizations and will not assume the role of a collection agency or arbitrate disputes between students and creditors. It does, however, expect students and organizations to discharge contractual obligations.

**Student E-mail Accounts**

Every student is issued a university e-mail address and account at the time when the student first enrolls. As a standing university policy, only the students’ university e-mail address shall be used for any electronic institutional communications of an official nature.

For help with your UTHSCSA e-mail account, see [http://www.uthscsa.edu/computing](http://www.uthscsa.edu/computing) or contact Triage (Computing Resources help desk) at 567-2069.

**UTHSCSA Student Guide**

The UTHSCSA Student Guide is an official publication of UTHSCSA and a companion piece to this Catalog. All students are responsible for knowing its contents as well. The Guide includes helpful information for students, as well as more school-specific information, such as clinic attire, helpful telephone numbers, student organizations, honors, etc.

**Student Papers**

Research papers and theses authored by students will be made available to the public.

**Student Travel Policy**

Section 51.949 requires all state institutions adopt rules and regulations governing student travel as defined below:

The trip is undertaken by one or more currently enrolled students to reach an activity or event that meets all of the following criteria:

1) An activity or event organized and sponsored by UTHSCSA. (The event shall be planned and funded by the institution and approved by a designated administrator.)

2) The activity or event is located more than 25 miles from UTHSCSA campuses.

3) Travel to the activity or event is funded and undertaken using a vehicle owned or leased by UTHSCSA; or attendance at the activity or event is required by a registered student organization and has prior written approval by the appropriate institutional officer. UTHSCSA does not plan, fund, or sponsor any school-related activity for students, using university-owned or leased vehicles, on sites more than 25 miles from its campuses.

UTHSCSA, however, encourages all students to observe the following guidelines when traveling away from campuses:

4) All occupants of 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.

5) All occupants of motor vehicles shall not consume, possess, or transport any alcoholic beverages or illegal substances.

6) 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.

7) All operators of motor vehicles shall have valid operators’ licenses and be trained as required by law to drive the vehicles.

8) All 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.

9) 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 UTHSCSA, whichever is lower, without scheduled rest stops or overnight stops.

10) When and if UTHSCSA rents cars for students to travel, all applicable requirements of the state contracts for rental cars and the Texas System Business Procedure Memoranda apply.

11) When traveling by common carriers, observe the carrier’s safety guidelines.
General Academic Policies

Admissions Requirements and Application Procedures

Detailed information about admission requirements and application procedures is provided in the Viewbook of each school (http://studentservices.uthscsa.edu/publications/Publicat.html). The Viewbooks are official publications of the Health Science Center and supplements to this Catalog.

Requests for admissions information are processed by the Office of the Registrar. The following admissions offices are the sources of Applicant Viewbook:

- Allied Health Sciences Admissions
- Dental Admissions
- Medical Admissions
- Graduate Admissions
- Nursing Admissions
- UTHSCSA Office of the Registrar
  - Mail Code 7702
  - 7703 Floyd Curl Dr.
  - San Antonio TX 78229-3900

Guidelines for Student Admission Selection

Student Admissions Committees throughout UTHSCSA 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 possible, candidates will be interviewed prior to making admissions decisions. Elements that may be included in consideration of applicants:

- 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
- 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)
- 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 resident, or permanent Texas resident alien
- Volunteer activities in health care related areas

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.

The State of Texas provides financial support to residents of Texas for educational opportunities; therefore admission of applicants to schools/programs within the UTHSCSA should encourage admission of Texas residents and permanent Texas resident aliens.

Texas Core Curriculum Requirements

Students who will be receiving their first baccalaureate degrees from The University of Texas Health Science Center at
San Antonio (UTHSCSA) must successfully complete the Texas Core Curriculum requirements. The core curriculum consists of 42 semester credit hours in specified component areas. The table below lists core curriculum requirements and courses that may be used to satisfy them.¹

If a student's transcript from another Texas public college or university indicates that the student has completed that institution's core curriculum, no additional core curriculum requirements will be imposed. If a student has not completed the core requirement at another Texas institution prior to entering UTHSCSA, UTHSCSA will accept academic credits from another Texas public college or university 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.

**Scholarship Awards Policy**

Twice annually, or as appropriate, the director of financial aid will submit scholarship information to the respective associate/assistant dean for student affairs. The following data will be supplied to each associate/assistant dean:

1. Name of the scholarship fund
2. Current amount available to be awarded
3. Award criteria and whether or not financial need is a consideration

Each school determines the selection method for making scholarship awards. A school may consider any of the elements contained within the UTHSCSA Guidelines for Student Admission Selection in awarding scholarships. Each school will identify the specific elements that will be used in awarding scholarships. Continuation of scholarship(s) is dependent upon academic performance. Recommendations for awards from the dean will be forwarded to the director of financial aid and the chairperson of the UTHSCSA Loan and Scholarship Committee for approval at the next committee meeting.

Awards will be presented to the recipients at the appropriate times as determined by the respective associate deans and the director of financial aid. No scholarship dollars will be awarded to recipients without approval of the Committee.

**HSC Competitive Scholarships**

The University of Texas Health Science Center at San Antonio offers Competitive Scholarships on a school-by-school basis as funds allow. All matriculating students are eligible to apply for competitive scholarships. Each School…

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¹ Texas Common Course numbers are provided for guidance. Information is available online at [http://www.tcccs.org](http://www.tcccs.org). Click on ACGM (The Lower-Division Academic Course Guide Manual of Texas Higher Education Coordinating Board Community and Technical Colleges Division). Applicants are encouraged to contact the UTHSCSA Office of the Registrar or the respective school/program office to inquire about other courses that may satisfy Core Curriculum requirements.

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### Texas Core Curriculum Component Areas and Requirements

<table>
<thead>
<tr>
<th>Component Area</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Communication</strong> (English rhetoric/composition)</td>
<td>6</td>
</tr>
<tr>
<td>ENGL 1301, ENGL 1302, ENGL 1311, ENGL 1312, ENGL 2311, ENGL 2314, ENGL 2315, or equivalent*</td>
<td>6</td>
</tr>
<tr>
<td><strong>Mathematics</strong></td>
<td></td>
</tr>
<tr>
<td>• 3 hours in Algebra - MATH 1314 or higher</td>
<td></td>
</tr>
<tr>
<td>• 3 hours in Statistics – MATH 1342, MATH 1442, MATH 2342, MATH 2442, or PSYC 2317, or equivalent</td>
<td>9</td>
</tr>
<tr>
<td><strong>Natural Sciences</strong></td>
<td></td>
</tr>
<tr>
<td>– Courses with prefixes BIOL, CHEM, GEOL, PHYS, HORT, or other natural sciences</td>
<td>6</td>
</tr>
<tr>
<td><strong>Humanities and Visual and Performing Arts</strong></td>
<td></td>
</tr>
<tr>
<td>Must include:</td>
<td></td>
</tr>
<tr>
<td>• 3 hours in visual/performing arts – Courses with prefixes ARTS, DANC, MUAP, MUEN, MUSI, DRAM, or equivalent</td>
<td>6</td>
</tr>
<tr>
<td>• 3 hours in &quot;other,&quot; including literature, philosophy, modern or classical language/literature, and cultural studies**</td>
<td></td>
</tr>
<tr>
<td><strong>Social and Behavioral Sciences</strong></td>
<td></td>
</tr>
<tr>
<td>Must include:</td>
<td></td>
</tr>
<tr>
<td>• 6 hours in U.S. history – either HIST 1301 &amp; HIST 1302, or HIST 1301 &amp; HIST 2301</td>
<td>15</td>
</tr>
<tr>
<td>• 6 hours in political science – GOVT 2301 &amp; GOVT 2302, or GOVT 2301 &amp; GOVT 2305, or GOVT 2301 &amp; GOVT 2306, or GOVT 2305 &amp; GOVT 2306.</td>
<td>6</td>
</tr>
<tr>
<td>• 3 hours in social/behavioral science – Courses with prefixes ANTH, ECON, CRJ, GEOG, PSYC, SOCI, SOCW</td>
<td>6</td>
</tr>
</tbody>
</table>

**Total Texas Core Curriculum Semester Credit Hours**

42

* Communication application of English means the basic proficiency skills acquired during introductory courses and including a working competency in grammar, writing, speaking and listening/comprehension in English.

** Humanities application of language skills includes a study of literature in the original language, and/or the cultural studies related to a modern or classical language.

The table above lists courses that may satisfy Core Curriculum requirements. Each School will develop specific guidelines and information for applying for, and criteria for awarding the Scholarships. The Competitive Scholarship must be recommended by the Scholarship Committee of each school, with final approval from the HSC Scholarship and Loan Committee. Applicants should contact the appropriate School within the HSC 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 HSC paying resident tuition under the Competitive Scholarship criteria must not exceed five percent of the total number of students at the HSC. 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.

### “Fresh Start” Admission

An applicant for undergraduate admission who is a Texas resident may seek to enter this institution pursuant to the state’s “academic fresh start” statute. Texas Education Code § 23.021. Applicants should contact the appropriate School within the HSC for information about the availability of scholarship funds and application information.
51.931. When the applicant informs the admissions office in writing of her or his election under the statute, the institution will not consider in the admissions decision any academic course credits or grades earned by the applicant 10 or more years prior to the starting date of the semester in which the applicant seeks to enroll. An applicant who makes the election to apply under this statute and is admitted as a student may not receive any course credit for courses taken 10 or more years prior to enrollment under academic fresh start.

An applicant who has earned a baccalaureate degree under the “academic fresh start” statute (Texas Education Code, Section 51.931, and applies for admission to a post-graduate or professional program, will be evaluated only on the grade point average of the course of work completed for that baccalaureate degree and the other criteria stated herein for admission to the post-graduate or professional program.

Texas Success Initiative (TSI)
The University of Texas Health Science Center at San Antonio (UTHSCSA) must assess the academic skills of each entering undergraduate student prior to enrollment (Texas Education Code 51.3062—Texas Success Initiative).

The following assessment instruments will be used to assess academic skills: ASSET and COMPASS (offered by ACT); ACCUPLACER (offered by The College Board); and THEA (formerly TASP test) offered by National Evaluation Systems, Inc.

Students admitted to undergraduate programs at UTHSCSA will be required to submit, prior to the end of their first semester, official documents verifying the student has met the minimum TSI standards. Official documents must be sent directly to the UTHSCSA Registrar from a previous college or university or from the testing agency (i.e., ACT, The College Board, or National Evaluation Systems).

The school or department in which a student is enrolled will advise students who have not met the minimum standards as outlined in the law. Working with the student, the school or department representative will determine a plan for academic success for the student.

Students enrolled in certificate programs of one year or less, are exempt from this requirement. The Emergency Medical Technology Basic and Paramedic certificate programs at UTHSCSA qualify for this exemption.

Individual students in other UTHSCSA undergraduate programs may qualify for other exemptions. Exemptions for these students will be assessed on an individual basis.

State Approved Minimum Passing Standards for TSI Assessment Instruments

ASSET: Reading Skills – 41; Elementary Algebra – 38; Writing Skills (objective) – 40; and Written Essay – 6*

COMPASS: Reading Skills – 81; Algebra – 39; Writing Skills (objective) – 59; and Written Essay – 6*

ACCUPLACER: Reading Comprehension – 78; Elementary Algebra – 63; Sentence Skills – 80; and Written Essay – 6.*

THEA: Reading – 230; Mathematics – 230; Writing 220.

Individual undergraduate programs at UTHSCSA may require higher passing standards. Students should consult with the appropriate program section of this Catalog for additional details about TSI passing standards specific to a program.

Student Enrollment Policy
No student may attend class, laboratory, or clinic until he/she 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 payment deadline, he/she shall be removed from enrollment by the Registrar’s office with no intervention from any administrative personnel.

There shall be no exceptions to this policy.

Adopted by the Dean's Council, November 25, 2003

Registration

Official registration is conducted on dates specified in the academic calendar of each school.

No student may attend class, laboratory, or clinic until he or she is officially registered with tuition and fees (or an installment payment) paid.

If the curriculum of a program requires that a student take courses at both UTHSCSA and another institution concurrently, the student must register and pay tuition and fees at both institutions to be considered an enrolled student.

The University of Texas Health Science Center at San Antonio requires that a student be registered for the semester or summer session in which he or she graduates.

In Absentia

A student who expects to graduate in a semester when he or she will not be enrolled in courses at UTHSCSA must register in absentia for the purpose of having the degree conferred. A fee of $25.00 will be assessed.

Non-degree Student Status

Individuals who wish to enroll in courses presented in programs of the Graduate School of Biomedical Sciences, School of Nursing, or the School of Allied Health Sciences without entering a degree program may apply as a non-degree student under circumstances prescribed by those schools.

Residence Classification

Residence status is determined by statutory provisions of the Texas Education Code and Rules and Regulations of the Texas Higher Education Coordinating Board. Generally, individuals must have resided in the state for 12 months immediately preceding enrollment to be eligible to be classified as residents. Such individuals, if dependent, must have resided with their parent(s) or guardian(s) in the state for 12 months immediately preceding enrollment.

A nonresident classification is presumed to be correct as long as the residence of the individual in the state is primarily for the purpose of having the degree conferred. A nonresident classification will not be changed at a later date, with no intervention from any administrative personnel.

* The minimum passing standard for the written essay portion of all tests is a score of 6. However, an essay with a score of 5 will meet this standard if the student meets the objective writing test standard.
the purpose of attending an educational institution.

Applicants whose residence status is not clearly established may request a “Residence Questionnaire” (available from the Registrar’s Office) so that a university opinion may be rendered in advance of the student’s initial registration. The university may request that a student claiming Texas residency for tuition purposes complete a Residence Questionnaire and provide substantiating documents to affirm Texas residency.

Certain classifications of nonresidents may qualify to pay tuition at the resident rate without regard to length of residence in the state. (See “Financial Information.”)

Oath of Residency

Applicants sign an oath on the Application for Admission that attests to the truth and accuracy of information provided in that application which is used to determine residency. The submission of false information is grounds for rejection of the application, withdrawal of any offer of acceptance, cancellation of enrollment, or appropriate disciplinary action.

Sec. 54.0521, Texas Education Code, provides for an oath of residency. The student is responsible for registering under the proper residence classification and for providing documentation as required by the public institution of higher education.

If there is any question as to right to classification as a resident of Texas it is the student’s obligation, prior to or at the time of enrollment, to raise the question with the administrative officials of the institution in which he or she is enrolling for official determination. Students classified as Texas residents must affirm the correctness of that classification as a part of the admission procedure. If the student’s classification as a resident becomes inappropriate for any reason, it is the responsibility of the student to notify the proper administrative officials at the institution. Failure to notify the institution constitutes a violation of the oath of residency and may result in disciplinary action and/or other penalties.

Transfer of Credit

Credit for semester hours of work completed at another institution toward prerequisites for admission or in lieu of UTHSCSA requirements must be approved by the faculty of the specific program to which the individual is applying. Official transcripts must accompany any request for transfer of credit.

The following procedures shall be followed by The University of Texas Health Science Center at San Antonio, in accordance with the policies of the Texas Higher Education Coordinating Board, in the resolution of credit transfer disputes involving lower-division courses:

1. 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.

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

3. 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 institution whose credit is denied for transfer shall notify the Commissioner of the denial.

The Commissioner of Higher Education or the commissioner’s designee shall make the final determination about the dispute concerning the transfer of course credit and give written notice of the determination to the involved student and institutions.

Adding/Dropping Courses

The process of adding or dropping courses, if such procedures are compatible with the structure of the educational program, is accomplished through the individuals (program directors, instructors, associate deans) designated by the school. Tuition and fees are adjusted, if appropriate, when the Registrar’s Office receives documentation from the school.

Attendance

Attendance policies are the prerogative of the faculty of each school.

Withdrawal

Withdrawal refers to the process whereby students remove themselves from all classes in which they are enrolled. To officially withdraw from the Health Science Center, a student follows procedures established by the school in which he or she is enrolled. Completion of a “Clearance Form” and an exit interview for students who are receiving financial aid are part of this process.

Leave of Absence

Generally, a leave of absence for a maximum of one year may be granted to a student in good standing by the school in which he or she is enrolled. In some cases, the school may extend the leave, depending upon extenuating circumstances. It is the responsibility of the student to initiate a request for a leave of absence, following the procedure established by the school. Policies for each school are contained in this Catalog.

Excess Hours

A student who entered UTHSCSA beginning in the fall 2006 semester or later and has reached or exceeded the maximum number of credit hours, will be required to pay non-resident tuition, starting Fall 2007, regardless of residency status.

Undergraduate Students: State Law allows the University to charge a Texas resident student (or non-resident undergraduate student who is permitted to pay resident tuition), who has reached the maximum number of credit hours toward a degree program, nonresident tuition. In addition, a higher tuition rate may be charged if a student enrolls again in a course he or she has completed. Information about these laws may be obtained on the Web at [http://www.collegefortexans.com/getting/additionalcharges.cfm](http://www.collegefortexans.com/getting/additionalcharges.cfm).

Graduate Students: A student who has earned more than ninety-nine semester hours of credit at the doctoral level
Grades, Promotion, and Advancement

Grading standards, symbols, grade point scales, GPA determinations, 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.

Probation
Students are subject to being placed on either academic or administrative probation according to the policies of the school in which they are enrolled and/or the Procedures and Regulations Governing Student Conduct and Discipline of the Health Science Center.

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 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 of absence, and failure to pay tuition and fees may lead to a student’s termination. (See “General Regulations and Requirements.”)

Readmission
In general, 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. Individuals who have completed the first year of a program may be readmitted, at the discretion of the faculty, on a space-available basis.

Graduation
The certificate or degree is awarded by the Board of Regents following the student’s completion of a prescribed course of study, the recommendation of the faculty, and the certification by the dean of the school and the president of The University of Texas Health Science Center at San Antonio that the candidate has fulfilled all requirements for the certificate or degree.

Degrees are conferred and certificates awarded only on official dates publicly announced.

It is the responsibility of the candidate to apply for graduation the semester prior to anticipated graduation, and to file an Application for Degree/Certificate form (available in the Registrar’s Office). Apply by Dec. 1 for spring, March 1 for summer, and July 1 for fall.

As in any educational setting, the student has the primary responsibility for acquiring knowledge. In offering courses of study, the Health Science Center in no way guarantees that any student accepted for enrollment will achieve any given level of academic or professional accomplishment.

General and specific requirements for degrees may be altered in successive Catalogs. A student is bound by the requirements of the Catalog in force at the time of her/his admission; however, a student must complete all requirements within six years or be subject to degree requirements of subsequent Catalogs. The student who is required to or chooses to fulfill the requirements of a subsequent Catalog must have her/his amended degree plan approved by the appropriate dean.

UTHSCSA Handbook of Operating Procedures

Information on the following topics may be found in the University’s Handbook of Operating Procedures (HOP):

- Communication with outside sources (media, officials, etc.)
- Use of copyrighted materials
- Information Security
- Political activities
- Request for Americans with Disabilities accommodations
- Employment of non-citizens
- International students with F visas
- Office of International Services
- Misconduct/Fraud in research
- Environmental policy—health and safety
- Environmental protection
- Chemical & biological safety
- Physical safety
- Violence in the workplace
- Select biological agents policy
- Confidentiality of patient health information
- Intellectual property policy
- Student information protection by Code of Ethics and Standards of Conduct
- Telephone number for bad weather information: 567-SNOW
- Disaster communication plan
- E-mail policy
- No Smoking policy on campus
Financial Information

Tuition and Fees
Tuition and fees are due and payable prior to the published first class day for the term. Arrangements can be made to pay tuition and REQUIRED fees in as many as four installments, with the first installment due at Registration.*

Penalties for failing to make installments on time include (a) being barred from class until payment is made, (b) 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, (c) bar against readmission and withholding of grades, degree, and official transcript, and/or (d) other remedies authorized by law.

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.

Registration is not complete until tuition and fees are paid. Students should be prepared to make these payments or arrange for installments prior to the first class day of the enrollment period. Both tuition and fees are subject to change by legislative or regental action and become effective when enacted.

Students in the Professional Schools (Medical School and Dental School) pay tuition and fees based upon the curriculum for the academic year. Both Undergraduate and Graduate students (Graduate School of Biomedical Sciences, School of Allied Health Sciences, and School of Nursing) pay tuition and fees based upon the hours for which they register each semester.

Disbursements
Financial Aid disbursements will be posted to a student’s tuition/fee account on or about 10 days prior to the first class day. Please contact the Bursar’s office at (210) 567-2556 for information concerning residual balances.

Residence Determination
The Registrar’s Office is responsible for determining residence status of students for purposes of tuition. The office is guided by the Texas Education Code, Section 54.052, et seq, and the Rules and Regulations for Determining Residence Status (Chapter 21) of the Texas Higher Education Coordinating Board, and university regulations. Under the state statutes and regulations a student or prospective student is classified as a resident of Texas, nonresident or a foreign student.

A resident is an individual who is either a U.S. citizen, national or Permanent Resident Alien, an alien who has been permitted by Congress to adopt the U.S. as her or his domicile while in the United States and who has otherwise met the state requirements for establishing residency for tuition purposes; or an individual who has lived in the state for a specified period of time; resided with a parent or guardian while attending high school in this state; graduated from a high school in this state, resided in this state for at least 3 years as of that graduation; and provided an affidavit regarding establishment of permanent residency. A nonresident is a citizen, national or permanent resident of the U.S. or an alien who has been permitted by Congress to adopt the U.S. as her or his domicile while in this country and who has not met the State’s requirement for establishing residency for tuition purposes. While these state requirements for establishing residency are complex and should be referred to in each particular circumstance, they generally require a minimum of 12 months residence in Texas prior to enrollment. A foreign student is an alien who is not a permanent resident of the U.S. or has not been permitted by Congress to adopt the U.S. as her or his domicile. An individual classified as a nonresident or foreign student may qualify, under certain exceptions specified in these rules, for resident tuition rates and other charges while continuing to be classified as a nonresident or a foreign student. For information on tuition exceptions and waivers see “Tuition and Fee Exemption” later in this section.

A Residence Questionnaire must be completed and turned in to the Registrar’s Office prior to the census date of the term in order for a reclassification to be effective for that term.

Tuition 2005–2006*
* Tuition includes State-relegated Statutory tuition, and Board of Regents-approved Designated and Differential tuition established by the institution by school and program

<table>
<thead>
<tr>
<th>Department</th>
<th>Residents per academic year</th>
<th>Nonresidents per academic year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dental School</td>
<td>$9,125</td>
<td>$19,925</td>
</tr>
<tr>
<td>Medical School</td>
<td>$9,950</td>
<td>$23,725</td>
</tr>
<tr>
<td>Graduate School of Biomedical Sciences</td>
<td>$96</td>
<td>$372</td>
</tr>
<tr>
<td>School of Allied Health Sciences</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Department</td>
<td>Res. per credit hour</td>
<td>Nonres. per credit hour</td>
</tr>
<tr>
<td>Clinical Laboratory Sciences</td>
<td>$106</td>
<td>$382</td>
</tr>
<tr>
<td>Deaf Education and Hearing Science</td>
<td>$144</td>
<td>$420</td>
</tr>
<tr>
<td>Dental Hygiene</td>
<td>$116</td>
<td>$392</td>
</tr>
<tr>
<td>Dental Laboratory Technology</td>
<td>$121</td>
<td>$397</td>
</tr>
<tr>
<td>Emergency Health Sciences</td>
<td>$96</td>
<td>$372</td>
</tr>
<tr>
<td>Occupational Therapy</td>
<td>$121</td>
<td>$397</td>
</tr>
<tr>
<td>Physical Therapy</td>
<td>$141</td>
<td>$417</td>
</tr>
<tr>
<td>Physician Assistant Studies</td>
<td>$144</td>
<td>$420</td>
</tr>
<tr>
<td>Respiratory Care</td>
<td>$116</td>
<td>$392</td>
</tr>
</tbody>
</table>

HELP Loan recipients must use their disbursement check to pay the balance owed on total tuition, fees, or any other University debt.
School of Nursing
Residents $126 per credit hour
Nonresidents $402 per credit hour

Tuition for Joint Programs
Students in Clinical Laboratory Sciences joint program with The University of Texas at San Antonio may pay tuition and fees at both UTHSCSA and UTSA during some portions of the program.

Installment Payments
Payment of tuition and fees in installments may be an option for students. The following alternatives are available:

Medical and Dental Students*

Option 1
25% at Registration
25% 8 weeks later
25% 1 week after the midpoint of the academic year
25% 30 days after the 3rd installment

Option 2
50% at Registration
50% 1 week after the midpoint of the academic year

Graduate and Undergraduate Students
(1) one-half payment of tuition and fees in advance of the beginning of the semester (registration) and
(2) one-fourth payments prior to the sixth and eleventh class weeks

All Students
A fee of $15 will be assessed for handling of installment payments of tuition and fees, and a $10 fee will be assessed for each late payment.

Late payments will result, at the University's option, in one or more of the following actions:
(a) the student’s barring from class until payment is made;
(b) withholding of credit if payment is not made by the end of the semester, with the University adjusting the student's failure to have properly enrolled for that semester;
(c) bar against readmission and withholding of grades, degree, and official transcript; or
(d) other remedies authorized by law.

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.

A non-resident student who believes he/she is qualified for one of the tuition waivers must provide documentation to the Registrar no later than the census date for the term in order for the application of the waiver to be considered for that term.

Required Fees
The following required fees, with the exception of the Identification Fee, Professional Liability Insurance premiums, Human Materials Fee, and the Late Registration Fee, are refundable according to the schedule of refunds outlined later in this section.

The Student Services Fee covers the cost of student services. This fee is required of all students. Medical and Dental students are assessed $220 per academic year. Allied Health, Graduate, and Nursing students are assessed $7.50 per semester credit hour, not to exceed $90 per semester or $40 per summer session—$220 maximum per academic year.

A Library Fee of $100 per semester will be assessed students in the Graduate School of Biomedical Sciences, School of Allied Health Sciences, and School of Nursing. Dental and Medical students will be assessed $200 per year.

An Identification Fee of $10, payable upon registration, is for a student identification card. This fee is not refundable and is required of all students. A fee of $10 will be charged for a replacement card.

A Graduation Fee of $60 is paid at the time of registration for the semester or summer session in which the student plans to graduate. The fee covers the cost of the diploma and its related expenses.

A Microscope Fee is prorated on a monthly basis ($4 per month) not to exceed $48 per year and is assessed students in courses requiring a microscope. Maintenance is provided by the University. All MS1, MS2, and DS1 students pay $48 per year.

Laboratory Fees are assessed to defray the cost of materials and supplies provided in the teaching programs. These fees are based primarily upon the amount of laboratory use each year of a program. The maximum fee is $30 per laboratory course per semester. This fee does not include breakage.

A Human Materials Fee of $300 is assessed for any student enrolling in a Gross Anatomy course. This fee is nonrefundable.

An Audit Fee of $5 per course is charged (a) HSC students who are not registered for credit in other courses in that

*Recipients of HEAL loans may not be able to use this option.
semester or session, and (b) HSC employees. Other individuals are charged $10 per course to audit. Students who are enrolled less than full-time in nursing courses may audit additional nursing courses for a fee of $5 per course. Individuals who are not enrolled in nursing courses may audit nursing courses for a fee of $25 per course. Students must have permission of the instructor to audit a course.

A Late Registration Fee of $100 will be assessed any student paying tuition and fees on the 1st class day through the census day of the term. The fee is not refundable.

A Microfilming Fee of $55, covering the cost of microfilming the Ph.D. dissertation and publication of the abstract in Dissertation Abstracts International, is paid when the dissertation is completed. Master’s theses may also be microfilmed for a $45 fee, with the same provisions. The student will be responsible for all costs related to mailing their dissertations/theses and accompanying paperwork to Bell and Howell to be microfilmed. Consult with the Graduate Dean’s Office for detailed information.

The student who expects to defend the dissertation or thesis in this interval should preregister for one credit hour for the next semester. Following the successful defense of the dissertation, the student may submit an add/drop card and register in absentia for the coming semester. Registration in absentia should be designated as zero credit hours on the course card. The fee for in absentia registration is $25.00.

A Clinical Usage Fee of $350 per year is assessed second-year Dental School students; $500 for DS3s; and $500 for DS4s.

An annual Instrument Leasing Fee is assessed Dental School students according to the following schedule:

<table>
<thead>
<tr>
<th>Level</th>
<th>Fee</th>
</tr>
</thead>
<tbody>
<tr>
<td>DS1</td>
<td>$2,000</td>
</tr>
<tr>
<td>DS2</td>
<td>$2,000</td>
</tr>
<tr>
<td>DS3</td>
<td>$1,800</td>
</tr>
<tr>
<td>DS4</td>
<td>$1,800</td>
</tr>
</tbody>
</table>

An Implantology Fee of $500 per year is assessed second-year Dental School students.

A Medical Service Fee is assessed all students. The semester rate is $55, summer rate $25, and annual rate $135.

All DS1 students purchase a laptop computer bundle from the University Computer Store (cost, in 2004, was approximately $2,000–$2,500).

A Technology Support Fee of $300 is assessed all dental students.

A Criminal Background Check Fee of $5.00 per year is assessed dental students who participate in clinical rotations to provide patient care at off-campus locations.

To defray the cost of consumable laboratory supplies, equipment, and other expenses associated with the Technical Clinical Skills Laboratory, a Technical Clinical Skills Fee of $400 per semester is assessed all medical students. Undergraduate nursing student fees are $60 for Semesters 1, 2, and 4, and $30 for Semester 3. Graduate nursing student fees are $60 for Semester 1 and $90 for all other semesters.

Allied Health students are assessed a Student Assistance Fee of $25 per semester for full-time students and $15 per semester for part-time students.

A Practicum Fee of $5.00 per credit hour for each practicum course is assessed allied health students.

A Technology Fee of approximately $1,900 is assessed all dental students.

An Instructional Technology Fee of $6.00 per semester credit hour is assessed all incoming Allied Health students.

A Clinical Laboratory Sciences Fee of $30 per semester credit hour, or a maximum of $350 per semester, is charged to students enrolled in Clinical Laboratory Sciences courses.

Medical students are assessed a Computer-Use Fee of $50 per year. All Nursing students are assessed a Computer-Use Fee of $5.00 per semester credit hour up to $50 per semester.

Each semester Dental Hygiene Certificate students are charged an Equipment Rental Fee of $320. For the first two years of the program, a Physician Assistant Studies Equipment Leasing Fee of $300 per fall and spring semesters will be charged Physician Assistant Studies students.

The following Leasing Fees will be charged to Dental Laboratory Technology students:

- Dental Lab Technology Leasing Fee Level 1: $1,650
- Dental Lab Technology Leasing Fee Level 2: $1,000
- Dental Lab Technology Leasing Fee Level 3: $650
- Dental Lab Technology Leasing Fee Level 4: $650

Student Assistance Fee

A Student Assistance Fee of $25 per semester for full-time students and $15 per semester for part-time students will be charged all Allied Health Sciences students.

Other Expenses

A Parking Fee varying from $48 to $480 is assessed students who park vehicles on campus. The amount of the fee varies depending on the location of the space chosen by the student.

Professional Liability Insurance. Students enrolled in a health component institution of The University of Texas System in a program that involves direct patient care activities are required to purchase professional liability insurance through the University as a prerequisite to enrollment. The policy extends coverage to the insured only in her or his student role.

Current premiums for students in the various programs are:

- Medical students: $25 per year
- Dental students: $30 per year
Nursing students..............................$14.50 per year
All Nurse Practitioner students..........$61 per year 1
Allied Health students 2..........................$14.50 per year
Physician Assistant students...............$61.00 per year
All EMT except bachelor's students ..........$61.00 per year

All 3 students are required to have health insurance. Student Health Insurance is available through a group plan designed for students at UTHSCSA. A student may enroll her or his spouse and/or children at an additional cost. The premiums vary accordingly. The current annual premium for a single student is $933, provided by Mega Life. If students do not wish to purchase the Mega Life policy, they must provide proof of major medical health insurance by the published payment due date for the term in which they are enrolled. Once paid, the Mega Life is nonrefundable.

Challenge Examination Fees are $25 for each lecture examination and $50 for each laboratory course exam.

Computer Adaptive Test (Nursing) fee is $38.

Nonrefundable Application Fees ranging from $10 to $40 are required by each school at the time the application is submitted to the Office of the Registrar. Fees vary and are listed for applicants in UTHSCSA Applicant Viewbooks and printed on the application forms. Medical and dental application fees (payable to Texas Medical and Dental Schools Application Service) are $55 for residents and $90 for nonresidents.

Visiting Medical Students $25/course
AADSAS Supplemental Application (Dental) $40

Program-specific expenses, including costs of textbooks, equipment, uniforms, manuals, instruments, specialty and licensing examination fees, and costs associated with clinical experiences and fieldwork are provided in individual school sections of this Catalog.

Living expenses (housing, meals, transportation, etc.) vary according to the individual choices of the student.

A $165.50 per semester credit hour Out-of-State Instructional Fee is charged to all non-resident students who live outside of Texas while they are taking a distance education course. Regular tuition will not be charged for these courses.

Tuition and fees are subject to change by legislative or regental action and become effective on the date enacted. The Texas Legislature does not set the specific amount for any particular fee. The student fees assessed above are authorized by state statute; however, the specific fee amounts and the determination to increase fees are made by the university administration and The University of Texas System Board of Regents.

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1 $41 spring and summer; $21 summer only
2 Dental Laboratory Technology students are not required to purchase liability insurance.
3 Students enrolled in a distance education course, who do not attend courses on any U. T. System campus, and who do not participate in clinical activities are exempt from the requirement to have health insurance.

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Tuition and Fee Exemption

Children of Professional Nursing Program

Faculty and Staff (Texas Education Code Sec. 54.221)

The purpose of this program is to provide exemptions from the payment of tuition to eligible students to encourage their parents to continue employment as professional nurse faculty or staff members in the State of Texas.

Eligible Students. To receive an award through the Exemption Program for Children of Professional Nursing Faculty and Staff, a student shall:

- be a resident of Texas
- not have been granted a baccalaureate degree
- be enrolled at an institution that offers an undergraduate or graduate program of professional nursing
- be the child of an individual who, at the beginning of the semester or other academic term for which an exemption is sought, holds a master's or doctoral degree in nursing, and is employed full-time by a undergraduate or graduate professional nursing program offered by the institution that the child is attending and is employed as a member of the faculty or staff with duties that include teaching, performing research, serving as an administrator, or performing other professional services other than serving as a teaching assistant; or holds a baccalaureate degree in nursing and is employed by a professional nursing program offered by the institution as a full-time teaching assistant; or during all or part of the semester or other academic term for which an exemption is sought holds a master's or doctoral degree in nursing, and has contracted with an undergraduate or graduate professional nursing program in this state to serve as a full-time member of its faculty or staff with duties that include teaching, performing research, serving as an administrator, or performing other professional services other than serving as a teaching assistant; or holds a baccalaureate degree in nursing and has contracted with a professional nursing program offered by the institution to serve as a full-time teaching assistant.
- be enrolled at the same institution of higher education at which the student's parent is currently employed or with which the parent has contracted, either as a professional nursing faculty or staff member.

Discontinuation of Eligibility. A person's eligibility ends when the person has previously received exemptions for 10 semesters or summer sessions at any institution or institutions or higher education, or received a baccalaureate degree. For the purpose of this provision, a summer session that is less than nine weeks in duration is considered one-half of a summer session.

Proration of Exemption. If the parent is employed on less than a full-time basis, the value of the exemption is to be prorated in accordance with the parent's employment load. Under no circumstances, however, is the exemption to be for an amount less than 25 percent of the student's tuition.
Application Process. To apply for an exemption through this subchapter, a student shall submit to the institution a completed Professional Nursing Faculty and Staff Exemption Application.

Preceptors for Professional Nursing Education Programs
(Texas Education Code Sec. 54.222)
The purpose of this program is to provide partial exemptions from the payment of tuition to eligible persons employed as clinical preceptors and their children in order to encourage the preceptors to continue their employment and induce others to seek such employment in the State of Texas.

Tuition Exemption. Each institution of higher education shall exempt all eligible preceptors and eligible students from the payment of up to $500 of tuition per term or semester.

Eligible Preceptors. To receive an exemption under this program, a preceptor must be a resident of Texas, be a registered nurse, and be serving under a written preceptor agreement with an undergraduate professional nursing program as a clinical preceptor for students enrolled in the program for the semester or other academic term for which the exemption is sought.

Eligible Students. To receive an exemption under this program, a student must be a resident of Texas and be the child of a clinical preceptor who is serving under a written preceptor agreement with an undergraduate professional nursing program as a clinical preceptor for students enrolled in the program for the semester or other academic term for which the exemption is sought.

Discontinuation of Eligibility. An individual’s eligibility for the program ends when the person has previously received exemptions for 10 semesters or summer sessions at any institution or institutions or higher education, or received a baccalaureate degree. For this program, a summer session that is less than nine weeks in duration is considered one-half of a summer session.

Value of the Exemption. The value of an exemption granted under this program is equal to $500 or the student’s tuition, whichever is less.

Application Process. To apply for an exemption under this program, a student shall complete the Clinical Preceptor Exemption Application.

Foster care or other residential care students
The Texas Education Code, Section 54.211, provides an exemption program for tuition and some fees for students who were in foster care or other residential care under the conservatorship of the Department of Protective and Regulatory Services or after the day preceding an eligible student’s 18th birthday. To receive the exemption, an otherwise eligible student must enroll in an institution of higher education not later than the third anniversary of the date the student was discharged from the foster or other residential care. Eligible students should provide documentation from the Department of Protective and Regulatory Services, which certifies their eligibility for tuition and fee exemption, to the Director of Student Financial Aid.

Blind or deaf students
The Texas Education Code, Section 54.205, provides that blind or deaf students shall be exempt from the payment of tuition and all fees at public institutions of higher education in Texas. Such persons are not exempt from charges for books or supplies for which other students normally pay. Eligible students must:

1. be a resident of Texas as defined by Coordinating Board rules;
2. be a high school graduate or its equivalent (GED);
3. present a certificate, indicating that he/she is blind or deaf person, issued by the Texas Rehabilitation Commission, the Texas Commission for the Blind, or the Texas Commission for the Deaf and Hearing Impaired, as appropriate. The certificate is required for initial enrollment only and remains valid for subsequent enrollments at the institution in the student’s designated course of study;
4. present a letter of recommendation from the principal of the high school attended or from a public official or some other responsible person who knows the blind or deaf person;
5. present a statement written by the blind or deaf person who sets out that person’s purpose in pursuing higher education and which indicates the certificate or degree program to be pursued or the professional enhancement anticipated from the course of study for that certificate or degree program;
6. provide proof that he/she meets the institution’s entrance requirements. An institution may establish special entrance requirements to fit the circumstances of deaf and/or blind persons.

AFDC students
Section 54.212 of the Texas Education Code states that a student is exempt from the payment of tuition and fees authorized by this chapter for the first academic year in which the student enrolls at an institution of higher education if the student:

1. graduated from a public high school in this state;
2. successfully completed the attendance requirements;
3. during the student’s last year of public high school in this state, was a dependent child receiving financial assistance under Chapter 31, Human Resources Code, for not less than six months;
4. is younger than 22 years of age on the date of enrollment;
5. enrolls at the institution as an undergraduate student not later than the first anniversary of the date of graduation from a public high school in this state;
(6) has met the entrance examination requirements of the institution before the date of enrollment; and
(7) is classified as a resident under Subchapter B.

Veterans

Section 54.203 (Hazelwood Act) of the Texas Education Code provides exemption from the payment of tuition and most fees to eligible Texas veterans or the children of certain deceased veterans. Benefits under the act are limited to otherwise eligible students whose “right to benefits under legislation is extinguished at the time of his (her) registration.” Receipt of a Federal Pell Grant or a Supplemental Educational Opportunity Grant, as well as Veteran’s Administration benefits is therefore disqualifying (maximum 150 credit hours).

Texas ex-servicemen (Section 54.203)

Texas ex-servicemen may, as directed by the State Legislature, be exempted from certain required fees but not deposits when meeting these criteria (maximum 150 credit hours):
(1) has resided in Texas for a period of not less than 6 months before the date of registration;
(2) was a “bona fide” legal resident of the state at the time of entering service;
(3) served in the armed forces or in certain auxiliary services in World War II, the Korean conflict, or the Cold War;
(4) was honorably discharged therefrom (except those discharged because of being over the age of thirty-eight or because of personal request);
(5) is not eligible for education benefits provided for veterans by the United States Government.

Children of members of the armed forces
(Section 54.203)

Exemption from payment of certain fees also extends to children of members of the armed forces killed in action or who died while in the service during World War II, the Korean conflict, or the Cold War, and to orphans of members of the Texas National Guard and the Texas Air National Guard killed since January 1, 1946, while on active duty. Application for this exemption should be made to the Registrar (maximum 150 credit hours).

Children of certain disabled public employees

Full-paid or volunteer firefighter; or a full-paid municipal, county, or state police officer; or a custodial employee of the Texas Department of Corrections; or a game warden who, in the line of duty, have suffered injury resulting in death or disability, are exempt from payment of tuition and laboratory fees (Section 54.204). For specific information relative to this provision, contact the Commissioner of Higher Education, Sam Houston State Office Building, Austin, Texas 78701 (120 hours undergraduate maximum).

Surviving spouse and minor children of certain police, security, or emergency personnel killed in the line of duty
(Texas Government Code 615.0225)

Exemption from payment of certain fees extends to the surviving spouse or children of certain public peace officers, probation officers, parole officers, jailers, police reservists, firefighters, and emergency medical personnel whose death occurred in the line of duty as a result of risk inherent in the duty (not to exceed bachelor’s degree or 200 hours maximum and enrolled full time).

Accredited School Scholarship* **
(Texas Education Code, Section 54.203)

The governing board of each institution of higher education may issue scholarships each year to the highest ranking graduate of each accredited high school of this state, exempting the graduates from the payment of tuition during both semesters of the first regular session immediately following their graduation. This exemption may be granted for any one of the first four regular sessions following the individual’s graduation from high school when in the opinion of the institution’s president the circumstances of an individual case, including military service, merit the action.

Good Neighbor Scholarship* **

A select number of native-born students from the other nations of the American hemisphere; native-born students from a Latin American country, and students from each nation, as authorized in the Texas Education Code Section 54.207, shall be exempt from tuition as provided in this section.

Every applicant shall furnish satisfactory evidence, certified by the proper authority of his native country, that he/she is a bona fide native-born citizen and resident of the country which certifies her/his application and that he/she is scholastically qualified for admission.

Academic Common Market

(a) The Texas Higher Education Coordinating Board is hereby authorized to participate on behalf of the State of Texas in the interstate agreement known as the “Academic Common Market,” which provides reciprocal higher educational opportunities to the citizens of states declared as parties to the Southern Regional Education Compact.

(b) The governing board of any public institution of higher education may propose programs and curricula for approval by the Texas Higher Education Coordinating Board which are to be offered to citizens of participating states on a resident tuition or registration fee basis.

(c) Notwithstanding any other provisions of this code, the

* Must have Regental approval
** Must have Texas Higher Education Coordinating Board approval
governing board of any public institution of higher education shall charge nonresident students from participating states enrolled in programs designated pursuant to this section the same amount charged resident students in such programs.

Educational Aides
The governing board of an institution of higher education shall exempt an eligible educational aide from the payment of tuition and fees, other than class or laboratory fees.

To be eligible for an exemption under this section, a person must:
(1) be a resident of this state;
(2) be certified as an educational aide by the State Board for Educator Certification;
(3) have at least two school years of experience as a certified educational aide working directly with students in a school district;
(4) be employed as a certified educational aide working directly with students in a school district during the entire term or semester for which the person receives the exemption;
(5) establish financial need as determined by the Texas Higher Education Coordinating Board rule;
(6) be enrolled in classes necessary for certification as a teacher at the institution of higher education granting the exemption;
(7) maintain an acceptable grade point average as determined by Coordinating Board rule; and
(8) comply with any other requirements adopted by the Coordinating Board under this section.

The Coordinating Board must certify a person’s eligibility to receive an exemption under this section. As soon as practicable after receiving an application for certification, the Coordinating Board shall make the determination of eligibility and give notice of its determination to the applicant, the institution of higher education at which the applicant is enrolled, and the school district employing the person as an educational aide.

The Coordinating Board shall adopt rules consistent with this section as necessary to implement this section. The Coordinating Board shall distribute a copy of the rules adopted under this section to each school district and institution of higher education in this state.

Title IV Refund
This refund policy will apply to most financial aid recipients who withdraw.

As an institution participating in programs under Title IV of the Higher Education Act of 1965, as amended (“Act”), UTHSCSA is required to refund unearned tuition, fees, room and board, and other charges to students who have received a grant, loan, or work assistance under Title IV of the Act or whose parents have received a loan on their behalf under 20 U.S.C., Section 10872. 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 54.006, Texas Education Code, or a pro rata refund calculated pursuant to Section 484B 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 Withdrawal or Leave of Absence
Students withdrawing from UTHSCSA 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 UTHSCSA 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

Any questions regarding the return of Title IV programs should be directed to the Assistant Director of Student Financial Aid. Examples are available on request.

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.

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.

<table>
<thead>
<tr>
<th>Refund Percentage</th>
<th>Time Period</th>
</tr>
</thead>
<tbody>
<tr>
<td>100 percent</td>
<td>Prior to the first day of classes</td>
</tr>
<tr>
<td>80 percent</td>
<td>During the first five class days</td>
</tr>
<tr>
<td>70 percent</td>
<td>During the second five class days</td>
</tr>
<tr>
<td>50 percent</td>
<td>During the third five class days</td>
</tr>
<tr>
<td>25 percent</td>
<td>During the fourth five class days</td>
</tr>
</tbody>
</table>
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:

<table>
<thead>
<tr>
<th>Percentage</th>
<th>Time Period</th>
</tr>
</thead>
<tbody>
<tr>
<td>100 percent</td>
<td>prior to the first class day</td>
</tr>
<tr>
<td>80 percent</td>
<td>during the first, second, or third class day</td>
</tr>
<tr>
<td>50 percent</td>
<td>during the fourth, fifth, or sixth class day</td>
</tr>
</tbody>
</table>

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 following 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.

**Financial Assistance**

All students applying for admission to UTHSCSA 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) on an annual basis. The FAFSA can be obtained from any college or university in the United States, most high schools and libraries, and on the Web at [http://www.fafsa.ed.gov](http://www.fafsa.ed.gov).

UTHSCSA may require additional information to complete your application. Please take seriously all correspondence requests for information from the office, as all documents are required by federal regulation to process your application. Only send documents requested by the financial aid office. Do NOT send any other documents. Once all documents are received, your application is considered complete and ready for awarding. Awards for federal 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) if the student indicates on the FAFSA that they plan to enroll all terms.

UTHSCSA has a “priority” deadline of April 1 for applications for financial aid for the subsequent fall semester. Students who are entering a program in what UTHSCSA considers a summer semester (applies only to nursing, allied health sciences, and advanced dental programs) must apply using the current FAFSA 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. Student loans typically take two to three weeks to process by the state guarantee agency and the chosen lender.

Disbursement of financial aid occurs for continuing students no earlier than 10 days prior to the first class day. New students can receive their disbursement at registration. Disbursements for Spring and Summer terms are also available no sooner than 10 days prior to than the first class day.

**Selective Service**

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.
Policies and Procedures

Some of the following policies and procedures may be referenced in the various schools’ sections in this Catalog.

UTHSCSA Nondiscrimination Policy and Complaint Procedure

I. STATEMENT OF POLICY
It is the policy of The University of Texas Health Science Center at San Antonio to provide an educational and working environment that provides equal opportunity to all members of the University community. In accordance with federal and state law, the University prohibits unlawful discrimination on the basis of race, color, religion, sex, national origin, age, disability, citizenship, and veteran status. Discrimination on the basis of sexual orientation is also prohibited pursuant to University policy.

II. SCOPE OF POLICY
Student Policy in Student Publications
This policy applies to all University administrators, faculty, staff, students/residents, fellows visitors and applicants for employment or admission. This policy is the principal prohibition of all forms of discrimination on campus, except as follows:

- The University’s controlling policy and procedures relating to sexual harassment and sexual misconduct can be found in the UTHSCSA Handbook of Operating Procedures, Policy 4.2.2.
- Complaints concerning wages, hours or work, working conditions, performance evaluations, merit raises, job assignments, reprimands, and the interpretation or application of a rule, regulation or policy are governed by UTHSCSA Handbook of Operating Procedures, Policy 4.9.5.

III. DEFINITIONS
A. Discrimination, including harassment, is defined as conduct directed at a specific individual or a group of identifiable individuals that subjects the individual or group to treatment that adversely affects their employment or education on account of race, color, religion, national origin, age, disability, citizenship, veteran status or sexual orientation.

B. Harassment, as a form of discrimination, is defined as verbal or physical conduct that is directed at an individual or group because of race, color, religion, sex, national origin, age, disability, citizenship, veteran status or sexual orientation when such conduct is sufficiently severe, pervasive or persistent so as to have the purpose or effect of interfering with an individual’s or group’s academic or work performance; or of creating a hostile academic or work environment. Constitutionally protected expression cannot be considered harassment under the policy.

IV. RESOLUTION OPTIONS
A person who believes that he or she has been subjected to discrimination or harassment in violation of this policy and seeks to take action may use either the informal resolution process or the formal complaint process, or both. The informal resolution and formal complaint resolution process described in this policy are not mutually exclusive and neither is required as a pre-condition for choosing the other; however, they cannot both be used at the same time.

V. INFORMAL RESOLUTION PROCESS
This process may be used as a prelude to filing a formal complaint or as an alternative. It is not necessary that this option be used. Anyone who believes that he or she has been subject to discrimination may immediately file a formal complaint as described in Section VI of this policy. Informal resolution may be an appropriate choice when the conduct involved is not of a serious or repetitive nature and disciplinary action is not required to remedy the situation. No formal investigation is involved in the informal resolution process.

A. Reporting. Students, residents or fellows wishing to use the informal resolution process should contact the appropriate Associate/Assistant Dean for Student Affairs or the Associate Dean for Graduate Medical Education in the Medical School. All other individuals wishing to utilize the informal resolution process should contact the EEO/AA Office.

B. Informal Assistance. The individual is provided assistance in attempting to resolve possible discrimination if the individual does not wish to file a formal complaint. Such assistance includes strategies for the individual to effectively inform the offending party that his or her behavior is offensive and should cease, action by an appropriate university official to stop the offensive conduct, modification of the situation in which the offensive conduct occurred, or mediation between the parties. However, the University may take more formal action to ensure an environment free of discrimination.

C. Timeframe. Informal resolutions will be completed within a reasonable amount of time from receipt of a request for informal resolution.

D. Confidentiality and Documentation. The University will document informal resolutions. The Office of Equal Employment Opportunity/Affirmative Action will retain the official documentation. The Associate/Assistant Deans will forward documentation of informal resolutions to the Office of EEO/AA at the conclusion of the process for which they are responsible to conduct. The University will endeavor to maintain confidentiality to the extent permitted by law. The University will attempt to find the right balance between the individual’s desire for privacy and confidentiality with the responsibility
VI. COMPLAINT PROCEDURES

(This complaint procedure also constitutes the grievance procedures for complaints alleging unlawful sex discrimination required under Title IX of the Education Amendments of 1972. As used herein, "complaint" is synonymous with "grievance.")

A. Reporting

1. The University of Texas Health Science Center at San Antonio encourages any person who believes that he or she has been subjected to discrimination to immediately report the incident to his or her appropriate supervisor, to the appropriate supervisor of the of the accused faculty member or employee, to the EEO/AA Office or when a student, resident or fellow is the accused individual, to the appropriate Associate/Assistant Dean for Student Affairs or the Associate Dean for Graduate Medical Education in the Medical School. The complainant will be advised of the procedures for filing a formal complaint of discrimination. When a supervisor or Associate/Assistant Dean for Student Affairs or the Associate Dean for Graduate Medical Education in the Medical School receives a complaint, he or she will immediately notify the EEO/AA Office.

2. Complaints should be filed as soon as possible after the conduct giving rise to the complaint, but no later than 30 [calendar/working] days after the event occurred. In the case of a currently enrolled student, if the last day for filing a complaint falls prior to the end of the academic semester in which the alleged violation occurred, then the complaint may be filed within thirty (30) calendar days after the end of that semester.

3. In order to initiate the investigation process, the complainant should submit a signed, written statement setting out the details of the conduct that is the subject of the complaint, including the complainant's name, signature, and contact information; the name of the person directly responsible for the alleged violation; a detailed description of the conduct or event that is the basis of the alleged violation; the date(s) and location(s) of the occurrence(s); the names of any witnesses to the occurrence(s); the resolution sought; and any documents or information that is relevant to the complaint. While an investigation may begin on the basis of a oral complaint, the complainant is strongly encouraged to file a written complaint. When a supervisor or the Associate/Assistant Dean for Student Affairs or the Associate Dean for Graduate Medical Education in the Medical School receives a complaint with a written statement he/she shall immediately notify the EEO/AA Office.

B. Complaint Investigation

1. The Associate/Assistant Dean for Student Affairs or the Associate Dean for Graduate Medical Education in the Medical School and/or the Executive Director of the EEO/AA Office as appropriate, is responsible for investigating formal complaints. If the complaint is not in writing, the investigator should prepare a statement of what he or she understands the complaint to be and seek to obtain verification of the complaint from the complainant.

2. Within ten working days of receipt of a complaint the Associate/Assistant Dean for Student Affairs or the Associate Dean for Graduate Medical Education in the Medical School and/or the Executive Director of the EEO/AA Office as appropriate will authorize an investigation of the complaint.

3. As part of the investigation process, the accused individual shall be provided with a copy of the allegations and be given the opportunity to respond verbally and/or in writing within a reasonable time frame.

4. The complainant and the accused individual may present any document or information that is believed to be relevant to the complaint.

5. Any persons thought to have information relevant to the complaint shall be interviewed and such interviews shall be appropriately documented.

6. The investigation of a complaint will be concluded as soon as possible after receipt of the written complaint. In investigations exceeding 60 days, a justification for the delay shall be presented to and reviewed by the Executive Director of the EEO/AA Office. The complainant, accused individual and supervisor will be provided an update on the progress of the investigation after the review.

7. Upon completion of the investigation, a written report will be issued. The report shall include: a recommendation of whether a violation of the policy occurred, an analysis of the facts discovered during the investigation, any relevant evidence and recommended disciplinary action if a violation of the policy occurred.

8. A copy of the report will be sent to the appropriate administrative official. Written notification of the findings of the investigation and outcome will be sent to the complainant and the respondent by the appropriate administrative official. The complainant and the respondent have seven (7) working days from the date of the notification letter to submit comments regarding the investigation to the administrative official. However, if a complaint is filed against a student then the complainant and respondent may not receive or comment on the notification letter in accordance with the Family Education Rights and Privacy Act’s restrictions on disclosure of educational records.
9. Within thirty (30) working days of receiving any comments submitted by the complainant or respondent, the appropriate administrative official will take one of the following actions: a) request further investigation into the complaint; b) dismiss the complaint if the results of the completed investigation are inconclusive or there is insufficient reasonable, credible evidence to support the allegation(s); or c) find that this policy was violated. A decision that this policy was violated shall be made upon the record provided by the investigator and any comments submitted by the complainant or respondent; and shall be based on the totality of circumstances surrounding the conduct of complained of, including but not limited to: the context of that conduct, its severity, frequency, whether it was physically threatening, humiliating, or was simply offensive in nature. Facts will be considered on the basis of what is reasonable to persons of ordinary sensitivity and not on the particular sensitivity or reaction of an individual.

10. If the appropriate administrative official determines that this policy was violated, he or she, will take disciplinary action that is appropriate for the severity of the conduct. Disciplinary actions can include, but are not limited to verbal reprimands, written reprimands, the imposition of conditions, reassignment, suspension, and dismissal.

11. The complainant and the respondent shall be informed in writing of the administrative official's decision. However, if a complaint if filed against a student, then the determination letter sent to the complainant will be written in compliance with the Family Education Rights and Privacy Act.

12. Implementation of disciplinary action against faculty and employees will be handled in accordance with the University's policy and procedures for discipline and dismissal of faculty and employees. The Associate/Assistant Dean for Student Affairs or the Associate Dean for Graduate Medical Education in the Medical School will impose disciplinary action, if any, against a student, resident or fellow in accordance with the University's appropriate disciplinary procedures.

VII. PROVISIONS APPLICABLE TO ALL COMPLAINTS

A. Assistance. During the complaint process, a complainant or respondent may be assisted by a person of his or her choice; however, the assistant may not examine witnesses or otherwise actively participate in a meeting or interview.

B. Retaliation. An administrator, faculty member, student, resident, fellow or employee who retaliates in any way against an individual who has brought a complaint pursuant to this policy or an individual who has participated in an investigation of such a complaint is subject to disciplinary action, including dismissal.

C. False Complaints. Any person who knowingly and intentionally files a false complaint under this policy or any person who knowingly and intentionally makes false statements within the course of the investigation is subject to disciplinary action up to and including dismissal from the University.

D. Confidentiality and Documentation. The University shall document complaints and their resolution. The Office of Equal Employment Opportunity/Affirmative Action shall retain the official documentation. The Associate/Assistant Deans will forward documentation of resolutions to the Office of EEO/AA at the conclusion of the process for which they are responsible to conduct. To the extent permitted by law, complaints and information received during the investigation will remain confidential. Relevant information will be provided only to those persons who need to know in order to achieve a timely resolution of the complaint.

VIII. DISSEMINATION OF POLICY

A. The policy will be made available to all faculty, employees, students, residents and fellows. Periodic notices sent to students, residents, fellows employees and faculty about the University's Nondiscrimination Policy will include information about the complaint procedure and will refer individuals to designated offices for additional information.

B. The University periodically will educate and train employees and supervisors regarding the policy and conduct that could constitute a violation of the policy.

Absences on Religious Holy Days

Students may take an examination or complete an assignment missed during the observance of a religious holy day(s) if they give notification of the planned absence to the instructor(s) no later than the fifteenth day after the first day of the semester.

A “religious holy day” is a day observed by a religion whose place of worship is exempt from property taxation.

Notification to instructors must be accomplished by the use of a standard form (Notification of Planned Absence To Observe a Religious Holy Day) available from the Registrar's Office which, upon completion, will meet the policy requirements of the University regarding absences for observance of a religious holy day. The Notification of Planned Absence To Observe a Religious Holy Day form is initiated by the student and signed and dated by the instructor.

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. 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.

This policy will be followed unless it interferes with patient care.

Alcohol Policy for Student Organizations

Approval to serve alcoholic beverages will only be given to official student functions sponsored by the Office of Student Services such as the on-campus individual school picnic’s held at the beginning of the academic year and selected on-campus SGA events. The chief student affairs officer shall petition the president’s office for the official designation of selected events.

In implementing a University Policy on the service of alcohol, all Health Science Center student events approved for alcohol must complete the Request for Alcoholic Beverages on Campus for Student Organizations from the Office of Student Services and comply with the following requirements:

1. Provide designated drivers.
2. Utilize designated servers who have been certified by the Texas Alcoholic Beverage Commission.
3. Provide nonalcoholic beverages.
4. Provide food.
5. Check picture identifications. Must have birth date.
6. Have a University faculty advisor or her/his designee present at this event.
7. Have sufficient University Police Officers based on number of attendees and type of event.

Failure to comply with these requirements will result in a loss of privileges regarding use of alcohol on campus.

See the “UTHSCSA Policy on Alcohol, Drug, and Chemical Abuse” later in this Catalog.

Animal Use Policy

All animals used for teaching, training, and research, or any other activities by UTHSCSA faculty, staff, and students on this campus or elsewhere, shall be used and cared for in accordance with all provisions of the Animal Welfare Act and other Federal statutes and regulations relating to the humane care and use of laboratory animals. Misuse or abuse of laboratory animals will not be tolerated and should be reported to the Institutional Animal Care and Use Committee.

The HSC offers courses in which laboratory animals are an integral part of the curriculum. Although students are encouraged to take advantage of every educational opportunity offered, they are not required to participate in manipulations involving laboratory animals. In some cases, alternative exercises may be substituted at the discretion of and in consultation with the course director.

Change of Address

A student’s current address, e-mail address, and telephone number should be on file with the Registrar at all times. If a student moves, even temporarily, he/she must inform the Registrar. Often, persons must contact students to relay emergency messages from relatives, the Student Financial Aid Office, Deans’ offices, etc. Students may change their address, etc. on the Web at http://inside.uthscsa.edu. Students will be held responsible for official notices from the University e-mailed to her/his address of record or mailed to her/his local address the student has given the school. Students are reminded to check e-mail and mailboxes regularly. (See “Official Notification Procedure” in this section.)

Clearance to Withdraw

If a student leaves the HSC through (1) withdrawal, (2) dismissal, or (3) leave of absence, the following procedure should be followed:

- Inform the Associate Dean of the school who will issue the student an Official University Student Clearance Form. (The Dean then notifies the Registrar’s Office that the student is in the process of clearing.)
- It is the student’s responsibility to obtain clearance in appropriate areas listed on the form such as the Library, laboratories, University Police, Student Financial Aid, Bursar’s Office, etc.
- If a student is receiving financial aid or has student financial aid debt, he/she must schedule an Exit Interview with the Student Financial Aid Office to work out repayment schedules, etc.
- See Financial Aid Process for specific information concerning effects of withdrawal on financial aid received.

It is not always possible to complete the clearance process in one day. Until a student is cleared in all areas, a “Hold” will be in force on her/his official transcript.

Graduation Procedures

Candidates for certificates/degrees are required to complete the following procedures:

- Apply for graduation: by July 1 for fall; Nov. 1 for spring; and March 1 for summer.
- Complete and return to the Registrar’s Office the University’s Application for Degree and Diploma Name form in the semester before anticipated graduation.
- Register in the semester the certificate or degree is to be conferred.
- Attend an Exit Interview session scheduled by the Student Financial Aid Office for students who have received financial assistance which must be repaid after graduation.
Invitations to commencement ceremonies can be ordered through the Bookstore which also makes arrangements for academic regalia for students and faculty.

The student’s “diploma name” as requested in the Application for Degree and Diploma Name form is printed on her/his diploma, and information provided by the student is used in commencement programs.

Class pictures (a composite of individual photos) of graduating classes in the School of Nursing may be ordered by degree candidates. Individual photographs are taken and ordered for commencement ceremonies. Pictures must be paid for at the Bursar’s Office. The finished product is mailed by the photographer to students who have ordered and paid for class pictures.

Group pictures are taken at commencement rehearsals for students in Allied Health Sciences, Nursing, Medical, and Dental schools. Individual photos of each graduate receiving her/his diploma or certificate may also be made at ceremonies. Students may order copies and pay the photographer who will mail prints to students when they are ready.

Inclement Weather Policy
During severe weather, students, faculty, and staff are expected to meet their responsibilities if they can safely travel. Those who are unable to do so are expected to notify (in the case of students) their faculty or program office and any clinical agency if they are involved in rotations or clinicals off campus and cannot travel safely.

The President may declare an “extreme weather closure” if conditions are such that the University will remain closed. The University’s Web site will announce any emergency preparedness/campus status information at http://www.uthscsa.edu/status.asp. The local news media usually announces the closure no earlier than 9 p.m. on the evening preceding the closure or no later than 7 a.m. on the day of closure. Local radio and television stations usually carry closing messages from the University.

Invitations to Elected or Appointed Officials
So that appropriate protocol may be followed, all invitations to elected or appointed officials (City, County, State, or National) to visit the Health Science Center campus shall be coordinated through the President’s Office prior to the invitation being extended.

We always welcome elected or appointed officials to our campus and any such visit always receives a high priority. Officials in the President’s Office will be able to assist other offices in matters pertaining to protocol, publicity guidelines (if applicable), and other details that will help insure that the visit meets all expectations.

It is not the intention to restrict any such invitation from being extended; rather, it is to facilitate the details that often surround such an occasion and to insure that important protocol and procedural matters are considered.

Official Notification Procedure
Official notifications from faculty and administration are sent to the student’s campus e-mail address in most instances. Exceptions are official communications involving issues of promotion status, dismissal proceedings, or disciplinary matters. Such correspondence is sent to the local address the student has given the school and is mailed with a “Return Receipt Requested” notice to the U.S. Postal Office. (A copy also is sent to the student’s campus mailbox.)

Personal Emergency Notification
During business hours, persons wishing to contact medical or dental students because of an emergency are directed to call the appropriate office of the Associate/Assistant Dean of Student Affairs. Nursing students may be reached for emergency messages by calling the Student Academic Services Office; graduate students by calling the student’s department office; and allied health students by calling the office of the program in which the student is enrolled. Office numbers can be found in the UTHSCSA Faculty and Staff Directory on the Web at: http://adminweb.uthscsa.edu/Directory.

After-hours calls should be made to the University Police (210) 567-2800 who will contact the appropriate administrator.

UTHSCSA Fraud Policy
Management is responsible for establishing internal controls and other systems to prevent or detect fraud. Each manager should be familiar with the types of fraud that might occur within her/his area of responsibility and be alert for any indication of fraud.

Detected or suspected fraud must be reported immediately to the Director of Internal Audit who is responsible for coordinating all investigations, both internal and external.

Scope
The conditions of this policy apply to any fraud, or suspected fraud, involving UTHSCSA faculty, staff, students, vendors, or outside agencies doing business with UTHSCSA.

Actions Constituting Fraud
As used in this policy, the term “fraud” shall mean any defalcation, misappropriation, and/or other fiscal irregularities that would include but are not limited to:

- any dishonest or fraudulent act;
- forgery or alteration of any document or account belonging to the UTHSCSA;
- forgery or alteration of any check, bank draft, or any other financial document;
- misappropriation of funds, supplies, or other assets;
- impropriety in the handling or reporting of money or financial transactions;
• accepting or seeking anything of material value from vendors or persons providing services/material to the UTHSCSA;
• destruction or disappearance of records; AND/OR
• any similar or related irregularity.

Non-Fraud Irregularities

It is possible that certain allegations involving fraudulent activities covered by this policy may also involve violations of other University policies, criminal law, or the regulations of various state and federal agencies. When the Director of Internal Audit determines that the allegations relate solely to the violation of other policies, the Director of Internal Audit will refer the matter to the appropriate official with responsibility for other such policies. In cases where the allegations appear to constitute fraud as defined in this policy and violate other regulations, the Director of Internal Audit shall meet with the officials responsible for the other policies and together with management develop a plan for conducting the investigation.

Investigation Responsibilities

The Director of Internal Audit has the primary responsibility for the investigation and will issue reports to the appropriate senior management personnel.

Decisions to prosecute or turn matters over to appropriate law enforcement and/or regulatory agencies for independent investigation will be made in conjunction with University Police and senior management.

Confidentiality

The Director of Internal Audit is receptive to receiving relevant information on a confidential basis from a UTHSCSA faculty member, staff, or student who suspects dishonest or fraudulent activity. That individual should contact the Director of Internal Audit immediately, and should not attempt to personally conduct investigations or interviews/interrogations related to suspected fraud.

Authorization for Investigating Suspected Fraud

In those instances in which the Director of Internal Audit believes it to be in the best interests, members of the Internal Audit Office have the authority and duty, after consulting with appropriate management, to:
• take control of, and/or gain full access to, all UTHSCSA premises, whether owned or rented; AND
• examine, copy, and/or remove all or any portion of the contents of files, records, desks, cabinets, and other storage facilities on the premises without prior knowledge or consent of any individual who may use or have custody of any such items or facilities.

Reporting Procedure

Care must be taken in the investigation of suspected fraud so as to avoid mistaken accusations or alerting suspected individuals that an investigation is under way. An employee who discovers or suspects fraudulent activity should contact the Director of Internal Audit immediately. All inquiries from the suspected individual and her or his attorney or representative should be directed to the Director of Internal Audit.

The reporting employee must adhere to the following restrictions:
• Do not contact the suspected individual in an effort to determine facts or demand restitution.
• Do not discuss the case, facts, suspicions, or allegations with anyone outside unless specifically asked to do so by the Director of Internal Audit or other authorized University officials.
• Do not discuss the case with anyone inside other than the Internal Audit Office or other authorized University officials who have a legitimate need to know.

Administration

The Director of Internal Audit is responsible for the administration, interpretation, and application of this policy.

Software Copyrights

Software piracy is a very serious issue. The following standards apply at UTHSCSA:
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.

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 immediately.

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.

Details of the U. T. System and University policies regarding copyrighted materials may be found in the Handbook of Operating Procedures. For additional information, check the U. T. System’s Office of General Counsel home page at http://www.utsystem.edu/OGC/.

Student Publications

A student government association (including classes/class officers) has the right to prepare and distribute newsletters, bulletins, and other forms of publications provided that when taking a position on an issue, the publication shall make clear that it does not speak for the institution.

Anonymous publications are prohibited by the Rules and Regulations of the Board of Regents. UPDATE is a newsletter for students produced by the Office of Student Services. UPDATE is generally published monthly, September – May (Web site: http://studentservices.uthscsa.edu/Update/Update.html).

The Student Guide, this Catalog, and Applicant Viewbook...
Student Role in University Decision Making

Much of the University decision making is accomplished through the work and recommendations of committees made up of faculty, students, and staff. Students are appointed to University committees which deal with issues that directly affect students. In addition, many school committees have student representatives.

Students are appointed to HSC committees upon the recommendation of the chief student affairs officer. Those interested in serving on committees make contact with the Associate/Assistant Dean for Student Affairs of the student’s school. The chief student affairs officer shall solicit interested students from all Associate Deans of Student Affairs, and submit committee choices to the President, who then makes committee appointments.

The committees’ charges and numbers of students appointed to the committees appears in the Office of Student Services section of the Student Guide.
Student Conduct and Discipline

Students are responsible for knowing and observing the University's "Procedures and Regulations Governing Student Conduct and Discipline."

In summary, the procedures and regulations provide that the person acting as Associate/Assistant Dean of Student Affairs of each school shall have direct responsibility for the administration of the disciplinary process in cases concerning scholastic dishonesty and professional misconduct.

The chief student affairs officer has direct responsibility for the administration of the disciplinary process in areas not directly related to the academic or professional training of the student.

If after investigation of an alleged violation of the "Procedures and Regulations Governing Student Conduct and Discipline," the Associate/Assistant Dean of Student Affairs or the chief student affairs officer determines the allegations are not unfounded, he/she will prepare a written statement of charges and a summary statement of the evidence and present the statements to the accused student.

If the accused does not dispute the facts and waives a hearing, the chief student affairs officer or the person acting as Associate/Assistant Dean of Student Affairs assesses a penalty consistent with those outlined in the regulations. If the student disputes the facts, a hearing officer will be selected to hear evidence, to adjudicate guilt or innocence, to render a written decision, and to impose a penalty if one is due. The decision may be appealed to the HSC President.

Penalties which may be imposed include a warning; probation; a financial penalty when property damage is involved; suspension of rights and privileges deriving in whole or part from the University; suspension of eligibility for office or honor; loss of credit for scholastic work; reduction of the grade in an assigned course; a failing examination grade; a failing grade in the course; suspension from the University; expulsion; withholding of grades, official transcripts, or degrees; or other penalty imposed by the hearing officer/committee, the chief student affairs officer, or the Associate/Assistant Dean of Student Affairs.

The full text of the regulations should be consulted in reference to questions concerning conduct and discipline.

Procedures and Regulations Governing Student Conduct and Discipline

Sec. 1.
Definitions.

2.1 Student. The following persons shall be considered students for purposes of these policies and regulations:

2.11 A person currently enrolled at a component institution of the System.
2.12 A person accepted for admission or readmission

2.13 A person who has been enrolled at a component institution of the System in a prior semester or summer session and is eligible to continue enrollment in the semester or summer session that immediately follows.

2.14 A person who engaged in prohibited conduct at a time when he or she met the criteria of Subdivisions 2.11, 2.12, or 2.13.

2.2 Campus. The campus consists of all real property, buildings or facilities owned or controlled by the component institution.

2.3 Hearing Officer. An individual selected in accordance with procedures adopted by the component institution to hear disciplinary charges, make findings of fact and, upon a finding of guilt, impose an appropriate sanction(s).

2.4 Weekday. Monday through Friday, excluding any day that is an official holiday of the component institution.

2.5 Day. A calendar day.

Sec. 3.
Student Conduct and Discipline.

3.1 The component institutions shall adopt rules and regulations concerning student conduct and discipline. Such rules shall be in compliance with the Regents’ Rules and Regulations and shall become effective upon review and approval by the Executive Vice Chancellor for Health Affairs or the Vice Chancellor for Academic Affairs. Each student is responsible for notice of and compliance with the provisions of the Regents’ Rules and Regulations and the rules of the component institution.

3.2 All students are expected and required to obey federal, state, and local laws, to comply with the Regents’ Rules and Regulations, with System and institutional rules and regulations, with directives issued by an administrative official of the System or component institution in the course of his or her authorized duties, and to observe standards of conduct appropriate for an academic institution.

3.21 Any student who engages in conduct that violates the Regents’ Rules and Regulations, the System or institutional rules and regulations, specific instructions issued by an administrative official of the institution or the 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.

3.22 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.

3.23 Any student who is guilty of the illegal use, possession and/or sale of a drug or narcotic on the campus of a component institution is subject to discipline. If a student is found guilty of the illegal use, possession, and/or sale of a drug or narcotic on campus, the minimum penalty shall be suspension from the institution for a specified period of time and/or suspension of rights and privileges.

3.24 Any student who engages in conduct that endangers the health or safety of any person on the campus of a component institution or on any property, or in any building, or facility owned or controlled by the System or component institution is subject to discipline.

3.25 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 System or component 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.

3.26 Any student who engages in speech, either orally or in writing, that is directed to inciting or producing imminent lawless action and is likely to incite or produce such action is subject to discipline.

3.27 Any student who engages in the unauthorized use of property, equipment, supplies, buildings, or facilities owned or controlled by the System or component institution is subject to discipline.

3.28 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 (Section 51.936, Texas Education Code). 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
A student who alters or assists in the altering of any official record of the System or component 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 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.

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

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

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 System or component institution, is subject to discipline.

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.

A former student who has been suspended or expelled for disciplinary reasons is prohibited from being on the campus of any component 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.

The Dean of Students shall have primary authority and responsibility for the administration of student discipline at each component institution. It shall be the Dean’s duty to investigate allegations that a student has engaged in conduct that violates the Regents’ Rules and Regulations, the rules and regulations of the institution or the System, specific instructions issued by an administrative official of the institution or the System in the course of his or her authorized duties, or any provisions of federal, state, and/or local laws. The Dean may proceed with the investigation and with the disciplinary process, notwithstanding any action taken by other authorities.

A student may be summoned by written request of the Dean for a meeting to discuss the allegations. The written request shall specify a place for the meeting and a time at least three (3) weekdays after the date of the written request. The written request may be mailed to the address appearing in the records of the registrar 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 Subsection 3.5. The refusal of a student to accept delivery of the notice or the failure to maintain a current address with the registrar shall not be good cause for the failure to respond to a summons.

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, including: (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; or (b) the withholding of grades, degree or official transcript when such action is in the best interest of the institution.

When interim disciplinary action has been taken by the Dean under Subdivision 3.42, a hearing of the charges against the student will be held under the procedures specified in Subsection 3.5, but will be held within ten (10) days after the interim disciplinary action was taken unless the student agrees in writing to a hearing at a later time or unless the student waives a hearing and accepts the decision of the Dean in accordance with Subdivision 3.44.

In any case where the accused student does not dispute the facts upon which the charges are based and executes a written waiver of
the hearing procedures specified in Subsection 3.5, the Dean shall assess one or more of the penalties specified in Subsection 3.6 that is appropriate to the charges and inform the student of such action in writing. The minimum penalty that the Dean may assess when a student admits illegal use, possession, and/or sale of a drug or narcotic on campus is the penalty prescribed in Subdivision 3.23 of this Section. The decision of the Dean on penalty only may be appealed to the chief administrative officer.

3.5 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.

3.51 Except in those cases where immediate interim disciplinary action has been taken, the accused student shall be given at least ten (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.

3.52 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 (3) 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.

3.53 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.

3.54 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 the guilt or innocence of the accused student. Upon a conclusion of guilt the Hearing Officer shall assess a penalty or penalties specified in Subsection 3.6. Guilt of the illegal use, possession, or sale of a drug or narcotic on campus requires the assessment of a minimum penalty provided in Subdivision 3.23.

3.55 The hearing shall be conducted in accordance with procedures adopted by the component 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 (5) 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, make objections, or present argument to the Hearing Officer.

(3) The Dean may recommend a penalty to be assessed by the Hearing Officer. The recommendation may be based upon past practice of the component 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.

(4) 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 chief administrative officer the recording of the hearing will be transcribed and both parties will be furnished a copy of the transcript.

3.6 The following penalties may be assessed by the Dean pursuant to Subdivision 3.44 or by the Hearing Officer.
after a hearing in accordance with the procedures specified in Subdivision 3.55:

3.61 Disciplinary probation.
3.62 Withholding of grades, official transcript and/or degree.
3.63 Bar against readmission.
3.64 Restitution or reimbursement for damage to or misappropriation of institutional or System property.
3.65 Suspension of rights and privileges, including participation in athletic or extracurricular activities.
3.66 Failing grade for an examination or assignment or for a course and/or cancellation of all or any portion of prior course credit.
3.67 Denial of degree.
3.68 Suspension from the institution for a specified period of time.
3.69 Expulsion (permanent separation from the institution).
3.6(10) Revocation of degree and withdrawal of diploma.
3.6(11) Other penalty as deemed appropriate under the circumstances.

3.7 Appeal Procedures. A student may appeal a disciplinary penalty assessed by the Dean in accordance with Subdivision 3.44. Either the Dean or the student may appeal the decision of the Hearing Officer. An appeal shall be in accordance with the following procedures:

3.71 Written notice of appeal must be delivered to the chief administrative officer of the component institution within fourteen (14) days after the appealing party has been notified of the penalty assessed by the Dean or the decision of the Hearing Officer. If the notice of penalty 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 fourteen (14) day period for giving notice of appeal. An appeal of the penalty assessed by the Dean in accordance with Subdivision 3.44 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. In order for the appeal to be considered, all the necessary documentation to be filed by the appealing party, including written argument, must be filed with the chief administrative officer within fourteen (14) days after notice of appeal is given. At the discretion of the chief administrative officer, both parties may present oral argument in an appeal from the decision of the Hearing Officer.

3.72 The chief administrative officer 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 if the finding as to guilt is upheld in a case involving the illegal use, possession, and/or sale of a drug or narcotic on campus, the penalty may not be reduced below the minimum penalty prescribed by Subdivision 3.23 of this Section.

3.73 The action of the chief administrative officer shall be communicated in writing to the student and the Dean within thirty (30) days after the appeal and related documents have been received. The decision of the chief administrative officer is the final appellate review.

3.8 Each component institution shall maintain a permanent written disciplinary record for every student assessed a penalty 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 separately from the student’s academic record, shall be treated as confidential, and shall not be accessible to or used by anyone other than the Dean, except upon written authorization of the student or in accordance with applicable state or federal laws or court order or subpoena.

Due Process

Students accused of violations of the “Procedures and Regulations Concerning Student Conduct and Discipline” shall have the rights of due process:

- The right to know the charges and the evidence;
- The right to confront and examine witnesses;
- The right to be represented by a person of her/his choice;
- The right to be heard by an impartial body or officer; and
- The right to an appeal process.
Privacy Rights

Students’ academic records and personal information must be kept confidential by the University under federal law. (See “Family Educational Rights and Privacy Act” below.)

Only certain University personnel, officials of other institutions to which a student may be seeking admission, persons or organizations providing financial aid, accrediting agencies, persons with a judicial order, individuals attempting to protect the health or safety of others, or organizations conducting studies for specified educational purposes are permitted access to a student’s records without her/his consent.

Directory information is published information and may contain a student’s name, school and class, address, E-mail address, telephone number, date and place of birth, degrees and awards received, and the most recent previous educational institution attended. Students may withhold all or part of the directory information except first and last name, middle initial, school, and class by notifying the Registrar in writing within 12 days after the first day of class for the fall semester. This procedure must be continued each year, if the student wishes to continue to withhold directory information.

A student has the right to inspect her/his educational records and to challenge the contents. To review records, a student must make a request in writing to the Registrar. Some documents in a student’s file such as (1) confidential letters/recommendations, (2) parents’ financial records, and (3) documents pertaining to more than one student will not be made available to the requestor. If a student wishes to challenge or amend information in her/his files, the student may appeal in writing to the chief student affairs officer. For full procedures, see the “Family Educational Rights and Privacy Act” below.

Family Educational Rights and Privacy Act
The Family Educational Rights and Privacy Act of 1974 is a Federal law which provides that the institution will maintain the confidentiality of student education records.

UTHSCSA accords all the rights under the law to students who are declared independent. No one outside the institution shall have access to nor will the institution disclose any information from students’ education records without the written consent of students except to appropriate personnel within the institution; to officials of other institutions in which students seek to enroll; to persons or organizations providing students financial aid; to accrediting agencies carrying out their accreditation function; to persons in compliance with judicial order; 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 of 1954, provided a reasonable effort is made to notify the student in advance; and to an alleged victim of any crime of violence, the results of the alleged perpetrator’s disciplinary proceeding may be released. All these exceptions are permitted under the Act.

A record of requests for disclosure and such disclosure of personally identifiable information from student education records shall be maintained by the chief student affairs officer for each student and will also be made available for inspection pursuant to this policy. If the institution discovers that a third party who has received student records from the institution has released or failed to destroy such records in violation of this policy, it will prohibit access to educational records for five (5) years. Respective records no longer subject to audit nor presently under request for access may be purged according to regular schedules.

Within the UTHSCSA community, only those members, individually or collectively, acting in the students’ educational interest are allowed access to student education records. These include personnel in the offices of the Registrar, Student Financial Aid, Deans and President, the student’s faculty advisor, and academic personnel within the limitations of their need.

At its discretion, the institution may provide Directory Information in accordance with the provisions of the Act to include: student name, school and class, address, E-mail address, telephone number, date and place of birth, dates of attendance, photograph, degrees and awards received, major field of study, classification, date of graduation, class schedules, and the most recent previous educational agency or institution attended by the student. Students may withhold Directory Information by notifying the Registrar in writing within 12 days after the first day of class for the fall semester. 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.

The law provides students with their right to inspect and review information contained in their education records, to challenge the contents of their education records, to have a hearing if the outcome of the challenge is unsatisfactory, and to submit explanatory statements for inclusion in their files if they feel the decisions of the hearing panels to be unacceptable. The chief student affairs officer has been designated by the institution to coordinate the inspection and review procedures for student education records, which include admissions, personal, academic, financial, and disciplinary records.

Students wishing to review their education records must make written requests to the custodian of records (see Directory of Records) listing item or items of interest. Only
records covered by the act will be made available within 45 days of the request. Students may have copies made of their records with certain exceptions (e.g., an official copy of the academic record for which a financial “hold” exists, or a transcript of an original or source document which exists elsewhere). These copies would be made at the students’ expense at prevailing rates which are listed with the Directory of Records.

Education records do not include records of instructional, administrative, and educational personnel which are the sole possession of the maker and are not accessible or revealed to any individual except a temporary substitute, records of the law enforcement unit, student thesis or research papers, student health records, student counseling records, employment records, or alumni records. Health records, however, may be reviewed by physicians of a student’s choosing.

Students may not inspect and review the following as outlined by the Act: financial information submitted by their parents; confidential letters and recommendations associated with admissions, employment, or job placement; honors to which they have waived their rights of inspection and review; or education records containing information about more than one student, in which case the institution will permit access only to that part of the record which pertains to the inquiring student. The institution is not required to permit students to inspect and review confidential letters and recommendations placed in their files prior to January 1, 1975, provided those letters were collected under established policies of confidentiality and were used only for the purposes for which they were collected.

Students who believe that their education records contain information that is inaccurate or misleading, or is otherwise in violation of their privacy or other rights, may discuss their problems informally with the chief student affairs officer. If the decisions are in agreement with the student’s requests, the appropriate records will be amended. If not, the student will be notified within a reasonable period of time that the records will not be amended; and they will be informed by the chief student affairs officer of their right to a formal hearing. Student requests for a formal hearing must be made in writing to the Vice President for Business Affairs who, within a reasonable period of time after receiving such requests, will inform students of the date, place, and the time of the hearing. Students may present evidence relevant to the issues raised and may be assisted or represented at the hearings by one or more persons of their choice, including attorneys, at the student’s expense. The hearing panels which will adjudicate such challenges will be the Vice President for Business Affairs and two faculty members appointed by the President.

Decisions of the hearing panels will be final, will be based solely on the evidence presented at the hearing, and will consist of written statements summarizing the evidence and stating the reasons for the decisions, and will be delivered to all parties concerned. The education records will be corrected or amended in accordance with the decisions of the hearing panels, if the decisions are in favor of the students. If the decisions are unsatisfactory to the students, the students may place with the education records statements commenting on the information in the records, or statements setting forth any reasons for disagreeing with the decisions of the hearing panels. The statements will be placed in the education records, maintained as part of the students’ records, and released whenever the records in question are disclosed.

Students who believe that the adjudications of their challenges were unfair, or not in keeping with the provisions of the Act may request in writing, assistance from the President of the institution. Further, students who believe that their rights have been abridged, may file complaints with The Family Educational Rights and Privacy Act Office, U.S. Department of Education, Washington, D.C. 20201, concerning the alleged failures of The University of Texas Health Science Center at San Antonio to comply with the Act.

Students may have copies of their education records and this policy. These copies will be made at the student’s expense at rates authorized in the Texas Public Information Act except that official transcripts will be $10.00. Official copies of academic records or transcripts will not be released for students who have a delinquent financial obligation or financial “hold” at the University.

Revisions and clarifications will be published as experience with the law and institution’s policy warrants.

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 transcript.

Directory of Records

Academic Records
Office of the Registrar, Room 319.L
Debra Goode, Registrar

Financial Aid Records
Office of Student Financial Aid, Room 318.L
Bob Lawson, Director of Student Financial Aid
Dr. Joseph Kobos, Director of Counseling Service
(Institutional policy prohibits academic and administrative personnel from inspecting individual records.)

Student Health Records
Student Health Clinic, 1st floor, School of Nursing
Dr. Raymond Troxler, Medical Director of the Student Health Clinic

Disciplinary Records
Associate/Assistant Dean for Student Affairs in each school

Additional Records
Associate/Assistant Dean for Student Affairs in each school
Posting of Grades
Course grades of individual students may not be posted or made available in any public manner by name, initials, social security number, unique assigned student identification number, or other personal identifier except when the student has signed an authorization.

Before a student’s grade can be posted, he/she will be asked to sign a consent form and be assigned a random number as a personal identifier. Generally, each individual faculty member who posts grades will go through the procedure to obtain consent and assign a number. (Some course instructors do not post grades.) In some schools, consent forms are processed by the Dean’s Office.

It is a student’s right to decline to sign a consent form, in which case the student’s grades will not be posted.
AIDS/HIV/HBV Infection Policies

The University of Texas Health Science Center at San Antonio recognizes its responsibility to protect the rights and privileges of students, employees, patients, and the general public against contact with the spread of infectious diseases. In recognition of human immunodeficiency virus (HIV) as a serious public health threat, UTHSCSA has adopted a policy and procedural steps to protect both the rights and well-being of those students who may be infected with HIV as well as to prevent the spread of HIV infection.

No individual with HIV infection will be discriminated against in employment, admission to academic programs, health benefits, or access to facilities. Students with HIV infection may attend all classes without restriction as long as they are physically and mentally able to participate and perform assigned work and pose no health risks to others. Any modification of the clinical training, working conditions, or privileges of HIV-infected students, faculty, staff, or employees will be determined on a case-by-case basis, taking into account the nature of the clinical activity, the technical expertise of the infected person and the risks posed by HIV-infection, attendant functional disabilities, and the transmissibility of simultaneously carried infectious agents. The confidentiality of all information regarding the medical status of UTHSCSA faculty, staff, and students will be maintained in accordance with applicable statutes. A complete copy of the UTHSCSA Policy and Guidelines on AIDS, HIV Infection, and Hepatitis B Virus follows. This policy is applicable to all students of UTHSCSA as they pursue their academic (and clinical) endeavors. Several informational brochures on AIDS are available in Student Services.

The following faculty are available to officially interact with students identified as HIV positive:

- Dental School: Dr. Denec Thomas
- Graduate School: Dr. Larry Barnes
- Biomedical Sciences
- Medical School: Dr. Leon Jones
- School of Allied Health: Dr. Douglas Murphy
- School of Nursing: Dr. Jill Hayes

UTHSCSA Policy on the Acquired Immune Deficiency Syndrome

I. Statement of Purpose

The acquired immune deficiency syndrome (AIDS) has reached epidemic proportions since the first reported cases in 1981. AIDS and human immunodeficiency virus (HIV)-related disorders have presented the health care professions with numerous issues of an ethical and moral nature related to the care and treatment of patients infected with HIV.

No cure for AIDS exists, nor has a vaccine been developed to prevent HIV infection. Because of these circumstances, fear, prejudice, and misinformation about the disease have not only developed among the population at large, but also within the health professions. It is well recognized that AIDS patients and HIV-infected individuals are entitled to competent medical care that reflects compassion and respect for human dignity as well as concern for safeguarding individual confidences within the constraints of the law.

One of the objectives of this Health Science Center is to prepare men and women for a career in the practice of a health profession. These future health care providers should be prepared for a lifetime of service to the ill which demands adherence to the highest standards of professional conduct and behavior. Furthermore, 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 Health Science Center at San Antonio on any basis prohibited by applicable law, including, but not limited to, race, color, national origin, religion, handicap, or sex. It is within this frame of reference that the following Health Science Center policies on AIDS were developed.

II. Admission of Health Professions Students with AIDS or HIV Infection; Hiring Employees with AIDS or HIV Infection

The Health Science Center shall not inquire about the HIV status of any applicant for admission to or employment at 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 her or him from completing essential degree requirements or essential duties of employment and that no reasonable accommodation could be made that would enable the applicant to do so.

III. 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 and counseling.
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.

IV. Management of Students, Faculty, Staff, and Employees of the Health Science Center with Positive Antibody to HIV-1 or Clinically Manifest AIDS or AIDS-Related Complex

The Health Science Center encourages HIV-infected students, faculty, staff, and employees to discuss their situation with a designated official. The designated official for each administrative component of the Health Science Center shall be named by the Executive Committee of the Health Science Center in consultation with the Dean of each school.

Any modification of the clinical training, working conditions, or privileges of HIV-infected students, faculty, staff, or employees will be determined on a case-by-case basis, taking into account the nature of the clinical activity, the technical expertise of the infected person, and the risks posed by HIV infection, attendant functional disabilities, and the transmissibility of simultaneously carried infectious agents. The Health Science Center may legitimately monitor the clinical activities of students, faculty, staff, or employees who are believed to pose an unwarranted risk to patients. The Health Science Center shall cooperate with the HIV-infected person, her or his personal physician, and other medical experts as appropriate in identifying and implementing special precautions and program modifications to safeguard the personal health and safety of such persons.

The Health Science Center adheres to the Universal Precautions for Prevention of Transmission of Human Immunodeficiency Virus, Hepatitis B Virus, and Other Bloodborne Pathogens in Health Care Settings (MMWR 38:377-388, 1988) established by the Centers for Disease Control. HIV-infected students, faculty, staff, and employees shall be provided counseling about access to expert medical care and about prevention of further spread of infection. The Health Science Center does not pay for the provision of health care to HIV-infected individuals. Students, faculty, staff, and employees are strongly encouraged to obtain adequate hospital and outpatient insurance coverage during their entire association with the Health Science Center.

V. Confidentiality and HIV-Infection

It is expected that all students, faculty, staff, and employees will be bound to the principle of strict confidentiality in all patient and health care related activities.

As stated in Policies III and IV, 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 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. Individuals seeking care within the health care facilities of the Health Science Center (i.e., the Medical School and Dental School, and not including its affiliated health care institutions (University Hospital, V.A. Hospital, and University Health Center-Downtown) shall be made aware that all HIV-related data become part of the individual’s medical record.

VI. Student, Faculty, and Health Care Staff Interaction with Patients with AIDS or HIV Infection

Entry into the health care professions is a privilege offered to those who are prepared for a lifetime of service to the ill. Students, faculty, and health care 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 HIV-infected patients, working conditions presenting a risk of exposure to HIV organisms, or the presence of HIV infection in the individual herself or himself, should seek the assistance of their immediate supervisor.

The Health Science Center has established a University AIDS Committee which exists as a resource to address issues related to HIV 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 HIV infection-related issues.

VII. Education of Students, Faculty, and Employees of the Health Science Center about AIDS and its Prevention

As stated in Policy IV, the Health Science Center adheres to the Universal 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. Consistent with the early education of students, staff, and employees in these and other pertinent data relevant to HIV infection, the following approach will be taken:

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 risk presented by the work setting based on guidelines generated by the AIDS Committee of the Health Science Center.

The content of this educational program shall be based upon instructional objectives developed by the Educational Subcommittee of the University AIDS Committee.

At the conclusion of any University educational programs/curriculum on AIDS, the participant should be able to:

a. Have a basic understanding of AIDS as a viral disease and its natural history.
b. Recognize how the virus is transmitted and contacts that do not transmit the virus.
c. Recognize the symptoms of AIDS and the degrees/stages of the illness.
d. Identify precautions one must take in one's own area of practice or work regarding the AIDS virus.
e. Recognize the personal and psychosocial impact of the disease on patients, families, friends, and caregivers.
f. Familiarize oneself with institutional policies about AIDS wherever working (Universal Precautions).
g. Recognize one's own role in alleviation of anxiety and misinformation.
h. Be aware of local policies regarding testing and referral information.
i. Identify legal and ethical issues that impact AIDS patients and caregivers.

The University of Texas System Policy and Guidelines on Acquired Immune Deficiency Syndrome, Human Immunodeficiency Virus Infection, and Hepatitis B Virus

1. General

The University of Texas System recognizes Human Immunodeficiency Virus (HIV) and Hepatitis B Virus (HBV) as serious public health threats and is committed to encouraging an informed and educated response to issues and questions concerning these infections.

The guidelines for Health Care Workers outlined in this document are based on the following statements from the recommendations issued by the Centers for Disease Control (CDC) on July 12, 1991:

a. Infected Health Care Workers who adhere to universal precautions and who do not perform invasive procedures pose no risk for transmitting HIV or HBV to patients.
b. Infected Health Care Workers who adhere to universal precautions and who perform certain exposure-prone procedures may pose a small risk for transmitting HBV to patients.
c. HIV is transmitted much less readily than HBV.

There are 20 published studies that indicate a total of more than 300 patients who were infected with HBV in association with treatment by an HBV-infected Health Care Worker. These studies concluded that a combination of risk factors accounted for transmission of HBV from Health Care Workers to patients.

Of the Health Care Workers whose Hepatitis B antigen (HBeAg) status was determined, all were HBeAg positive. The presence of HBeAg in blood serum is associated with higher levels of circulating virus and therefore with greater infectivity of Hepatitis-B positive individuals; the risk of HBV transmission to Health Care Workers after a percutaneous (i.e., puncture through the skin) exposure to HBeAg-positive blood is approximately 30%.

The risk of HIV transmission to a Health Care Worker after percutaneous exposure to HIV-infected blood is considerably lower than the risk of HBV transmission after percutaneous exposure to HBeAg-positive blood (0.3% versus approximately 30%). Thus, the risk of transmission of HIV from an infected Health Care Worker to a patient during an invasive procedure is likely to be proportionately lower than the risk of HBV transmission from an HBeAg-positive Health Care Worker to a patient during the same procedure. Unlike HBV infection, however, there is currently no readily available laboratory test for increased HIV infectivity.

Investigation of incidents of HIV infections among patients in the practice of one dentist with acquired immunodeficiency syndrome (AIDS) strongly suggested that HIV was transmitted to five of the approximately 850 patients evaluated through June 1991. The investigation indicates that HIV transmission occurred during dental care, although the precise mechanisms of transmission have not been determined. In two other studies, when patients who had been treated by a general surgeon and surgical resident who had AIDS were tested, all patients tested were negative for HIV infection. In another study, patients treated by a dental student with HIV infection and who were later tested were all negative for HIV infection. Another investigation of patients whose surgical procedures had been performed by a general surgeon within seven years before the surgeon was diagnosed as having AIDS failed to document transmission of HIV from the surgeon to the patients.
2. Purpose, Scope, and Definitions

2.01 The purpose of this policy is to provide guidance for The U. T. System and its component institutions in complying with statutes concerning acquired immune deficiency syndrome, human immunodeficiency virus, and Hepatitis B virus. 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:

(a) Administrative policies;
(b) Residence life;
(c) Health education;
(d) Testing for HIV or HBV infection;
(e) Confidentiality of information related to persons with AIDS, HIV, or HBV infection; and
(f) Patient care.

2.02 This policy is applicable to students, faculty, and employees of The U. T. System and its component institutions and shall be made available to students, faculty, and staff members of each component institution by its inclusion in the student, faculty, and personnel guides if practicable, or by any other method.

2.03 Definitions:

(a) Invasive Procedure: Surgical entry into tissues, cavities, or organs; repair of major traumatic injuries; cardiac catheterization and angiographic procedures; a vaginal or cesarean delivery or other invasive obstetric procedure during which bleeding may occur; or the manipulation, cutting, or removal of any oral or perioral tissues, including tooth structure, during which bleeding occurs or the potential for bleeding exists.

(b) Exposure-Prone Procedure: A procedure involving the contact of a Health Care Worker's finger with a needle tip in a body cavity or the simultaneous presence of the Health Care Worker's fingers and a needle or other sharp instrument or object in a poorly visualized or highly confined area of the body. Such procedures pose a recognized risk of injury to the Health Care Worker that is likely to result in the Health Care Worker's blood contacting the patient's body cavity, subcutaneous tissues, or mucous membranes.

(c) Health Care Worker: A person who provides direct patient health care services pursuant to authorization of a license, certificate, or registration, or in the course of a training or education program.

(d) Institutional Committee: A task force or institution-wide committee appointed by The U. T. System component institution to oversee the development and implementation of educational programs related to HIV and HBV, and to advise the administration on policies regarding HIV and HBV. It is suggested that the Committee include, as a minimum, representation from the faculty, the student body, and administrative areas such as housing services, health services, counseling services, and food services.

(e) Component Expert Review Panel: A panel appointed by the Chief Administrative Officer of the component institution to review instances of HIV or HBV infection in Health Care Workers and to identify exposure-procedures and to determine those circumstances, if any, under which a Health Care Worker who is infected with HIV or is HBeAg positive may perform such procedures. The panel should be composed of experts who provide a balanced perspective and might include:

1. Health Care Worker's personal physician(s);
2. an infectious disease specialist with expertise in the epidemiology of HIV and HBV transmission;
3. a health professional with expertise in the procedures performed by the affected Health Care Worker;
4. a member of the component institution's infection-control committee, preferably a hospital epidemiologist; and
5. an occupational health specialist.

(f) System Review Panel: A panel responsible for reviewing the actions of each Component Expert Review Panel to assure uniform and consistent compliance with these guidelines and applicable statutes and regulations. The panel shall be composed of an expert in blood-borne infections (including HIV and HBV) from each health component institution appointed by the Chief Administrative Officer and representatives from The U. T. System Office of Health Affairs, Office of Academic Affairs, and Office of General Counsel.

(g) HBeAg: That portion of the Hepatitis B virus, whose presence in the blood of a person correlates with higher levels of circulating virus and therefore with greater infectivity of that person's blood; the presence of HBeAg in blood can be detected by appropriate testing.

3. General Policies

3.01 Admissions to Schools — The existence of HIV or HBV infection should not be considered in admissions decisions unless current scientific information indicates required academic activities will likely expose others to risk of transmission.

3.02 Residential Housing — Residential housing staff will not exclude HIV-infected or HBV-infected students
3.03 **Employment** — The existence of HIV or HBV infection will not be used to determine suitability for employment by any U. T. component institution or U. T. System Administration unless the position requires performance of exposure-prone procedures as identified by the Component Expert Review Panel.

3.04 **Class Attendance** — A student with HIV or HBV infection should be allowed to attend all classes without restrictions, as long as the student is physically and mentally able to participate, perform assigned work, and poses no health risk to others.

3.05 **Health Care Workers and Students Assigned to Work Within Clinical Settings (Health Care Workers)** — Current information from investigations of HIV and HBV transmission from Health Care Workers to patients indicates that when Health Care Workers adhere to recommended infection-control procedures the risk of transmitting HBV from an infected Health Care Worker to a patient is small, and the risk of transmitting HIV is likely to be even smaller; however, the likelihood of exposure of the patient to a Health Care Worker’s blood is greater for certain invasive procedures designated as exposure-prone. Performance of exposure-prone procedures presents a recognized risk of percutaneous injury to the Health Care Worker, and—if such an injury occurs—the Health Care Worker’s blood is likely to contact the patient’s body cavity, subcutaneous tissues, and/or mucous membranes. To minimize the risk of HIV or HBV transmission from an infected Health Care Worker to a patient, the following measures will be followed:

(a) All Health Care Workers must adhere to universal infection control precautions, including the appropriate use of hand washing, protective barriers, and care in the use and disposal of needles and other sharp instruments. Health Care Workers who have exudative (oozing) lesions or weeping dermatitis (oozing inflammation of the skin) must refrain from all direct patient care and from handling patient-care equipment and devices used in performing invasive procedures until the condition resolves. Health Care Workers will also comply with current guidelines for disinfection and sterilization of reusable devices used in the invasive procedures. All component institutions that provide health care shall establish procedures for monitoring compliance with universal precautions.

(b) Currently available data provide no basis for recommendations to restrict the practice of Health Care Workers infected with HIV or HBV who perform invasive procedures not identified as exposure-prone, provided the infected Health Care Workers practice recommended surgical or dental technique and comply with universal infection for sterilization/disinfection.

(c) Exposure-prone procedures will be identified at each component institution by the Component Expert Review Panel.

(d) Health Care Workers who perform exposure-prone procedures should know their HIV and HBV status. Those infected with HBV also should know their HBsAg status.

(e) All Health Care Workers providing direct patient care should have a complete series of Hepatitis B vaccine prior to the start of direct patient care or complete the series as rapidly as is medically feasible, or should be able to show serologic confirmation of immunity to Hepatitis B virus.

(f) A Health Care Worker who is infected with HIV or HBV (and is HBsAg positive) may not perform or engage in activities that might require her or him to perform exposure-prone procedures unless the Component Expert Review Panel has counseled the Health Care Worker and has prescribed the circumstances under which such procedures may be performed. Continued performance of such procedures must include notifying a prospective patient or person legally authorized to consent for an incompetent patient that the Health Care Worker is infected with HIV or HBV and obtaining consent to perform a procedure before the patient undergoes an exposure-prone procedure. Such notification is not required in a medical emergency when there is insufficient time to locate another Health Care Worker to perform the exposure-prone procedure and to obtain consent without endangering the patient’s health.

A Health Care Worker infected with HIV or HBV who performs invasive, but not exposure-prone procedures as identified by the Component Expert Review Panel shall not have his or her practice restricted solely on the basis of HIV or HBV infection provided he or she adheres to the universal precautions for infection control.

The actions and recommendations of the Component Expert Review Panel shall be reported to the Chief Administrative Officer and to the appropriate Executive Vice Chancellor and shall be presented to the System Review Panel.

Academic institutions without the human resources to establish Component Expert Review Panels may seek assistance from U. T. System Administration or a U. T. health component.
(g) To permit the continued use of the talents, knowledge, and skills of a Health Care Worker whose practice is modified due to infection with HIV or HBV, the worker should:

1. be offered opportunities to continue appropriate patient care activities, if practicable;
2. receive career counseling and job retraining; or
3. to the extent reasonable and practicable, be counseled to enter an alternative curriculum, if the Health Care Worker is a student.

(h) A Health Care Worker whose practice is modified because of HBV infection may request periodic redetermination by the Component Expert Review Panel based upon change in the worker's HBsAg status due to resolution of infection or as a result of treatment.

(i) All Health Care Workers should be advised that if the Health Care Worker is a student.

3.06 Access To Facilities — A person with HIV or HBV infection shall not be denied access to any U. T. facility because of HIV or HBV infection.

3.07 Testing for HIV and HBV Infection —

(a) Mandatory Testing — No programs for mandatory HIV or HBV testing of employees, students, or patients will be undertaken without their consent unless authorized or required by law, court order, or as specified in this Subsection 3.07(a) or Subsection 3.07(g).

A patient may be required to undergo HIV testing if the patient is scheduled for a medical procedure that the Texas Board of Health has determined may expose health care personnel to AIDS or HIV infection if there is sufficient time to receive the test results before the procedure is conducted.

A person may be required to undergo HIV testing to screen blood, blood products, body fluids, organs, or tissues to determine suitability for donation.

(b) Voluntary Testing for HIV and Counseling — Component health institutions and student health centers should offer or refer students, faculty, and staff members for confidential or anonymous HIV counseling and testing services. All testing conducted by a component institution will include counseling before and after the test. Unless required by law, test results should be revealed to the person tested only when the opportunity is provided for immediate, individual, face-to-face counseling about:

1. the meaning of the test result;
2. the possible need for additional testing;
3. measures to prevent the transmission of HIV;
4. the availability of appropriate health care services, including mental health care, and appropriate social and support services in the geographic area of the person's residence;
5. the benefits of partner notification; and
6. the availability of partner notification programs. If a person with a positive HIV test result requests that her/his partner(s) be made aware of the possibility of exposure through a partner notification program, the post-test counselor will have the HIV-infected person sign a statement requesting assistance of a partner notification program. This statement will be made a permanent part of the person's medical record. A representative of the health institution or student health center will then request the local health department to contact the partner(s) identified by the HIV-infected person.

(c) Partner Notification — A health care professional who knows a patient is HIV positive and who has actual knowledge of possible transmission of the virus to a third party will notify a partner notification program established by TDH.

(d) Informed Consent for HIV Testing —

1. Unless otherwise authorized or required by law, no HIV test should be performed without informed consent of the person to be tested.

2. Consent will be written on a separate form, or the medical record will document that the test has been explained and consent has been obtained. The consent form will state that post-test counseling will be offered or the medical record will note that the patient has been informed that post-test counseling will be offered.

(e) Reporting of Test Results — HIV and HBV test results will be reported in compliance with all applicable statutory requirements, including the Communicable Disease Prevention and Control Act, Texas Health and Safety Code. §81.001.

(f) Conditions of HIV Testing of Employees at Institution's Expense — Employees will be informed that they may request HIV testing and counseling at the institution's expense, if:

1. The employee documents possible exposure to HIV while performing duties of employment; and
2. The employee was exposed to HIV in a manner that is capable of transmitting the infection as determined by guidelines developed
in accordance with statements of the Texas Department of Health (TDH) and Centers for Disease Control (CDC).

(g) Qualifying for Workers’ Compensation Benefits — State law requires that an employee who bases a workers’ compensation claim on a work-related exposure to HIV must provide a written statement of the date and circumstances of the exposure and document that, within ten (10) days after the exposure, the employee had a test result that indicated absence of HIV infection. An employee who may have been exposed to HIV while performing duties of employment may not be required to be tested, but refusal to be tested may jeopardize Workers’ Compensation benefits.

(h) Testing Following Potential Exposure to HIV or HBV — Each component institution should develop guidelines and protocols for employees and students who have been exposed to material that has a potential for transmitting HIV or HBV as a result of employment or educational assignments. Testing of employees or students exposed to such material should be done within ten (10) days after exposure and should be repeated after one (1) month. Testing for HIV also should be done after three (3) and six (6) months. These guidelines should follow TDH, U.S. Public Health Service, and CDC guidelines.

In cases of exposure of an employee or student to another individual’s (“Individual” in this paragraph) blood or body fluid, a component institution, at the institution’s expense, may test that Individual for HIV and HBV infection with or without the Individual’s consent, provided that the test is performed under approved institutional guidelines and procedures that provide criteria for testing and that respect the rights of the person being tested. This includes post-test counseling as specified in Section 3.07(b). If the test is done without the Individual’s consent, the guidelines must ensure that any identifying information concerning the Individual’s test will be destroyed as soon as the testing is complete and the person who may have been exposed is notified of the result. Test results will be reported in compliance with all applicable statutory requirements, as specified in Section 3.07(d).

A U.T. System law enforcement officer may request TDH or a health authority duly authorized pursuant to the Texas Health & Safety Code, Chapter 121, Local Public Health Reorganization Act, to order testing of another person who may have exposed the law enforcement officer to a reportable disease, including HIV infection. The request for such testing may be made only if the law enforcement officer experienced the exposure in the course of employment, if the law enforcement officer believes the exposure places the law enforcement officer at risk of the reportable disease, and the law enforcement officer presents to TDH or the health authority a sworn affidavit that delineates the reasons for the request.

3.08 Confidentiality of Records — Except where release is required or authorized by law, information concerning the HIV status of students, employees, or patients and any portion of a medical record will be kept confidential and will not be released without written consent. HIV status in personnel files and Workers’ Compensation files is to remain confidential and have the confidentiality status of medical records.

3.09 Education and Safety Precautions for Health Care Workers — Each component institution shall develop guidelines for Health Care Workers and students in the health professions concerning prevention of transmission of HIV and HBV and concerning Health Care Workers who have HIV and HBV infection. All Health Care Workers shall be provided instruction on universal infection control precautions. Each Health Care Worker who is involved in direct patient care should complete an educational course about HIV and HBV infection based on the model education program and workplace guidelines developed by the TDH and the guidelines of this policy.

3.10 Education —

(a) General Employee Educational Pamphlet — Component institutions should provide each employee an educational pamphlet about methods of transmission and prevention of HIV infection. The pamphlet will be the TDH educational pamphlet or a pamphlet based on the model developed by the TDH. The pamphlet should be provided to new employees on the first day of employment and to all employees annually.

(b) Information on Prevention Provided to Students —

(1) Each component institution should routinely offer students programs based on the model HIV education and prevention program developed by the TDH and tailored to the students’ cultural, educational, language, and developmental needs.

(2) Each student health center should provide information on prevention of HIV infection including:

(a) the value of abstinence and long-term mutual monogamy,

(b) information on the efficacy and use of condoms, and

(c) state laws relating to the transmission
of HIV and to conduct that may result in such transmission.

(3) The employee educational pamphlet will be available to students on request.

c. Guidelines for Laboratory Courses — Component institutions that offer laboratory courses requiring exposure to material that has potential for transmitting HIV or HBV should adopt safety guidelines for handling such material and distribute these guidelines to students and staff prior to their coming in contact with such material.

d. Education of Students Entering Health Professions — Those component institutions offering medical, dental, nursing, allied health, counseling, and social work degree programs should include within the program curricula information about:

- methods of transmission and methods of prevention of HIV and HBV infection, including universal infection control precautions;
- federal and state laws, rules, and regulations concerning HIV infection and AIDS; and
- the physical, emotional and psychological stress associated with the care of patients with terminal illnesses.

3.11 Unemployment Compensation Benefits — Each component institution will inform employees via employee and faculty guidelines or other appropriate methods that state law provides that an individual will be disqualified for unemployment compensation benefits:

- if the Texas Workforce Commission (TWC) finds that the employee left work voluntarily rather than provide services included within the course and scope of employment to an individual infected with a communicable disease, including HIV. This disqualification applies if the employer provided facilities, equipment, training, and supplies necessary to take reasonable precautions against infection; or

- if the TWC finds that the employee has been discharged from employment based on a refusal to provide services included within the course and scope of employment to an individual infected with a communicable disease, including HIV. This disqualification applies if the employer provided facilities, equipment, training, and supplies necessary to take reasonable precautions against infection.

3.12 Health Benefits — No student or employees will be denied benefits or provided reduced benefits under a health plan offered through The U. T. System on the basis of a positive HIV test result.

Needlestick Policy
The following procedures apply to students who have had significant contact from a contaminated needle or who have had contamination to an open wound or mucous membrane. These procedures apply whether or not the contamination was received on-site or off-site.

1. Significant Contact from:
   a. contaminated needle with puncture of skin surface
   b. any wound secondary to a contaminated object
   c. contamination of any open wound or mucous membrane by saliva, blood or any body fluid.

2. Insignificant Contact: exposure of unbroken skin by blood or saliva or other body fluids.

3. Procedure:
   a. Cleanse wound thoroughly with soap and water, or appropriate substance for tissue cleaning.
   b. Report incident to appropriate person for documentation. Complete the appropriate institutional incident report available at the Student Health Clinic. Send a copy of the incident report to the Student Health Clinic.
   c. Obtain patient’s (source of exposure) permission for blood sample to be drawn for Hepatitis B Surface Antigen (HBsAg), Hepatitis C Antibody (Anti-HCV), and Antibody to Human Immunodeficiency virus (Anti-HIV). Sample should be submitted to lab using appropriate paperwork and usual process for the facility (e.g., at University Hospital, Anti-HIV lab slip will need to be signed by a physician and the patient). Be certain you understand how this information can be retrieved.
   d. The student should have her/his blood drawn in the Student Health Clinic as soon as possible for HBsAg, Antibody to Hepatitis B Surface Antigen (Anti-HBs), Hepatitis C Antibody, and Anti-HIV. If the student has had a documented seroconversion following a Hepatitis B vaccination series, the HBsAg and Anti-HBs are not needed. If the incident occurs during working hours of the Student Health Clinic (Monday through Friday, 8:30 a.m. to 4:30 p.m.), coverage may be obtained from the Student Health Clinic. If the Student Health Clinic is closed, go to the University Hospital Emergency Room. If you are more than 30-45 minutes from the University Hospital Emergency Room, we recommend that you seek care from the nearest emergency room or health care facility. Report to the Student Health Clinic on the next (non-holiday) weekday.
   e. The primary purpose of the initial visit is to document the incident and offer prophylactic therapy for HIV exposure.
   f. If the exposure occurs outside the San Antonio
area, it is recommend that the student seek medical care from the nearest emergency room or health care facility.

g. If the source is Anti-HIV negative, further follow up is at the discretion of the student and the student's physician. If the patient to whom the student was exposed is shown to be Anti-HIV positive, repeat student testing at 6 weeks, 3, 6, and 12 months from initial exposure is recommended. If these are done in the Student Health Service as a result of student-related activity, there will be no charge for the follow-up testing. If the student does not utilize the Student Health Service, any charges will be the responsibility of the student.

h. Any student who seroconverts her/his Anti-HIV or HBsAg will be referred by the Director of the Student Health Service for appropriate follow-up care. Texas law mandates that results of the Anti-HIV test remain confidential; only the student, her/his physician and the Director of the Student Health Service will know the test results. The student’s physician or the Student Health Service Director may inform others of the student’s Anti-HIV test result only after counseling and obtaining written permission from the student.

i. If the patient to whom the student was exposed is shown to be HBsAg negative, no further Hepatitis B testing or therapy is needed. If the patient to whom the student was exposed is shown to be HBsAg positive but the student is also HBsAg positive or the student is Anti-HBs positive (either from prior disease or as a result of a Hepatitis B vaccination series), no further Hepatitis B testing or therapy is needed. If the patient to whom the student was exposed is shown to be HBsAg positive and the student is both HBsAg negative and Anti-HBs negative, the student should receive one dose of Hepatitis B Immune Globulin (.06 ml/kg intramuscularly) as soon as possible within 72 hours after exposure, and begin a Hepatitis B vaccination series within seven days. If the student has already received Hepatitis B vaccination but has a negative Anti-HBs test result, the student should receive HBIG and one dose of Hepatitis B vaccine.

j. In accidental exposure to blood from a patient with Hepatitis C, the student should have a HCV-PCR in 2–3 weeks post-exposure. The student should also follow-up for Hepatitis C serology at 6 weeks, 3 months, 6 months, and 1 year.

k. Prophylaxis has been utilized by needlestick recipients in an attempt to decrease their risk of development of HIV infection. Before the student utilizes this form of therapy, several points should be considered:

1. This risk of transmission of HIV per episode of percutaneous exposure to HIV-infected blood is, on the average, approximately 0.4%.

2. Anti-HIV seroconversion in a needlestick recipient has been documented despite use of prophylaxis.

3. Drugs used for HIV prophylaxis have multiple possible side effects. Please contact the Student Health Clinic prior to discontinuing any prophylaxis medications to ensure it is indeed the medication responsible for the symptoms.

l. If the student voluntarily elects to seek independent evaluation for any incidence related to a needlestick outside the confines of the Student Health Service, these costs will be the responsibility of the student.

**Guidelines for Needlestick and Body-Fluid Exposures for UTHSCSA Students**

It is recommended that you receive treatment within 2 hours of a needlestick or body-fluid exposure. You are encouraged to seek counseling at the Student Health Clinic so that your degree of exposure can be assessed and to assure appropriate data is collected on the source patient. With this necessary counseling, you will be in a better position to manage both your exposure and the related costs.

1. If you sustain an injury with a needle or other sharp object that has been exposed to a patient's body fluids, or if you splash a patient’s body fluid onto broken skin or mucous membranes, you may be at risk to contract infection with human immunodeficiency virus (HIV), the causative agent of AIDS.

2. If this occurs, treatment is available that can substantially reduce the risk of acquiring HIV infection. The U.S. Centers for Disease Control and Prevention recommends that for maximum protection, you should receive treatment within two hours of exposure.

3. The following are guidelines for what to do if you sustain a needlestick injury or body-fluid exposure.

**For Exposures During Normal Daytime**

**Working Hours in the San Antonio Area**

If the exposure occurs during working hours (8:30 a.m.–4:30 p.m.), care may be obtained from the UTHSCSA Student Health Clinic. However:

- To avoid delays in treatment, CALL before going to the Student Health Clinic to be sure the Student Health Clinic is open and that staff is present. Phone number is (210) 567-WELL (9355).
- If you are more than 30–45 minutes away from the Student Health Clinic, we recommend that you seek care from the nearest emergency room or health care facility.

*Students must be registered in credit courses for this policy to apply.*
• If the Student Health Clinic is closed, go to the University Hospital Emergency Room. Report to the Student Health Clinic on the next (non-holiday) weekday. Contact the ER triage nurse at 358-2488 to expedite your care.

• If you are more than 30–45 minutes away from the University Hospital Emergency Room, we recommend that you seek care from the nearest emergency room or health care facility. Report to the Student Health Clinic on the next (non-holiday) weekday.

For Exposures After Normal Working Hours in the San Antonio Area
If the exposure occurs after working hours, care may be obtained from the University Hospital Emergency Room. Contact the ER triage nurse at 358-2488 to expedite your care. However:

• If you are more than 30–45 minutes away from the University Hospital Emergency Room, we recommend that you seek care from the nearest emergency room or health care facility. Report to the Student Health Clinic on the next (non-holiday) weekday following the exposure.

• If health care providers at another facility have questions about appropriate care, they can call the national HIV Post-Exposure Prophylaxis Hot-Line for Clinicians at 1-888-HIV-4911, which is open 24 hours per day.

For Exposures Outside the San Antonio Area
If the exposure occurs outside the San Antonio area, it is recommend that the student seek medical care from the nearest emergency room or health care facility. In Harlingen, during business hours, call 365-8752 for instructions. After hours, call 389-5004, VBMC Emergency Triage. For a medical emergency call 911.

• If health care providers at the facility have questions about appropriate care, they can call the national HIV Post-Exposure Prophylaxis Hotline for Clinicians at 1-888-HIV-4911, which is open 24 hours per day.

• Contact the Student Health Clinic by phone at (210) 567-WELL (9355) on the next (non-holiday) weekday.

4. Incident Reports. Regardless of location, complete an incident report in the facility in which the incident occurred. The report should include information identifying the person whose body fluid was the source of exposure and a contact person at the institution for follow-up. Bring a copy of the incident report to the Student Health Clinic.

5. Cost. If the above protocol is followed, cost of medical services received for needlestick or body-fluid exposure will be reimbursed by UTHSCSA, up to $500 per case. The reimbursement shall be processed by the Student Health Clinic after the student submits a medical insurance claim receipt for the same case with a completed incident report.

6. In order to be eligible to receive the Needlestick Policy benefit, each HSC student must comply with the following requirements:
   a. Each student must consult the Student Health Clinic at (210) 567-WELL (9355) immediately.
   b. Each student must seek reimbursement from the student’s private insurance company first. The student must initiate the request for reimbursement from UTHSCSA within 30 days from the date the student’s insurance claim is approved/denied.
   c. Each student must provide the Student Health Clinic with a written report of the incident prior to making any request for reimbursement which would include time, date, and location of incident. The incident must relate to your clinical duties as a registered student at UTHSCSA.

7. These guidelines are subject to revision and modification by the Student Health Advisory Committee and the chief student affairs officer of UTHSCSA and supersedes previous needlestick policies.

Recommendations of Student Health Advisory Committee Regarding Post Exposure Prophylaxis for Needlestick or Percutaneous Fluid Exposure

1. For required courses, students be sent only to locations where the individual schools (medical, dental, nursing, allied health, and graduate school) have confirmed that resources are available to provide care in the event a student sustains an infectious exposure. Post exposure prophylaxis (PEP) for HIV, as recommended by the current CDC guidelines, should consist of medical counseling, lab work, and antiviral medications within the recommended time frame. These sites would need to be periodically reviewed to confirm that the appropriate policies and procedures are in effect, possibly as part of the annual affiliation agreements. Departments will confirm that appropriate policies and procedures are in effect before students are sent to remote locations. This information will also be included in affiliation agreements.

For elective rotations in under served areas, students will be notified that PEP may not be available as recommended by CDC guidelines. When possible, students will be given information as to the nearest facility where this level of care can be obtained. Administration may consider asking legal counsel to develop an informed consent/release form to be signed by students acknowledging their understanding that PEP may not be immediately available to them on a chosen elective.

2. All UTHSCSA students will be provided adequate education regarding universal precautions for infectious exposure and PEP procedures prior to any clinical rotations.
Course directors/faculty must demonstrate that teaching and clinical application of the correct use of universal precautions occurs on clinical rotations.

3. Provide educational support to remote clinical sites, primarily in South Texas, to help bring their policies and procedures up to date regarding treatment of infectious exposures. UTHSCSA will cooperate in providing information to assist in making the needed drug therapy available at these remote sites.

Prior to the placement of a student in a preceptorship, the School of enrollment will by letter of agreement with the preceptor develop information regarding post exposure prophylaxis, including the nearest facility where this level of care can be obtained. Students will be informed by letter of this same information. The School will inform the administrators of the preceptorship programs of the need for this information prior to student placement with a preceptor and will work with the administrators of the preceptorship program to identify the location of the nearest facility to each matched preceptor where the PEP can be obtained.

4. Continuation of current financial compensation for our students who follow our needlestick protocol and are treated after an injury in a remote location.

Students will follow procedures as outlined in "needlestick policy," which is given to each student at registration and available on the Web. Reimbursement will be for covered expenses.
Alcohol, Drug, and Chemical Abuse

In compliance with the Federal Safe and Drug-Free Schools and Communities Act Amendment of 1989 and the Drug-Free Workplace Act of 1988, UTHSCSA's policies with regard to the abuse and/or distribution of alcohol, drugs, and chemicals by faculty, staff, and students are published in the Handbook of Operating Procedures (HOP) and in this Catalog, see specific references below.

Code of Ethics and Standards of Conduct—HOP, Chapter 2, Policy 2.4.1
Policy on Alcohol, Drug, and Chemical Matters—HOP, Chapter 8, Policy 8.2.1
Policy on Alcohol, Drug, and Chemical Abuse—below

UTHSCSA Policy on Alcohol, Drug, and Chemical Abuse

Standards of Conduct

1. The unlawful manufacture, sale, distribution, dispensing, possession, or use of alcoholic beverages, drugs, or chemicals on any property and in buildings and facilities under the control of the Health Science Center is expressly prohibited.

2. Alcoholic beverages on Health Science Center property are permissible only by prior written Presidential approval for specific events.

3. These standards of conduct apply to ALL persons connected with the institution either as employees or students.

a. Employees: The unauthorized purchase, manufacture, distribution, possession, sale, storage or use of alcohol, illegal drugs or controlled substances while on duty, while in or on premises or property owned or controlled by the Health Science Center premises is prohibited by University policy and will result in a penalty of disciplinary probation, demotion, suspension without pay, or termination depending upon the circumstances.

Any employee who is found guilty (including a plea of no contest) or has a sentence, fine, or other penalty imposed by a court of competent jurisdiction under a criminal statute for an offense involving a controlled substance that occurred in or on premises controlled by The University shall report such action to the Assistant Vice President of Human Resources within five (5) days.

b. Students: The Rules and Regulations of the Board of Regents of The University of Texas System provides for disciplinary action against any student who engages in conduct that is prohibited by state, federal, or local law. This includes those laws prohibiting the use, possession, or distribution of drugs and alcohol. A student who is accused of such prohibited conduct is subject to the Procedures and Regulations Governing Student Conduct and Discipline in this Catalog (pp. 97–102).

4. Violations of this Policy.

a. Employees: An employee who unlawfully manufactures, sells, distributes, possesses or uses a controlled substance in or on premises or property owned or controlled by the University, regardless of whether such activity results in the imposition of a penalty under a criminal statute, will be subject to appropriate disciplinary action, including termination, or will be required to participate satisfactorily in an approved drug assistance or rehabilitation program or both.

b. Students: The Procedures and Regulations Governing Student Conduct and Discipline in this Catalog (pp. 97–102) define penalties that may be assessed to a student when an individual has violated the Standards of Conduct.

Health Risks of Alcohol, Drugs, and Chemicals

Alcohol. Health hazards associated with the excessive use of alcohol or with alcohol dependency include dramatic behavioral changes, retardation of motor skills, and impairment of reasoning and rational thinking. These factors result in a higher incidence of injury and accidental death for such persons than for nonusers of alcohol. Nutrition also suffers and vitamin and mineral deficiencies are frequent. Prolonged alcohol abuse causes bleeding from the intestinal tract, damage to nerves and the brain, psychotic behavior, loss of memory and coordination, damage to the heart, testes, ovaries, and muscles. Cancer is the second leading cause of death in alcoholics and is ten (10) times more frequent than in non-alcoholics. Sudden withdrawal of alcohol from persons dependent on it may cause serious physical withdrawal symptoms.

Drugs and Chemicals. The use of illicit drugs and chemicals may cause the same general type of physiological and mental changes seen with alcohol, though frequently those changes are more severe and more sudden. Death or coma resulting from overdose of drugs and chemicals is more frequent than from alcohol, but unlike alcohol, abstinence can lead to reversal of most physical problems associated with drug use. There are also health risks resulting from intravenous drug use. In addition to the adverse effects associated with the use of a specific drug, intravenous drug
users who use unsterilized needles or who share needles with other drug users can develop AIDS, hepatitis, tetanus (lock jaw), and infections in the heart. Permanent brain damage may also result. Chemicals, which include solvent inhalants and aromatic hydrocarbons, such as glue, lacquers, and plastic cement, also present health risks. Fumes from these substances cause symptoms similar to alcohol. Hallucinations and permanent brain damage may occur.

**Assistance for Students and Employees**

**Students.** The Counseling Service in the Office of Student Services provides evaluation, referral, consultation, and education. All service and records are confidential. Counseling Service records are professional health records which are confidential. Counseling Service records are not a part of the student’s university record. Students may request to review the record. Counseling Service records or summaries of service are provided only with the written authorization of the student. Seeking consultation or receiving treatment for alcohol or drug abuse is not an impediment to making progress in a student’s academic program.

**Employees.** The Department of Psychiatry maintains a Substance Abuse Treatment Clinic, which is located on the third floor of the University Clinic. This Clinic provides comprehensive evaluation and treatment for persons who have alcohol, drug, and other chemical dependency problems. Many private community organizations also are involved in rehabilitation programs for alcohol and drug impairment.

Employees and students of the Health Science Center in need of assistance with an alcohol or drug abuse problem may take advantage of professional referral programs.

**Alcohol on Campus**

The use of intoxicating beverages is prohibited in classroom buildings, laboratories, auditoriums, library buildings, faculty and administrative offices, intramural athletic facilities, and other public campus areas.

With the prior consent of the President, the foregoing provisions may be waived with respect to a specific affair which is sponsored by the University. However, with respect to the possession and consumption of alcoholic beverages, state law will be strictly enforced at all times on property controlled by The University of Texas System and its component institutions. (See “Alcohol Policy for Student Organizations.”)

**Controlled Substances on Campus**

The Health Science Center will impose at least a minimum disciplinary penalty of suspension for a specified period of time or suspension of rights and privileges, or both, for conduct related to the use, possession, or distribution of drugs that are prohibited by state, federal, or local law. Other penalties that may be imposed for conduct related to the unlawful use, possession, or distribution of drugs or alcohol include disciplinary probation, payment for damages to or misappropriation of property, suspension of rights and privileges, suspension for a specified period of time, expulsion, or such other penalty as may be deemed appropriate under the circumstances.

Students can avail themselves of professional referral programs. The Counseling Service in the Office of Student Services, along with the various deans’ offices, provide support measures for impaired health professions students. Other private organizations involved in rehabilitation programs for impaired health professional students can be identified upon request.

The UTHSCSA Student Government Association (SGA) supports the University policy on alcohol, drug, and chemical abuse, as outlined in this *Catalog*, through the use of the following procedures at SGA functions: (1) providing designated drivers; (2) utilizing designated servers; (3) providing nonalcoholic beverages; (4) providing food; and (5) requiring picture identification to insure compliance with the Texas Alcoholic Beverage Commission policies. (See *Procedures and Regulations Governing Student Conduct and Discipline*.)
Immunization Requirements

Prior to Registration, all students are required to have completed the immunizations outlined below.

**Hepatitis B**
All Allied Health, Dental, Medical, Nursing, and certain Graduate students, specifically those students having direct patient care or those students who come in contact with human biological fluids/tissue, are required to complete the series of three Hepatitis B immunizations or show proof of immunity prior to the beginning of clinical activities.

**Tuberculosis**
A skin test for tuberculosis is required of all students within 12 months prior to registration. All students are required to be tested on a yearly basis. Students who have not been tested within the last year are restricted from registration. Students testing positive for tuberculosis are required to undergo further medical evaluation which may include retesting, chest X-ray, liver function tests, anti-tuberculin drug therapy, and/or other tests as indicated.

**Tetanus-Diphtheria**
Proof of a tetanus-diphtheria toxoid immunization within the past 10 years is required prior to registration.

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

**Measles (Rubeola)**
Prior to registration, all students must submit one of the following:
1) Signed physician's record documenting two measles immunizations administered on or after the student's first birthday and at least 30 days apart, or
2) Laboratory report of immune measles antibody titer (IgG).

**Mumps**
Prior to registration, all students must submit one of the following:
1) Signed physician's record documenting mumps immunization on or after the student's first birthday, or
2) Laboratory report of immune mumps antibody titer (IgG).

**Rubella**
Prior to registration, all students must submit one of the following:
1) Signed physician's record documenting rubella immunization on or after the student's first birthday, or
2) Laboratory report of immune measles antibody titer (IgG).

**Chicken Pox (Varicella)**
Prior to registration, all students must submit one of the following:
1) Signed physician's record documenting two chicken pox immunizations administered on or after the student's first birthday and at least 30 days apart, or
2) Laboratory report of immune chicken pox antibody titer (IgG). Students who arrive on campus without documentation of immunity will be required to receive the varicella vaccine prior to starting school. The student is responsible for payment of the vaccine and follow-up charges.

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, other than Hepatitis B, will be the responsibility of the student and/or dependent.
TB Screening, Prevention, and Management

UTHSCSA Tuberculosis Screening Program for Students
The Texas Department of Health recommends yearly tuberculosis screening for all health care personnel. Some of the students at The University of Texas Health Science Center at San Antonio are at high risk for tuberculosis exposure. With the increasing rate in the country of TB cases, the Student Health Clinic in conjunction with the Student Health Advisory Committee and the Executive Board of the University, has decided to take an active role in protecting our students. The policy is as follows:

1. All students, including those with a history of Bacillus of Calmette and Guerin (BCG) vaccination, will have a PPD [purified protein derivative] test done within one year prior to initial registration as a student at UTHSCSA unless a previously positive reaction, completion of adequate prevention therapy, or adequate therapy for active disease can be documented. Anyone not tested prior to registration will have a PPD placed by the Student Health Clinic at the time of the initial registration. If the student has a history of a previous positive PPD, a yearly chest X-ray may be performed after medical evaluation.

2. All students will be screened on a yearly basis.

3. Any student can come to the Student Health Clinic to be screened for TB during regular clinic hours, except Thursdays, Monday through Friday.

4. Students who have a PPD test done at another institution within the prior 12 months will need to show proof of test results to the Student Health Clinic.

5. A student with a previous positive skin test will not be retested. This student will be examined yearly and given the option of a yearly chest X-ray at the student's expense. If the student has no signs or symptoms of tuberculosis, a chest X-ray will be optional.

6. The cost of TB screening, as with immunization, is at the student's expense.

7. If students have not been TB tested within the last year, they WILL NOT be allowed to register. The Student Health Clinic places the student’s registration on “hold” until he/she is in compliance with the policy.

8. Documentation of a negative or positive test is available to the student who returns to the Student Health Clinic within 72 hours of the test to have the results read by the clinic nurses. This documentation can be used as evidence of testing for clinical rotations.

Compliance and Academic Enrollment
Students who fail to comply with the Tuberculosis and Immunization Policies will not be permitted to register for the upcoming year until they are in compliance.

The Health Science Center’s Role
There has been an increase in the number of tuberculosis (TB) cases in Texas and the United States since 1989. Although the increase in Texas appears to be more in the areas of The Valley and Houston, the Bexar County area is taking a proactive role in the screening and prevention of tuberculosis. The University of Texas Health Science Center at San Antonio has initiated mandatory yearly tuberculosis screening for all students involved in any form of patient care. This screening is in compliance with the recommendations by the Centers for Disease Control (CDC) and the Bexar County Hospital District for the screening and prevention of tuberculosis infection in high-risk populations.

Screening for Tuberculosis Infection
Tuberculosis transmission is a recognized risk in health care settings. The greatest risk for health care workers is exposure to patients with unsuspected tuberculosis. Screening is by Mantoux technique (intradermal injection of purified protein derivative [PPD]). This test is offered on a yearly basis by the Student Health Clinic and on an as-needed basis for any student who might be exposed to an infectious case of tuberculosis, at the student’s expense. All students are required on admission to the University to have a TB skin test. If the student has a history of previous positive PPD, a medical evaluation will be required at the Student Health Clinic. This evaluation may include retesting, a CXR, liver function tests, antituberculosis drug therapy, and/or other tests as indicated.

UTHSCSA Policy on Management of Students with Positive TB Skin Tests
Students may have their skin tests evaluated in the Student Health Clinic at 48 and/or 72 hours after injection of the PPD, and they can receive documentation of their test results. Documentation of a negative result can be obtained only by having the skin test result evaluated in the Student Health Clinic within 72 hours after the test. All students with any swelling or redness of the site must come to the clinic within 72 hours for further evaluation. These students are medically evaluated, have a chest X-ray performed, and have blood drawn for liver function testing. If the student is without evidence of active tuberculosis, the chest X-ray is determined to be negative, and the liver test is normal, the student may be counseled at
the Student Health Clinic on prophylactic treatment (at the student’s expense), or referred to the City Chest Clinic for further evaluation.

The student should start on prophylactic medication as soon as possible. The usual prophylactic regimen is isoniazid. The recommended duration of treatment is a minimum of six months. Because of the hepato-toxicity of isoniazid, students will be monitored with liver function testing on a monthly basis. The student who has a positive skin test, a negative chest X-ray, and a normal exam, and who is otherwise healthy and receiving preventive treatment for tuberculosis infection, can return to all aspects of clinical care. The student who cannot take or does not accept a complete course of preventive therapy will have her/his work situation evaluated by the Associate/Assistant Dean for Student Affairs of that student’s school to determine whether reassignment is indicated.

All students with a positive skin test or an active case of tuberculosis should be encouraged to have HIV testing.

Management of Students with Active Tuberculosis

Students with current pulmonary or laryngeal tuberculosis pose a risk to patients and other personnel while they are infectious. They will be excluded from school until adequate treatment is instituted for at least three weeks, cough is resolved, and sputum is free of bacilli on three consecutive smears. Students with current tuberculosis at sites other than the lung or larynx usually do not need to be excluded from school, if concurrent pulmonary tuberculosis has been ruled out. Students who discontinue treatment before the recommended course of therapy has been completed will not be allowed to have patient contact until treatment is resumed, an adequate response to therapy is documented, and they have negative sputum smears on three consecutive days.

Confidentiality and TB Screening Results

The Health Science Center requires every TB-infected student and every student with a recent skin-test conversion to report her/his situation to the Associate/Assistant Dean for Student Affairs of the student’s school within one week of diagnosis.

Tuberculosis infection will be reported in compliance with all applicable statutory requirements, including the Communicable Disease Prevention and Control Act of the Texas Health and Safety Code.

Data on the occurrence of tuberculosis among students and skin-test conversions among students will be collected and analyzed by the Student Health Clinic to determine the risk of tuberculosis transmission in the facility and to evaluate the effectiveness of infection-control and screening practices. The incidence of conversion of skin testing of students is important in determining the risk of acquiring new infection to all health care personnel. When it is in the interest of prevention of exposure of other health care providers (and/or patients), the Student Health Clinic Director may discuss the recent skin test conversion or TB infection of any student with the Associate/Assistant Dean for Student Affairs of that student’s school.

Students who fail to comply with either treatment of active disease or preventive treatment will be reported by the Student Health Clinic Director to the Associate/Assistant Dean for Student Affairs of the student’s school.
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Dental School

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 service, faculty and staff, and infrastructure.

All programs in the Dental School are accredited by the Commission on Dental Accreditation of the American Dental Association, a specialized accrediting body recognized by the U.S. Department of Education. The Commission’s last site visit occurred in February, 2005, resulting in “approval” status. The Commission may be contacted at 1-800-621-8098, or at 211 East Chicago Avenue, Chicago, IL 60611.

Curriculum
The Dental School will graduate a “competent” dentist — one who has the knowledge, skills, and values to make the transition from faculty supervision to the independent practice of General Dentistry.

Overview of the progress toward competency assessment over 4 years
Competency development is a 4-year process with knowledge, skills, and values being given varying emphasis in each Dental School course or rotation. In each course, students are evaluated for specific outcomes that are instrumental to competency development and the results of the evaluation are tied to successful completion of all components of the course. If students are not successful in completing a course, they have not demonstrated the level of progress toward competency required to advance to the next level and they cannot be promoted to the next year or be certified for graduation according to our Standards for Promotion and Graduation of Dental Students.

Overview of the 4-year curriculum
• Year 1 is a combination of traditional foundation sciences, clinical foundations for diagnosis, prevention, periodontics, and initial development of fine-motor skills. Students are introduced to patient interactions.

  Summer 1: The summer course between year 2 and 3 will allow students to demonstrate that they can make the transition from laboratory and preclinical exercises to direct patient care under supervision of the faculty.

• Year 2 has the most hours devoted to skills development in preclinical labs and is augmented with didactic courses and patient interaction. Specific preclinical skills examinations must be successfully completed to determine if the student is certified to move to the next level.

  Summer 2: The summer between years 3 and 4 allows students to enrich their education with electives and selectives. These also continue into the 4th year.

• Year 4 is a continuation of clinical patient care. Students are expected to demonstrate competency as they complete their didactic and clinical courses (that is, as the student makes the transition from faculty supervision to the independent practice of general dentistry). This transition is primarily done within the General Dentistry Clinic course GEND 8077. During Year 4, students continue to demonstrate their abilities to treat patients with various complexities and treatment needs. The goal of the General Dentistry Department is to ensure that each student develops and maintains clinic competency.

To receive a passing grade in General Dentistry Clinic GEND 8077, students must successfully complete the two major components of the course. Elements of Component One consist of: 1) appropriately providing care for assigned patients, 2) acceptable clinic utilization, 3) a passing grade for the summative monthly evaluations, 4) successfully completing all assigned rotations, and 5) a passing grade for the Summary Student Professionalism Evaluations. Component Two: Students must demonstrate a minimal amount of clinical productivity as measured by the total points accumulated throughout the year for procedures performed. A scale for total points earned establishes the minimal production to pass and to earn higher grades. The grades for the lowest component is the maximum grade earned for GEND 8077. All independent clinical examinations have a remediation policy should a failure occur.

Students cannot be certified for graduation if they have an “F” or incomplete in any course at the end of the senior year, or if the GPG faculty do not certify that the student has adequately demonstrated competency.

Admission and Application
Information about admission requirements is detailed in the Applicant Viewbook of the Dental School (http://student-services.uthscsa.edu/publications/dental2.html). 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 in English, biology, physics, and chemistry by the end of the spring semester before entering Dental School, and with a grade no lower than C. 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-geninfo.html](http://dental.uthscsa.edu/admissions/dds-geninfo.html). All applicants who are legal residents of Texas must apply through the Texas Medical and Dental Application Service. Applications are accomplished online at [http://www.utsystem.edu/tmdas].

**Student Background Check Policy**

**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 to 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:

A. Doctor of Dental Surgery Students
B. Advanced Dental Education Students

**II. Policy**

Effective immediately, applicants must submit to and satisfactorily complete a background check review as a condition to admission into all programs designated as requiring a background check. An offer of admission will not be final until the completion of the background check(s) with results is deemed favorable. Admission may be denied or rescinded based on a review of the background check.

Additionally, students who are currently enrolled and who do not have a valid background check must submit to and satisfactorily complete a background check review as a condition to enrolling or participating in education experiences at affiliated sites that require a background check.

Students who refuse to submit to a background check or do not pass the background check review may be dismissed from the program.

Applicants or students who are denied admission to or are dismissed may seek admission into another educational program that does not have a clinical component requirement in its curriculum.

**III. Rationale**

A. 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.

B. Clinical facilities are increasingly required by accreditation agencies, such as Joint Commission on Accreditation of Healthcare Organization (JCAHO), 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.

C. 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 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.

D. The Dental School is obligated to meet the contractual requirements contained in affiliation agreements between the university and the various healthcare facilities.

**IV. Background Check Report**

A. **Obtaining a Background Check Report.** The Dental School will designate approved company(ies) to conduct the 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.

B. **Scope.** Background checks include the following and cover the past seven years:

- 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
- Social Security Number verification
- Violent Sexual Offender and Predator Registry search
- Office of the Inspector General (OIG) List of Excluded Individuals/Entities
- General Services Administration (GSA) List of Parties Excluded from Federal Programs
C. 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 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
A. Applicants
1. Applicants who are invited to an interview must supplement their application package by requesting and providing the required background check report.
2. The background check report will be submitted to the admissions committee for its review. If the report contains negative findings, the admissions committee may request that the applicant submit additional information relating to the negative finding, such as a written explanation, court documents and police reports. The admissions committee, 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 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.
3. Admissions decisions are final and may not be appealed.

B. Current Students
1. For students who did not have a background check review at the time of their admission into the educational program, students must complete the background check review prior to commencement of an assignment at a health care facility.
2. Background check report will be submitted to the Admissions Committee for its review (or, for Advanced Education, to the Program Director). If the report does not contain any negative findings as determined by the committee, the student will be allowed to participate in clinical rotations. If the report contains negative findings, the Admissions Committee (Advanced Ed Program Director) may request that the student submit additional information relating to the negative finding, such as a written explanation, court documents and police reports. The Admissions Committee (or Advanced Ed Program Director) will review all information available to it and determine whether the student should be permitted to participate in clinical rotations or be dismissed from the program.
3. If the Admissions Committee (or Advanced Ed Program Director) determines that dismissal from the program is warranted, a student may appeal that decision in accordance with the university’s grievance procedure for academic matters.

C. 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.

D. 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(s) section(s) only if space is available.

VI. Confidentiality and Recordkeeping
A. 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).

B. Students. Background check reports and other submitted information of students will be maintained in the Dental School in accordance with the university’s record retention policy for student records.

C. Applicants Denied Admission. Background check reports and other submitted information of ap-
plicants denied admission into the program will be maintained in accordance with the university’s record retention policy.

VII. Other Provisions
A. The Dental School shall inform students who have negative findings in their background check report and are nonetheless permitted to enroll that the Dental School'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.
B. A 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 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.
C. Falsification of information, including omission of relevant information, may result in denial of admission or dismissal from the educational program.
D. Criminal activity that occurs while a student is in attendance at the university must be reported immediately by the student to the Dental School 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.

Attendance, Leave of Absence, Readmission
Class Attendance
Attendance at all regularly scheduled classes, laboratories, and clinical periods is expected. Consequences for missing these are determined by the academic department responsible for that particular portion of the curriculum. The policy regarding attendance, and will be announced at the beginning of each course.

It is the responsibility of the student to inform the course director in advance, and to arrange make-up work which is missed.

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 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 April of the next academic year. Students reenrolling as juniors or seniors will need to demonstrate the level of skills and knowledge consistent with the expectations for other students at the same level. (For purposes of requests for a leave of absence, a student is considered to be in good academic standing if he/she has not received a final grade of F in any course completed during the current academic year.)

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 policies contained in this Catalog concerning attendance, leave of absence, and readmission are those in effect at the time of publication but are subject to change. Students are responsible for inquiring about changes each year.

Reporting Absenteeism
When a student must be absent from the Dental School, he/she must contact the Office of Student Affairs at 567-3752. The office will maintain a roster of absentees and the reported reasons for absence. Course Directors for these students will be notified.

In cases of absence during an assigned rotation, students 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, sophomore and junior students must notify the Office of Clinical Affairs (567-3265). Senior students must notify the Office of Clinical Affairs and the Department of General Practice (567-3450).

Students are responsible for contacting Course Directors upon their return to school to schedule required makeup work.

Faculty Advisors
Members of the faculty will be assigned as advisors to dental students and will be available for counseling. Students are urged to become well acquainted with their advisors. While
the faculty members are assigned to assist students, the students must be mindful of their own responsibility for seeking help when it is needed and keeping advisors informed of problems they may be encountering.

The Dental School's Faculty Advisor Program is designed to enhance the relationship between faculty and students and provide the opportunity for faculty to give leadership and guidance to students. A faculty advisor is assigned to one to three students from each entering class and remains as the advisor throughout the freshman and sophomore years. Clinical advisors are assigned for the junior and senior years.

In addition to serving as a role model, the faculty advisor provides for development of appropriate ideals and goals to be incorporated into the student's professional personality. Faculty advisors meet with advisees, as needed.

Faculty advisors can be helpful to students who are having difficulties with course material or interpersonal problems. Advisors also serve as advocates for students, interpreting for the administration and faculty the impact of rules and procedures on students. They monitor academic progress and provide support and give guidance to students.

It is the student's responsibility to attend meetings and seek out the faculty advisor when he/she encounters difficulties. A student may be reassigned to a different advisor if, by mutual agreement, the change is required.

Grades
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. Noncognitive factors such as performance under stress, integrity, initiative, interpersonal relations, and personal and professional characteristics also will be considered.

A passing grade will not be awarded to a student whose performance in noncognitive areas is unacceptable. A copy of these standards will be given to students at the beginning of the course and made available for review in the departmental office and the offices of the Associate Deans for Student and Academic Affairs.

Final Grades
A final grade shall be reported after completion of a course as:

- **A** = Excellent
- **B** = Good
- **C** = Satisfactory
- **D** = Poor
- **F** = Failure in a graded course or failure to successfully complete an ungraded course.
- **CR** = Satisfactory completion of a required course for which no letter grade is given.

**Other Symbols Used on Transcripts:**

- **EX** = Exemption
- **I** = Incomplete. Not a final grade.
- **Q** = Course dropped with no penalty
- **WP** = Withdrew passing
- **WF** = Withdrew failing

**Credit Hours and Grade Point Average**
One semester hour credit is given for each:

- 15–18 clock hours of lecture or conference
- 30–36 clock hours of clinic or technique laboratory
- 45–60 clock hours of non-technique laboratory

Grade point average is calculated in the standard manner with the following weight assigned to grades:

- **A** = 4
- **B** = 3
- **C** = 2
- **D** = 1
- **F** = 0
- **CR** = Not used in calculation of GPA.

**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 in 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 within seven days of the departmental decision. If the Dean agrees to review the matter, he/she will review the case based on the published limitations allowing the original grievance and rendering an appropriate decision. This Dental School policy supersedes any other grievance policies, and decisions made in this process are final.

**Policies on Examinations**

**Faculty Responsibilities**

1. It is the responsibility of the teaching faculty to administer examinations in such a manner that student
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. (Two faculty proctors are a minimum; 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 during examinations to the Course Director. If misconduct 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 UTHSCSA.

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.

### Student Responsibilities

1. It is the responsibility of every dental 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. 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 which detract from a quiet testing environment, such as use of radios, tape players, televisions, loud conversation, etc.

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.

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*Group A - all basic science and dental didactic courses
** Group B - all preclinical laboratory and clinic courses
Requests to Change 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. Requests for changes in the schedule of examinations may be initiated by students or the Course Director. All requests should be submitted to the Office of the Associate Dean for Academic Affairs.

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:

- A written reason for the move which must be compelling and academically sound.
- A written statement from the Course Director stating he/she is in agreement with the change.
- The results (number of yes/no votes) of a secret ballot taken from all members of the class.

The Associate Dean for Academic Affairs will review the request and approve it if the following requirements are met:

- The request has been submitted within the guidelines.
- The reason for the move is valid.
- The Course Director is in agreement with the move.
- 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.
- An appropriate classroom is available at the proposed time.

Progress Reports

Reporting of Progress and Final Grades

- Progress reports are submitted to the Associate Dean for Academic Affairs at midyear for each student enrolled in a course which extends into the next semester. Progress is reported as:
  
  S = Satisfactory
  
  U = Unsatisfactory

  The course director or task force administering a course may report unsatisfactory progress to the student at any time throughout the duration of the course.

- Final grades are submitted to the Registrar and the Associate Dean for Academic Affairs for each student enrolled in a course when the course has been completed.

Academic Warning

At midyear, a student receives notification from the Associate Dean for Academic Affairs or the course director for one or both of the following reasons:

- Receiving an unsatisfactory report (U) for any course in progress.
- Achieving a grade point average less than 2.0 for either Group A* or Group B** courses completed during the fall semester.

This notification serves as an academic warning.

Academic Probation

A student receiving a final grade of F in a course at any time during the academic year is placed on academic probation.

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.

Academic Probation Criteria

A student will be placed on academic probation, which prohibits a student from graduation or promotion to the next academic year, if he/she meets one or more of the following conditions:

- Receipt of a final F grade in any course at any time during the academic year.
- For DS1, 2, and 3 students, 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. (See “Dismissal.”)
- For DS4 students, receipt of an overall GPA less than 2.0, unless the student is dismissed. (See “Dismissal.”)
- Failure to pass National Board Dental Examinations, Part I by the end of the junior year.
- Failure to pass National Board Dental Examinations, Part II by the end of the senior year.

A student will remain on academic probation until all academic deficiencies are corrected, unless the student is dismissed.

Removal from Academic Probation

To provide an opportunity for the student to correct academic deficiencies, such as F grades and/or a GPA less than 2.0 in Group A and/or Group B courses of the year’s curriculum, the Academic Performance Committee may recommend remediation of specific courses or repetition of the year in its entirety.

To provide an opportunity for the student to correct National Board deficiencies, the Academic Performance Committee will recommend completion of an altered curriculum designed for skills maintenance, preparation for retesting, and achievement of a passing grade for the National Board Dental Examinations. All recommendations of the Academic Performance Committee require the approval of the Dean.

A student will be removed from Academic Probation status by the Academic Performance Committee when all academic deficiencies have been corrected. This action
will make the student eligible for promotion to the next academic year.

**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:

- **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.
  - A course director will not initiate a remediation program for a student unless remediation has been recommended by the Academic Performance Committee and approved by the Dean.
  - The remediation program will be designed by the Course Director and approved by the Curriculum Management Committee.
  - Remediation for seniors may be scheduled during the academic year, but all other remediation will be scheduled during a four-week period in June/July.

- **Repetition** of the academic year in its entirety.
  - If remediation is not recommended by the Academic Performance Committee, the student must repeat the academic year in its entirety.

- **There is no remediation for the Junior Patient Management course or for GEND 8077.** Failure of these courses will result in repetition of the academic year in its entirety or dismissal.

**Correction of a Grade Point Deficiency**

A student receiving a GPA below 2.0 in Group A and/or Group B courses of a year's curriculum will be considered for dismissal.

However, after reviewing the student's entire academic record and any extenuating circumstances, the Academic Performance Committee may recommend one of the following actions in lieu of dismissal:

- **Remediation** of one or more courses designated by the Academic Performance Committee which will help raise the deficient GPA to 2.0 or above. Since failure to successfully remediate a deficient GPA places a 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. (See “Remediation.”)
  - The remediation program will be designed by the Course Director and approved by the Curriculum Management Committee.
  - Remediation for seniors may be scheduled during the academic year, but all other remediation will occur in a four-week period during the months of June and July.

- **Repetition** of the academic year in its entirety.
  - If remediation is not recommended by the Academic Performance Committee, the student must repeat the academic year in its entirety.

**National Board Deficiency**

Sophomore students are expected to challenge Part I of the National Boards between the end of the spring semester and the beginning of the fall semester of their junior year (mid-May to mid-July).

Senior students are expected to challenge Part 2 of the National Boards in December of the Senior Year.

In an effort to help a student correct a National Board deficiency, the Academic Performance Committee will recommend completion of an altered curriculum which includes requirements for skills maintenance, preparation for retesting, and achievement of a passing grade for the National Board Dental Examinations.

- The altered curriculum will be developed by the Associate Dean for Academic Affairs and approved by the Altered Curriculum Committee.
- Eligibility for promotion or graduation will be restored upon satisfactory completion of all requirements of the altered curriculum.
- 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.

Students may retake the NBII examination no sooner than 90 days from the last attempt. Students will not be allowed to graduate with their class if the correction of the NBII deficiency does not occur before the regularly scheduled graduation date.

In that case, students will need to enroll for “Independent Studies” in the Dental School for the remainder of the summer, at no additional fees. This will assure that students continue to have all privileges as a student. After August 31, students must enroll as a “senior student on an altered curriculum” for this same benefit. This will require a prorated registration fee, including tuition and other fees, to be determined by the Registrar’s office.

**Course Remediation/Repetition**

**Final Grade**

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.

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.

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.

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.

The grade achieved by the student in remediation of a course in an attempt to correct a deficient Group A or Group B GPA (less than 2.0) is the grade that will be used in calculating the Group A and Group B GPAs for the academic year and the overall GPA; however, both grades for the course will appear on the final transcript.

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 GPAs for the academic year and the overall GPA; however, the previous grade or grades achieved in each course also will appear on the final transcript.

**Failure to Successfully Remediate or Repeat Year**

A student who fails to correct an F grade deficiency or raise her/his deficient grade point average to 2.0 or above after remediation or repetition of the academic year will be considered for academic dismissal.

The Promotions Committee will review the entire academic record and any extenuating circumstances before making a recommendation for dismissal. Only in exceptional circumstances will the Promotions Committee recommend another correction program in lieu of dismissal. However, no student will be allowed to repeat an academic year more than once.

**Dismissal**

A student can be considered for dismissal from the school for academic deficiencies or violation of University regulations and Dental School Code of Ethics. The Academic Performance Committee is responsible for considering students for academic dismissal and makes its recommendations to the Dean. All recommendations of the Academic Performance Committee require the approval of the Dean.

**Academic Dismissal**

An option to appear before the Academic Performance Committee will be extended to the student before a vote is taken to recommend academic dismissal to the Dean. 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. Before the vote is taken, all non-committee members will be excused.

A student will be considered for academic dismissal if he/she meets any of the following conditions:

**GPA Deficiency**

- Receipt of a GPA less than 2.0 in either Group A or Group B courses of the year's curriculum.
- 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.

**F** Grade Deficiency

- Unsuccessful attempt to remediate a course or courses for which an F grade has been given.
- Receipt of an F grade for a course or courses during the repetition of an academic year.

**National Board Deficiency**

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 for the National Board Dental Examination, Part I or Part II.

**Academic and Professional Misconduct Dismissal**

A student may be considered for dismissal if he/she fails to demonstrate to the faculty the intellectual, ethical, or behavioral attributes appropriate for members of the dental profession.

**Appeals Process**

A student may appeal a decision by the Promotions Committee recommending a) remediation, b) repetition of the year, or c) academic dismissal, which the Dean has sustained, by submitting to the Dean's Office within five (5) days following receipt of written notification of the Committee's recommendation a written request for an opportunity to appeal to the Dean of the Dental School.

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.

Procedural appeal may be made in writing to the President of the Health Science Center, in accordance with Health Science Center Policy.

**Disciplinary Probation and Dismissal**

Violation of Health Science Center regulations concerning standards of conduct which compromise professional integrity and/or competence will make a student eligible for either disciplinary probation or dismissal. Procedures for dismissal will be governed by the guidelines contained in the “Procedures and Regulations Governing Student Conduct and Discipline.”

The policies contained in this Catalog concerning grades, promotion, and graduation are those in effect at the time of publication and are subject to change. Students are responsible for inquiring about changes each year.

**Promotion**

Recommendation for promotion to the next year of the curriculum is made by the Academic Performance Committee to the Dean. 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.

Graduation
The degree 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 National Board Dental Examinations–Part I and Part II, be of good moral character, and comply with all necessary legal and financial requirements.

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.

Dental School Graduation Ceremony Policy
The faculty marshals chosen by the graduating class and approved by the Dental School administration will hood the Dental School candidates at the graduation ceremony. No other individuals will be allowed to hood the candidates for graduation. However, current UTHSCSA faculty members may petition the Dean of the Dental School to allow them to present the diploma to their daughter/son during the ceremony.

Guidelines for Clinical Attire and Grooming

A. Clinic Dress
1. Dental Students
   a. Required wear in clinics includes disposable protective overgarment whenever seeing patients in the clinic. This guideline will apply if splash or spatter is being generated. Overgarments must not be worn outside designated clinical areas including administrative offices. Disposable overgarments should be worn for a single clinic session. In cases where visible contamination occurs and the patient care relocates, the gown should be changed.
   b. Surgical mask.
   c. Gloves—latex or vinyl.
   d. Protective eyewear with sideshields or faceshield.
   e. HSC badges must be worn underneath gown. Name tags worn on disposable overgarments must be disposable and disposed of along with gown at end of session.
2. Predoctoral Student Clothing
   a. While in clinic: V-neck, short sleeve, traditional scrub style uniform consisting of a scrub top and pants. Clinic standards require that the uniform be neat, clean, pressed and in good repair, without obvious holes or tears.
   b. The uniform should be made of a cotton-polyester blend.
   c. The uniform should be a solid color (no prints or patterns). No institutional markings should appear on the uniform.
   d. Color choice is the discretion of the individual; however, solid black and solid white are not permitted.
   e. The student should wear the same color scrub top and pants.
   f. Shoes options:
      i. Leather street shoes (low-heeled, closed-toe).
      ii. Sport shoes (tennis, running, basketball, etc.) in good repair and clean.
   NOTE: Students are encouraged to reserve sport shoes or other shoes for wear in the clinics and to wear other shoes to and from the University.

B. Personal Grooming
1. The Health Science Center grooming standards do not define minimum regulations relating to hair, either as to amount or styling. Therefore, to eliminate the potential for contamination from facial or long hair, hair must be above the collar while working with patients. This may be accomplished by wearing a net or surgical cap or by pinning.
2. Disposable mask and protective eyewear will be worn during all patient treatment (including screening). A new mask is to be worn for each patient.*
3. Hands should be well kept with short, clean fingernails. Fingernail polish should not be used.
4. Jewelry, if worn, must not interfere with good dental care delivery. Rings, except for plain wedding bands, and other jewelry such as bracelets and earrings are inappropriate. A watch and small earrings may be worn.
5. Students should exercise excellent body, oral, and facial hygiene. Deodorants are recommended, as necessary and where necessary.
6. Eyeglasses or safety glasses with side shields are required and must be worn at all times when working in the cubicle whether providing treatment or doing bench work.*
7. All individuals having patient contact will wear disposable latex gloves whenever there will be contact with blood, saliva, or mucous membranes. Gloves

* Safety Standard, The University of Texas Health Science Center at San Antonio, November 1, 1975, Number 3, Page 1: A. "Personal protective equipment shall be used where machines or operations present the hazard of flying objects, glare, harmful liquids, injurious radiation, or a combination of these hazards."
should be changed and hands rewashed between patients, and hourly.*
8. Providers of care should not demonstrate visible body piercings and jewelry, other than conservative single earrings.

Teacher Training Honors Program
The Teacher Training Honors Program recognizes students who, in addition to their clinical dental program, have developed teaching skills and performed academic-related research. Students in the program complete three special teaching electives: Teaching Training, Teaching Experience, and Project Summary and Evaluation. Students who successfully complete this program will graduate with the designation Honors in Teaching Training on their official transcripts.

Research Honors Program
The Research Honors Program recognizes student investigators who, in addition to their clinical dental program, have acquired research skills and accomplished significant research activity. Students in this program complete three Special Research Electives — Protocol Development, Completion of Individually Designed Research and Manuscript Preparation, and Presentation of Individually Designed Research. Students who successfully complete this program will graduate with the designation Honors in Research on their official transcripts.

Dean’s List
The Dean’s List was established in 1983 to recognize students who have demonstrated academic achievement by maintaining a 3.9 grade point average or above for the academic year. Each year those students in the four classes are honored.

Other Academic Recognition Programs
Scholarship in Basic Sciences
The criterion for selection for this award is achievement of a cumulative GPA of 3.9 for the following courses: biochemistry, gross anatomy, microanatomy, microbiology, physiology, general pathology, neuroscience, and pharmacology. If a course is remediated or repeated, both grades for the course will be included in the calculation of the GPA. Recognition for this award will include a permanent entry on the student’s transcript.

Award for Excellence in Clinical Dentistry
The criterion for this award is achievement of a GPA of 3.8 or above for Group B courses in both the junior and senior years. If a course is repeated or remediated, both grades received in the course will be used in calculating the GPA. Recognition for this award will include a permanent entry on the student’s transcript.

Achievement on National Board Dental Examination, Part I
The criterion for this award is achievement of a score of 90 or above on the National Board Dental Examination, Part I. Recognition for this award will include presentation of a certificate at the annual Dental School Awards Convocation.

Award for Exemplary Achievement on the National Board Dental Examination, Part II
The criterion for this award is achievement of a score of 90 or above on the National Board Dental Examination, Part II. Recognition for this award will include presentation of a certificate at the annual Dental School Awards Convocation.

Dual Degree Programs
Dual degree programs of study at The University of Texas Health Science Center at San Antonio 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 the training of clinical scientists who have not only depth of knowledge in clinical medicine or dentistry and basic sciences, but 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 UTHSCSA Dental School and the Graduate School of Biomedical Sciences. Students submit applications for admission to the Dual Degree Program through the Texas Medical and Dental Schools Application Service and to the UTHSCSA Graduate School of Biomedical Sciences 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 for admission as a traditional DDS candidate if they choose not to complete the DDS/PhD training program.

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.

Advanced Education Programs
Certificate and Master of Science degree programs, residency programs in General Dentistry, Oral & Maxillofacial Surgery, and an Advanced Education in General
Dentistry program are offered at the Health Science Center. The certificate programs in Dental Diagnostic Science, Endodontics, and Pediatric Dentistry require two years of study; Periodontics and Prosthodontics certificate programs require three years. Subsequent admission to the Graduate School of Biomedical Sciences (at the end of the first year of study) and successful completion of graduate study are required for the Master of Science degree offered in Periodontics, Prosthodontics, Endodontics, or Dental Diagnostic Science. The General Practice residency program and Advanced Education in General Dentistry program, conducted by the Department of General Dentistry, are one year in length. The Orthodontics residency program is 35 months. A 72-month residency program in Oral & Maxillofacial Surgery is affiliated with the Dental School.

**International Dentist Education Program (IDEP)**

In accordance with the Law of the State of Texas, the UTHSCSA Dental School wishes to inform the public of a possible new program beginning in the year 2007–2008.

**Purpose:** The International Dentist Education Program (IDEP) is intended to provide an avenue for foreign-trained dentists to apply for a dental license within the United States and/or become eligible for a faculty position in a U.S. Dental School.

**Admission Timeline:**

- **March 1–Sept. 1:** Submission of the completed application
- **July 1–Oct. 1:** Evaluation interviews; psychomotor skills exams
- **November:** Notification of Acceptance for the following April

For IDEP description and requirements, contact:

International Dentist Education Program (IDEP)
UTHSCSA
Office of the Dental Dean
Mail Code 7906
7703 Floyd Curl Drive
San Antonio, TX 78229-3900
Telephone: (210) 567-3162
Fax: (210) 567-6721
E-mail: jimenezd2@uthscsa.edu

*Information listed is subject to change.*
The Freshman Year

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Semester Credit Hours</th>
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<tr>
<td>BIOC 5013</td>
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<td>COMD 5002</td>
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<td>COMD 5015</td>
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* = semester(s) presented
A single grade at the end of the year is given for courses which extend through both semesters.
Courses may change based on ongoing curriculum review.

Course Descriptions

BIOC 5013  Biochemistry

5.5 Semester Credit Hours

Primarily lectures and conferences, this course is designed as a survey course for dental students. 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.

COMD 5002  Behavioral Dentistry I

1.0 Semester Credit Hour

This course presents information designed to enhance the personal, professional, and patient management skills of the future practitioner. Topics, including stress management, communication skills, and time management, are included to aid the student in dealing with the academic environment as well as future dental patients. Information on clinical protocol and record management are intended to provide the student an opportunity to experience initial practice and clinical management.

COMD 5015  School-Based Prevention

0.0 Semester Credit Hours

Students have the opportunity to participate in a public health preventive program in elementary schools, supervising a fluoride rinse program and providing small-group instruction in toothbrushing. The program aims to demonstrate to dental students effective group prevention and to foster more widespread human materials fee: $300.

COMD 5017  Preventive and Community Dentistry

1.0 Semester Credit Hour

This course provides an introduction to the first-year dental students of the theoretical and practical concepts of the prevention of oral disease and conditions at the community level. This course, therefore, is a foundation course in dental public health, oral epidemiology and oral disease prevention, and promotion of health in the community. This course is subdivided into three general topic areas: an overview of public health and, specifically, dental public health and oral epidemiology; the second session will focus on the etiology of oral disease and examine the epidemiology of specific oral diseases; and the third section examines health promotion efforts in the community for caries and other oral diseases.

CSBL 5016  Gross, Head & Neck Anatomy

7.5 Semester Credit Hours

The structure of the human body, with emphasis upon the functional anatomy of the trunk, neck, and head, is the focus of this course. 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. Human materials fee: $300.
COMD 5046  Cariology
0.5 Semester Credit Hours
This course is designed to be a comprehensive course in cariology, covering the scientific background, etiology and clinical aspects of prevention of dental caries.

CSBL 5032  Dental Histology
5.0 Semester 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. Lab fee included in general lab fee. $48 microscope fee for the Freshman year includes this course.

DIAG 5009  Introduction to Dental Radiology
1.0 Semester Credit Hour
This course provides students with an opportunity to develop preclinical technical skills in placing, exposing, processing, and mounting dental radiographs using a technique mannequin (DXTTR). Students will also have an opportunity to gain preliminary experience in the assessment of radiographs for normal anatomic structures, caries, periodontal disease, and other dental anomalies.

DIAG 5014  Physical Evaluation I
1.5 Semester Credit Hour
The curriculum includes didactic and clinical experience in obtaining and interpreting a patient history; extraoral and intraoral physical examination procedures; interpretation of the findings of the examination; obtaining and interpreting appropriate clinical laboratory examinations; communication with health care professionals; risk status assessment and documentation.

DIAG 5049  Practical Infection Control in Dentistry
1.0 Semester Credit Hour
Practical infection control, used by dentists to combat the threat of hepatitis, AIDS, and other infectious diseases to the dentist, dental staff, and patients is presented. Subjects will include patient screening, personal protection, instrument sterilization, surface and equipment disinfection, aseptic technique, and laboratory asepsis. Emphasis will be placed on the major infectious diseases, technique selection, and product evaluation. A review of current infection control guidelines is included. Handouts appropriate for a dental office infection control manual will be used.

EMST 5001  Basic Cardiac Life Support
0.0 Semester 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.

GEND 5001  Foundations of Professional Development
2.0 Semester 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.

INTD 5030  Introduction to Patient Care
5.0 Semester Credit Hours
Freshman students are introduced to and familiarized with assisting techniques that will permit the student to participate in actual patient care delivery during the first year of dental school.

MICR 5013  Microbiology
4.0 Semester 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. Lab fee included in general lab fee.

PERI 5081  Periodontics I
1.5 Semester Credit Hours
This course provides an introduction to the periodontal diseases with a particular focus on their etiology and pathogenesis. Basic science information regarding the microbial etiology of the periodontal diseases and the immunologic responses of the host are presented in the context of the clinical setting. Clinical, histopathologic, immunologic, and microbiologic information is provided in a coordinated description of the etiology, pathogenesis, and clinical manifestations of disease.

PHAR 5001  Pharmacology
4.0 Semester Credit Hours
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.

PHYL 5013  Dental Physiology
6.5 Semester 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.

RESD 5001  Biomaterials I
1.0 Semester 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 and Occlusion
2.0 Semester Credit Hours
This course is designed to teach the freshman dental students
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 5005  PCL Dental Anatomy and Occlusion
3.0 Semester Credit Hours
This course is designed to provide the freshman dental student practice in applying the knowledge presented in the Dental Anatomy and Occlusion didactic course. Additionally, it is intended to develop the manual dexterity and eye-hand coordination necessary to perform laboratory and clinical tasks that will be required for clinical practice.
### The Sophomore Year

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Semester I</th>
<th>Semester II</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMD 6025</td>
<td>Nutrition</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>COMD 6031</td>
<td>Professional Ethics</td>
<td></td>
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<tr>
<td>COMD 6048</td>
<td>Caries Risk Management</td>
<td>x</td>
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</tr>
<tr>
<td>DIAG 6011</td>
<td>Clinical Medicine</td>
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</tr>
<tr>
<td>DIAG 6035</td>
<td>Physical Evaluation II</td>
<td>x</td>
<td>x</td>
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</tr>
<tr>
<td>DIAG 6132</td>
<td>Dental Radiology I</td>
<td>x</td>
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<tr>
<td>ENDO 6041</td>
<td>Endodontics Lecture</td>
<td>x</td>
<td></td>
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<tr>
<td>ENDO 6142</td>
<td>Preclinical Endodontics</td>
<td>x</td>
<td></td>
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<tr>
<td>GEND 6001</td>
<td>Professional Development II</td>
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</tr>
<tr>
<td>INTD 6010</td>
<td>Evidence-based Dentistry</td>
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<td>x</td>
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<tr>
<td>INTD 6015</td>
<td>Case Conferences</td>
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</tr>
<tr>
<td>INTD 6088</td>
<td>Clinic Introduction</td>
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<tr>
<td>INTD 6111</td>
<td>Comprehensive General Dentistry</td>
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<tr>
<td>ORTH 6075</td>
<td>Orthodontics</td>
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<tr>
<td>ORTH 6077</td>
<td>Growth and Development</td>
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<td></td>
<td>1.5</td>
</tr>
<tr>
<td>OSUR 6051</td>
<td>Oral and Maxillofacial Surgery I</td>
<td></td>
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</tr>
<tr>
<td>OSUR 6056</td>
<td>Local Anesthesia</td>
<td></td>
<td></td>
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<tr>
<td>OSUR 6140</td>
<td>Nitrous Oxide and Conscious Sedation</td>
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<tr>
<td>PATH 6019</td>
<td>General Pathology</td>
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<tr>
<td>PATH 6021</td>
<td>Oral Pathology</td>
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<tr>
<td>PERI 6082</td>
<td>Periodontics</td>
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<tr>
<td>PROS 6011</td>
<td>Prosthodontic Treatment for the Dentate/Partially Dentate Patient</td>
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<td>PROS 6012</td>
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<td>PROS 6018</td>
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<tr>
<td>PROS 6058</td>
<td>Implant Prosthodontic Treatment for the Edentulous and Partially Edentulous Patient</td>
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<td>PROS 6059</td>
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<tr>
<td>PROS 6094</td>
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<tr>
<td>PROS 6095</td>
<td>Preclinical Removable Partial Denture-Lab</td>
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<tr>
<td>RESD 6001</td>
<td>Operative Dentistry</td>
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<tr>
<td>RESD 6002</td>
<td>Preclinical Operative Dentistry</td>
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<tr>
<td>RESD 6102</td>
<td>Biomaterials II</td>
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<td></td>
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</tbody>
</table>

* x = semester(s) presented
* A single grade at the end of the year is given for courses which extend through both semesters.

### Course Descriptions

**COMD 6025 Nutrition**  
*1.0 Semester Credit Hour*

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 6031 Professional Ethics**  
*0.0 Semester Credit Hours*

The application of ethical principles in the everyday practice of dentistry such as informed consent, truth telling, confidentiality, paternalism, and refusal to treat.

**COMD 6048 Caries Risk Management**  
*1.0 Semester Credit Hour*

This is designed to be a comprehensive course in cariology, covering the scientific background, etiology and clinical aspects of prevention of dental caries.

**DIAG 6011 Clinical Medicine**  
*2.0 Semester 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) my 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 6035  Physical Evaluation II
1.5 Semester Credit Hours
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 examinations, clinical laboratory, and other supplementary examinations. Clinical and radiographic characteristics, as well as signs and symptoms of caries, are discussed. Lectures stress the examination of the teeth and their supporting structures as they relate to the accurate diagnosis of caries, pulp pain, and diseases which could mimic pulp pain. Factors affecting treatment plans, with emphasis on medical compromises, also are presented.

DIAG 6132  Dental Radiology I
1.0 Semester Credit Hour
This course offers an introduction to dental radiology including didactic and clinical instruction in radiation physics, radiation biology, radiation hygiene, film processing, and radiological interpretation of normal anatomy, caries, periodontal disease, and periapical disease.

ENDO 6041  Endodontics Lecture
1.0 Semester Credit Hour
This is a lecture course designed to introduce the student to the fundamentals of clinical endodontics.

ENDO 6142  Preclinical Endodontics
1.5 Semester Credit Hours
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. Lab fee included in general laboratory fee.

GEND 6001  Professional Development II
2.0 Semester 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.

INTD 6010  Evidence Based Dentistry
1.0 Semester Credit Hour
Ability to read and evaluate various sources of knowledge, including articles published in dental and medical literature, advertisements, Internet sources, and continuing education programs

INTD 6015  Case Conferences
0.5 Semester Credit Hours
As a series of eight conferences, this course is designed to enhance interaction between the basic and clinical sciences while providing a participative learning experience for students. The integrative, multidisciplinary academic format promotes an opportunity for students to develop the analytical, critical thinking, and problem solving skills essential for successful clinical practice. Pertinent topics not covered elsewhere in the curriculum may be included.

INTD 6088  Clinic Introduction
4.5 Semester Credit Hours
This course is designed to ease the students’ transition from laboratory to clinic, allowing them an opportunity to apply, in a clinical setting, skills and knowledge which were presented in previous basic science and preclinical courses. It also allows students the opportunity to practice patient and time management skills while preparing patients in various stages of diagnostic workup or treatment for the junior clinic. Finally, it introduces students to the paperwork and staff interaction needed in the junior year.

ORTH 6075  Orthodontics
1.5 Semester Credit Hours
An introduction to orthodontics including definitions, scope of orthodontics, classifications and etiology of malocclusion, and the diagnostic criteria and biomechanics of specific orthodontic appliances which are fabricated in the companion orthodontic laboratory course.

ORTH 6077  Growth and Development
1.5 Semester Credit Hours
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.

OSUR 6051  Oral & Maxillofacial Surgery I
1.5 Semester Credit Hours
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 Semester Credit Hours
A didactic course dealing with aspects of local anesthesia as they relate to dental practice. Neuroanatomy, physiology, and pharmacology of local anesthesia is presented as well as the prevention and management of complications and emergencies encountered in clinical local anesthesia.

OSUR 6140  Nitrous Oxide and Conscious Sedation
0.5 Semester Credit Hours
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.

PATH 6019  General Pathology
5.0 Semester 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. Lab fee included in general laboratory fee. $48 microscope fee.

**PATH 6021 Oral Pathology**

<table>
<thead>
<tr>
<th>4.0 Semester Credit Hours</th>
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<tbody>
<tr>
<td>A didactic course which introduces the basic pathological changes which occur in oral tissue. Lectures are supplemented by Kodachrome® illustrations with emphasis placed upon histoclinical correlation.</td>
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</table>

**PERI 6082 Periodontics**

<table>
<thead>
<tr>
<th>1.5 Semester Credit Hours</th>
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<tbody>
<tr>
<td>During the first semester, the objectives and rationale for periodontal therapy are presented. Lectures, laboratory, clinical exercises, and case presentations are sequenced to encourage a progressive development of diagnostic and initial therapy skills. Prevention and control of the bacterial causes of periodontal diseases are emphasized. Specific topics include periodontal examination, diagnosis, prognosis, treatment planning, plaque control, subgingival therapy, and local modifying etiologic factors. The second semester expands the information on therapy. Specific methods for diagnosing and treating acute periodontal disease are described. Emphasis is given to systemic diseases which mimic periodontal disease and modify therapy. The importance and rationale of maintenance is stressed. Current information concerning chemotherapeutics in periodontics also is presented. Lab fee included in general laboratory fee.</td>
</tr>
</tbody>
</table>

**PROS 6011 Prosthodontic Treatment for the Dentate/Partially Dentate Patient**

<table>
<thead>
<tr>
<th>2.5 Semester Credit Hours</th>
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</thead>
<tbody>
<tr>
<td>A lecture series 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.</td>
</tr>
</tbody>
</table>

**PROS 6012 Preclinical Prosthodontic Treatment for the Dentate/Partially Dentate Patient**

<table>
<thead>
<tr>
<th>4.0 Semester Credit Hours</th>
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<tbody>
<tr>
<td>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-appearing 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. Lab fee included in general laboratory fee.</td>
</tr>
</tbody>
</table>

**PROS 6018 Prosthodontic Treatment for the Edentulous Patient**

<table>
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<tr>
<th>1.0 Semester Credit Hour</th>
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<tbody>
<tr>
<td>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.</td>
</tr>
</tbody>
</table>

**PROS 6019 Preclinical Prosthodontic Treatment for the Edentulous Patient**

<table>
<thead>
<tr>
<th>2.0 Semester Credit Hours</th>
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<tbody>
<tr>
<td>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. Lab fee included in general laboratory fee.</td>
</tr>
</tbody>
</table>

**PROS 6058 Implant Prosthodontic Treatment for the Edentulous and Partially Edentulous Patient**

<table>
<thead>
<tr>
<th>1.0 Semester Credit Hour</th>
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<tbody>
<tr>
<td>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. Fee: $500.</td>
</tr>
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</table>

**PROS 6059 Implant Prosthodontic Treatment for the Edentulous and Partially Edentulous Patient**

<table>
<thead>
<tr>
<th>0.5 Semester Credit Hours</th>
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<tbody>
<tr>
<td>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.</td>
</tr>
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</table>

**PROS 6094 Removable Prosthodontics for the Partially Edentulous Patient**

<table>
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<tr>
<th>2.0 Semester Credit Hours</th>
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<tbody>
<tr>
<td>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.</td>
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</table>

**PROS 6095 Preclinical Removable Partial Denture-Lab**

<table>
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<tr>
<th>1.0 Semester Credit Hour</th>
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<tbody>
<tr>
<td>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.</td>
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**RESD 6001 Operative Dentistry**

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<tr>
<th>2.5 Semester Credit Hours</th>
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<tbody>
<tr>
<td>Lectures provide basic restorative philosophy and techniques in cavity design, instrumentation, and restorative materials manipulation used in modern dentistry. These lectures are designed to augment the preclinical projects conducted in the laboratory which provide simulation of clinical conditions.</td>
</tr>
</tbody>
</table>

**RESD 6002 Preclinical Operative Dentistry**

<table>
<thead>
<tr>
<th>3.5 Semester Credit Hours</th>
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<tbody>
<tr>
<td>Preclinical projects provide students an opportunity to practice skills presented in the lecture course. Exercises include mixing and placement of interim restorative materials, glass ionomer, silver amalgam, and composite resin. Lab fee included in general laboratory fee.</td>
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**RESD 6102 Biomaterials II**

<table>
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<th>1.0 Semester Credit Hour</th>
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<tr>
<td>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.</td>
</tr>
</tbody>
</table>
## Course Descriptions

**COMD 7003  Behavioral Dentistry II**

*1.0 Semester Credit Hour*

Application of the basic concepts presented in COMD 6002 Behavioral Dentistry is the focus. Primary topics include patient management, origin and treatment of dental fear, special patient considerations, and maladaptive oral habits. Small group discussions consider topics ranging from communication skills in dentistry to the decision-making process of practice dilemmas.

**COMD 7050  Preventive Dentistry Practice**

*1.5 Semester Credit Hours*

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 caries, it also includes prevention of gingivitis, oral cancer, and orofacial trauma. Students record preventive history, diagnosis and document caries, request appropriate lab and dietary assessments, carry out a caries activity (risk) assessment, write a preventive plan, and evaluate outcomes.

**DIAG 7036  Radiographic Interpretation**

*1.0 Semester 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 Semester Credit Hours*

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.

**EMST 7001  Basic Cardiac Life Support**

*0.0 Semester Credit Hour*

Course instruction satisfies AHA guidelines for Basic Cardiac Life Support.

### The Junior Year

<table>
<thead>
<tr>
<th>Course Code</th>
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</tbody>
</table>

- x = semester(s) presented
- A single grade at the end of the year is given for courses which extend through both semesters.
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.

ENDO 7041  Endodontics Lecture
0.5 Semester Credit Hours
This didactic course emphasizes diagnosis, treatment planning, and management of endodontic problems.

ENDO 7043  Endodontics Clinic
1.0 Semester Credit Hour
Students are required to perform endodontic diagnosis and treatment procedures necessary to provide comprehensive care for patients.

GEND 7001  General Dentistry Clinic
4.0 Semester 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 UTHSCSA 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 Semester 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.

INTD 7020  Clinical Patient Management
5.0 Semester 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.

ORTH 7073  Orthodontics
1.0 Semester 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.

OSUR 7051  Oral & Maxillofacial Surgery Clinic
1.0 Semester Credit Hour
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.

PEDO 7041  Pediatric Dentistry
1.0 Semester 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
2.0 Semester 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.

PERI 7059  Implantology
1.0 Semester 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 Semester Credit Hours
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.

PROS 7018  Fixed Prosthodontics
1.0 Semester Credit Hour
This course is designed to be adjunct to and to complement the preclinical course so that the student correlates previous instruction in the clinical care of patients in need of crowns and/or fixed partial dentures.

PROS 7019  Fixed Prosthodontics Clinic
4.5 Semester 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
0.5 Semester 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, intracoronal 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 Denture Prosthodontics Clinic**

*1.5 Semester Credit Hours*

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 Denture Prosthodontics Lecture**

*1.0 Semester 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 Denture Prosthodontics Clinic**

*2.5 Semester 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.

**RESD 7008 Temporomandibular Disorders Course**

*1.0 Semester Credit Hour*

A course designed to provide students with a comprehensive approach to the diagnosis and sequential management of patients with temporomandibular disorders.

**RESD 7010 Operative Dentistry**

*1.5 Semester Credit Hours*

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 Semester 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 Semester Credit Hours*

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.
### The Senior Year

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<tr>
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<tr>
<td>COMD 8031</td>
<td>Professional Ethics</td>
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</tr>
<tr>
<td>COMD 8032</td>
<td>Jurisprudence</td>
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<td>ENDO 8043</td>
<td>Endodontics</td>
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<td>Practice Administration</td>
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<tr>
<td>GEND 8032</td>
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<td>GEND 8075</td>
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<td>GEND 8077</td>
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<td>GEND 8078</td>
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<td>OSUR 8055</td>
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<td>Oral Pathology</td>
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<td>PHAR 8009</td>
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<td>RESD 8051</td>
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**Total Credit Hours:** 43.5

• x = semester(s) presented
• A single grade at the end of the year is given for courses which extend through both semesters.

### Course Descriptions

#### COMD 8014 Oral Health Care System

1.0 Semester 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 8031 Professional Ethics

1.0 Semester Credit Hour

This course emphasizes the application of ethical theory and principles in relation to professional codes or oaths, models of professionalism, clinical decision making, analysis of ethical dilemmas, resource allocation, whistle blowing, and fair business practices in dentistry.

#### COMD 8032 Jurisprudence

0.5 Semester 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 presented as preparation for the Dental Jurisprudence examination given by the Board. General review of the interface of the law and dental practice including dental torts, malpractice, partnerships, insurance, record keeping, and other related legal issues are presented.

#### ENDO 8043 Endodontics

1.0 Semester Credit Hour

This course is comprised of lectures designed to aid the student in evaluation and selection of endodontic cases to be treated in a general practice.

#### GEND 8026 Practice Administration

1.5 Semester Credit Hours

A series of lectures dealing 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 8032 Hospital Dentistry

2.5 Semester Credit Hour

A two-week rotation by seniors in the Hospital Dentistry Clinic at University Hospital provides the following activities/clinical experiences:

- thorough orientation to the Hospital Dentistry rotation,
- answering hospital consultation requests,
- making consultation requests of medical health care providers,
- attendance at hospital rounds,
- participation in the care of patients in the operating room,
- care of patients in the Hospital Dentistry Clinic,
- performance of oral surgical procedures, and
- observation of intravenous sedations.

#### GEND 8075 Applied Practice Management

1.5 Semester Credit Hours

The course is presented as a series of eight small-group seminars and one small-group laboratory session in the fall, and three seminar presentations and one laboratory exercise in the spring semester. In the fall, students will have the opportunity to apply information from the first four seminars to develop a written business plan during the fifth seminar. In the spring, the classes are structured around the content from the Office Manual of Clinical Practice Management and the Quick Reference for the New Dentist. Role playing is utilized in some of the seminars to simulate private-practice scenarios. The seminar experiences identify management strategies necessary to establish and run a successful dental practice. The hands-on MD Laboratory session provides each student the opportunity to apply principles of clinical efficiency.

#### GEND 8077 General Dentistry Clinic

26.5 Semester 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**  
*2.0 Semester 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.

**OSUR 8055   Advanced Oral and Maxillofacial Surgery**  
*0.5 Semester 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.

**PATH 8023   Oral Pathology**  
*2.0 Semester Credit Hours*  
A didactic course emphasizing refinement of diagnostic skills and the use of the clinical findings as an aid in diagnosis. Clinical or simulated clinical cases are presented and discussed with exercises in differential diagnosis.

**PERI 8015   Periodontics**  
*0.5 Semester Credit Hours*  
Informal roundtable discussions in this course present all aspects of periodontics with emphasis on its relation to other disciplines of dentistry and their mutual dependency. This experience is devoted to clinical pursuits and the management of increasingly complex cases.

**PHAR 8009   Pharmacotherapeutics**  
*2.0 Semester 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.

**PROS 8001   Dental Implantology**  
*0.5 Semester 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.

**RESD 8051   Senior Esthetic Dentistry**  
*0.5 Semester 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 chairside color modifications.

**Junior Clinic Rotations**  
All junior dental students enhance their clinical experiences by participating in several Dental School and off-campus clinical rotations including the following:  
- **Pediatric Dentistry Clinic** (dentistry for children)  
  on and off campus  
- **University Hospital Downtown** (oral surgery)  
  off campus
- **Oral Surgery**  
  Third floor, Oral Surgery Clinic/University Hospital Downtown
- **Health Education and Prevention**  
  off campus at schools
- **Geriatric Clinic**

**Senior Clinical Rotations**  
All senior dental students enhance their clinical experiences by participating in several Dental School and off-campus clinical rotations including the following:  
- **Pediatric Dentistry Clinic** (dentistry for children)  
  on and off campus  
- **University Hospital Downtown** (oral surgery)  
  off campus
- **Oral Surgery**  
  Third floor, Oral Surgery Clinic
- **Screening** (examination of new patients)  
  Screening Clinic, second floor
- **Dental Emergency Clinic**  
- **Hospital Dentistry** (one week experience treating ill and emergency patients in a hospital environment)  
  University Hospital
- **Mobile Dental Van**  
  off campus at schools
- **State Hospital** (mentally and physically disabled adults)
- **Oral Medicine Clinic**

**Electives**  
A series of elective courses are offered each year for junior and senior students. Although elective courses are not required, successful completion results in a transcript entry. Only graded elective courses accrue credit hours. Some courses have limited enrollments. Current electives are listed below; however, offerings vary each year:  
- **Advanced Prosthodontics**  
- **Advanced Cardiac Life Support (ACLS) Preparatory Course**  
- **Advanced Esthetics**  
- **Advanced Graduate Clinic Rotation**  
- **American Cancer Society, San Antonio Metro Unit**  
- **Basic Periodontal Surgery**  
- **CAD CAM Restorations**  
- **Clinical Endodontic Problem Solving**  
- **Clinical Pathology Conference**  
- **Community Clinical Rotation**  
- **Computers in Dentistry**  
- **Conversational Spanish for the Dental Clinic - Part I**
Dental Photography
Endodontics
Endodontics Problem Solving**
Endodontics Pain Research**
Ergonomics & Pain Mgt. for Dental Professionals
Exciting, Eclectic Orthodontic Literature Review
Experience in Clinical Teaching
Forensic Dentistry
Geriatric Dentistry
Getting Acquainted with Periodontics
Graduate Orthodontic Clinic Rotation
Hospital Pediatric Dentistry
Molar Endodontic Selective
Multimedia in Teaching/Learning
Oral Histopathology
Oral & Maxillofacial Surgery Dentoalveolar Surgery
Oral Surgery Clinic Rotation
Panoramic Radiography, Other Extraoral Radiographic Techniques
Periodontal Flap Design
Preclinical Orthodontic Techniques
Private Practice Externship Program
Pulp Therapy and Dental Trauma in the Pediatric Patient Selective
Selected Topics in Head & Neck Anatomy
Supervised Teaching in Prosthodontics
Table Clinics
Single Stage/Solid Implant Elective
Special Teaching Elective—Teacher Training
Special Teaching Elective—Teaching Experience
Special Teaching Elective—Project Summary & Evaluation
Women's Health Seminar Selective
Wonderful World of Periodontics

Summer Electives
A series of elective courses are offered during the summer break to students advancing sophomore, junior or senior year. Many of the summer elective programs are off-campus and have limited enrollment. Successful completion results in a transcript entry. Current electives are listed below; however, offerings vary each year:

- American Student Association/NHSC/Health Promotion/Disease Prevention
- Basic Aspects of Immunology and Microbiology
- Biochemistry Research
- CAD CAM Restorations
- Colorado Migrant Health Program
- Commissioned Officer Student Training and Extern Program Clinical Assignment - COSTEP
- Community Dentistry Research Project
- Composite Inlay/Onlay Systems
- Comprehensive Dental Clinical Diagnosis and Treatment Rotation
- Computers in Dentistry
- Endodontic Summer Elective
- General Practice Dental Emergency Care (DECC)
- Hospital Dentistry: Freshman and Sophomore Elective
- Implantology: Prosthodontic and Maintenance Elective
- Independent Studies
- Intravenous Sedation
- Neurosurgery Testing/Human Behavior
- Oral and Maxillofacial Surgery Externship
- Orthodontic Summer Clinic
- Pediatric Dentistry Clinical Externship Program
- Personal Financial Planning for the Dental Student
- Pharmacology Research
- Preclinical Operative Dentistry Skills Maintenance Course
- Predoctoral Implantology: Comprehensive Elective
- Preventive Dentistry Outreach Selective
- Senior Selective in Oral Medicine
- Simulated Private Practice Clinic Elective
- Sports Mouthguards
- Summer Clinical Elective
- Summer Clinical/Community Externship Program
- Women's Clinic

* Freshmen and Sophomores also
**Sophomores also
# Dental School
## Academic Calendar 2005–2006

### Fall 2005

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<th>Activity</th>
<th>Student Group</th>
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<td>Monday, July 18, 2005</td>
<td>1st Class Day</td>
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<td>Orientation &amp; Registration-New Students</td>
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<td>Tuesday, August 02, 2005</td>
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<tr>
<td>Friday, December 23, 2005</td>
<td>Graduation (No Ceremony)</td>
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*University Holidays Tentative

### Spring 2006

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<td>Wednesday, January 18, 2006</td>
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<tr>
<td>Monday, March 06, 2006</td>
<td>Spring Break Begins</td>
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<td>Friday, March 10, 2006</td>
<td>Spring Break Ends</td>
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<td>Tuesday, April 25, 2006</td>
<td>Term Concludes</td>
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<tr>
<td>Thursday, May 18, 2006</td>
<td>Graduation Rehearsal</td>
<td>9:00 AM</td>
</tr>
<tr>
<td>Friday, May 19, 2006</td>
<td>Term Concludes</td>
<td>DS1, 2, 3</td>
</tr>
<tr>
<td>Saturday, May 20, 2006</td>
<td>Graduation-Laurie Auditorium</td>
<td>9:00 AM</td>
</tr>
<tr>
<td>Monday, May 29, 2006</td>
<td>*University Holiday (Offices Closed)</td>
<td></td>
</tr>
<tr>
<td>Tuesday, July 04, 2006</td>
<td>*University Holiday (Offices Closed)</td>
<td></td>
</tr>
</tbody>
</table>

*University Holidays Tentative

Note: The 2006–2007 Academic Calendar will be made available on the Student Services Web in the Fall.
Advanced Dental Education Programs

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 combined resources of the Dental School, the Medical School, the Graduate School of Biomedical Sciences and affiliated patient care institutions in the community provide opportunities for flexibility in offerings in order to meet the demands of today's dental practitioners.

Certificate and Degree Programs
The certificate and master's degree programs are directed toward providing opportunities for the development of well-trained clinicians, competent in providing broad spectrum care, and teachers with a comprehensive background of clinical experience, current basic science knowledge relevant to dentistry, and an understanding of research methodology. Certificate programs are administered by the Dental School; master of science and Ph.D. degrees are granted by the Graduate School of Biomedical Sciences.

Master's degree and certificate programs are offered in Dental Diagnostic Science, Endodontics, Prosthodontics, and Periodontics. A certificate program only is available in Pediatric Dentistry; however, a master's degree option for Pediatric Dentistry students is available in basic sciences and public health.

Program lengths vary: Prosthodontics and Periodontics programs (Periodontics requires a master's degree) require three years; Dental Diagnostic Science certificate program requires 30 months, plus an additional six months for the master's degree in Oral & Maxillofacial Radiology; Pediatric Dentistry and Endodontics certificate programs run two years, with an additional six months required for the master's degree in Endodontics.

<table>
<thead>
<tr>
<th>Program</th>
<th>Certificate</th>
<th>Master's</th>
<th>Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dental Diagnostic Science</td>
<td>X</td>
<td>X</td>
<td>30 mos. 36 mos.</td>
</tr>
<tr>
<td>Endodontics</td>
<td>X</td>
<td>X</td>
<td>24 mos. 30 mos.</td>
</tr>
<tr>
<td>Pediatric Dentistry</td>
<td>X</td>
<td></td>
<td>24 mos.</td>
</tr>
<tr>
<td>Periodontics</td>
<td>X</td>
<td>X</td>
<td>36 mos.</td>
</tr>
<tr>
<td>Prosthodontics</td>
<td>X</td>
<td>X</td>
<td>36 mos.</td>
</tr>
</tbody>
</table>

Residency Training
The Health Science Center and associated hospitals offer residency training programs which include an Advanced Education in General Dentistry Program, a General Practice Residency, an Oral & Maxillofacial Surgery Residency, and a Dental Public Health Residency. These programs focus on providing educational opportunities by maximizing patient care activities. (See “Associated Programs,” p. 164.)

Advanced Education in General Dentistry
The AEGD certificate program presents advanced clinical techniques and experiences and expands clinical training with significant didactic contributions. Diagnosis and treatment planning of complex and comprehensive cases and the promotion of clinical skills and techniques are emphasized. The program is from one to two years in length.

Dental Public Health
The Department of Community Dentistry offers a one-year, full-time or a two-year, part-time Residency in Dental Public Health. The program is designed to allow dentists with the Master of Public Health degree or its equivalent to complete the educational requirements for Board Certification as a recognized specialist in Dental Public Health.

Oral and Maxillofacial Surgery Residency
A program of study for dentists in Oral and Maxillofacial Surgery is offered at UTHSCSA. The Medical Program combines formal medical education leading to an M.D. degree with clinical training. This is a six-year course of study with openings for two positions per year. Individuals accepted into the residency program are automatically accepted into the second-year class of the Medical School. (The MCAT is not required.)

General Practice Residency
The General Practice Residency Program is designed to prepare graduate dentists to become competent general practitioners, capable of providing comprehensive, state-of-the-art dental care. Dental care for medically compromised patients serves as the framework for clinical training. The program is from one to two years in length. Research opportunities are available.

Orthodontics
The Department of Orthodontics offers a 35-month residency for advanced training in orthodontics and dentofacial orthopedics. This program is designed to offer a broad spectrum of clinical and didactic experience in the field. The emphasis of the program is placed on strong clinical and scholarly skills in preparation of the resident for an academic career. Prior to the student’s completion of the program, a Master of Science or Ph.D. program must be completed to accompany the certificate of residency training. The training program will meet the formal requirements for eligibility to take the phase II and phase III portion of the American Board of Orthodontics. For more information call 210-567-3500 or -3510.

Admission
Certificate Programs
Students are admitted to 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 prior to matriculation and must present acceptable academic records and references. A personal interview is recommended.

Grades of dental schools which have not been accredited by the Commission on Dental Accreditation must take the Graduate Record Examination Aptitude Test prior to application and achieve a minimum combined score of 1,000 on the verbal and quantitative portions.

Applicants for whom English is not the native language are required to submit scores from the Test of English as a Foreign Language (TOEFL). A minimum score of 560 is required on the paper-based test, 220 on the computer-based test, and 68 on the Internet-based test.

At the conclusion of the first year in a certificate program, students have the option of applying to enter the degree program or of continuing in the certificate program.

Master’s Degree Programs

Admission to the degree programs in Periodontics, Prosthodontics, Endodontics, or Dental Diagnostic Science from the certificate program in the same specialty is dependent upon satisfactory scholastic performance during the first year of the certificate program, a minimum grade average of B in postdoctoral courses, faculty recommendations, a minimum score of 1,000 on the verbal and quantitative portions of the GRE Aptitude Test*, and approval by the Graduate Faculty Council of the Graduate School of Biomedical Sciences.

Application Procedures

Application forms for postdoctoral certificate programs and appropriate dates for the return of completed forms and required supplementary information may be obtained from the UTHSCSA Website at [http://dental.uthscsa.edu](http://dental.uthscsa.edu) or by writing:

UTHSCSA
Dental School
Associate Dean for Student Affairs
7703 Floyd Curl Dr.
San Antonio, Texas 78229-3900

General Policies

Degree Programs

Postdoctoral dental students who enter the Graduate School of Biomedical Sciences’ degree programs after the first year of study in one of the certificate programs are subject to policies and procedures of the Graduate School of Biomedical Sciences as well as general regulations and requirements of The University of Texas Health Science Center at San Antonio. Information regarding admission, registration, grading, continuation, etc., is presented in the Graduate School of Biomedical Sciences section of this Catalog.

Certificate Programs

Postdoctoral dental students in certificate programs are subject to general policies of the Dental School and the Health Science Center as well as those explained below.

Registration

Students must register and pay tuition and fees on the date of official registration shown in the “General Information” section of this Catalog. A late registration fee of $100 will be assessed students who register after the official registration period closes.

Grading

A letter grading system is used in the certificate programs. To calculate a grade point average, grade points are assigned to letter grades.

- A = 4 points (above average postgraduate work)
- B = 3 points (average postgraduate work)
- C = 2 points (below average postgraduate work)
- D = 1 point (failing postgraduate work)
- F = 0 points (failing postgraduate work)

Grades of D and F are not acceptable for postgraduate credit and must be upgraded to an acceptable level. Course directors may require the student to repeat a failed course during the next period that the course is offered. Grades for repeated courses will be assigned using the grading system outlined previously. Course directors may also permit abbreviated, remedial instruction aimed at raising student competence in specific areas for a failed course. A grade of C will be given for successful remediation. Grades earned in repeated or remediated courses will be substituted for the original grade in the computation of the grade point average.

The grades S (satisfactory), U (unsatisfactory), or H (Honors) are given for the following courses:

- Seminar
- Literature Searching
- Supervised Teaching
- Research

S, U, and H grades are not included in the computation of the grade point average; however, a grade of U must be upgraded to an S either through remediation or repetition of the course.

Other symbols used in reporting the standing of students in their classes are: WP (withdrew passing) and WF (withdrew failing); Q (course dropped while receiving a passing grade—no penalty); and I (incomplete). 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 in order for the symbol I to be converted into a letter grade by the instructor. If the work is not completed within one year, the letter grade F will be assigned.

* Scores on GRE tests taken more than five years prior to the date of application are not acceptable.

1 Supervised Teaching only
Waiver of Courses and Advanced Standing

Postgraduate students may apply for waiver of a course requirement or for advanced standing in a course. Permission may be granted on an individual basis with a recommendation from the program director and the course director, subject to the approval of the departmental Committee on Postdoctoral Studies and the Associate Dean for Student Affairs.

Continuation

Continuation in the postgraduate certificate program is dependent upon the following:

• Postgraduate students are required to satisfactorily demonstrate clinical competence as determined by the program director and the Committee on Postdoctoral Studies. Clinical competence will include, but not be limited to: (a) professional demeanor, including patient, student, and faculty relationships; (b) professional appearance; and (c) application and demonstration of clinical operating skills.

• Postgraduate students will be monitored on a regular basis by the departmental Committee on Postdoctoral Studies. Students will be apprised in writing of any deficiency and, when indicated, placed on probation by the Dean. In such cases that the Committee on Postdoctoral Studies determines that improvement has not been achieved in a particular area cited, dismissal will be recommended.

Probation and Dismissal

A student whose average falls below B (3.0) will be placed on academic probation by the Dean upon recommendation of the departmental Committee on Postdoctoral Studies of the appropriate program. Additionally, a student will be placed on academic probation for any one of the following: a final grade of F, D, or U during any one grading period.

A student placed on academic probation will be given written notification by the Dean of such status. This notification will serve as an official warning to the student that her or his academic performance is below standard and continuation in the postgraduate program is in jeopardy. Upon the student’s successful correction of all D, F, and U grades, 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 by the departmental Committee on Postdoctoral Studies.

A student will be subject to dismissal 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. Academic dismissal will be recommended by the Committee on Postdoctoral Studies for consideration by the Advanced Education Committee. The student may request permission to appear before the Advanced Education Committee 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.

Failure of the student to demonstrate the intellectual, ethical, and behavioral attributes prerequisite to meeting the responsibilities for patient care are grounds for dismissal from the postgraduate program.

Leave of Absence

Permission for a leave of absence from a postgraduate program for a maximum period of one year may be granted by the Dean upon the recommendation of the Advanced Education Committee. Such permission will be granted only for extenuating circumstances and indicates the student will be allowed to return to the program within the one-year limit.

The student must submit a written request for leave to the Chairman of the departmental Committee on Postdoctoral Studies. The request is then forwarded with appropriate endorsements to the Advanced Education Committee, the Associate Dean for Student Affairs, and the Dean for approval. The grading symbol I (incomplete) will be recorded for each course not completed, and the student will be required to complete these courses as soon as they are offered after the student’s return.

Withdrawal

Permission to withdraw from a postgraduate program may be granted by the Associate Dean for Student Affairs upon written request by the student and upon recommendation of the departmental Committee on Postdoctoral Studies of the student’s program. In the case of withdrawal before the end of the term (and thus the dropping of all courses), the grading symbol WP or WF will be recorded for each course not completed, depending upon the student’s standing on the last day of enrollment. In the case of a student’s withdrawal at the end of the term, the appropriate grading symbol will be recorded for each course completed.

An application for readmission by a student who has withdrawn is subject to the same requirements, procedures, and acceptance considerations that apply to first-time applicants.

Graduation

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.

M.D. degrees are awarded through the UTHSCSA Medical School at the end of the third year of the OMS (Oral & Maxillofacial Surgery) program.

Financial Information

Tuition information for resident and nonresident stu-
Compensation
Postdoctoral students may receive stipends on a year-to-year basis, depending upon funds available. Program directors will provide current information.

Curriculum
The curriculum for the certificate programs is designed to give students the opportunity to develop clinical judgment and skills necessary to provide comprehensive patient care, broader in scope and greater in depth than that offered by undergraduate programs. Biomedical sciences relevant to each specialty are integrated to facilitate correlation of biological, pathological, behavioral, and clinical disciplines.

The offerings of each program are designed to meet the formal education requirements for eligibility to take the certifying examinations of the American Board of Periodontics, American Board of Endodontics, American Board of Pediatric Dentistry, American Board of Prosthodontics, American Board of Oral Medicine, and American Board of Oral and Maxillofacial Radiology. The faculty is composed of members of the Dental School clinical and basic science teaching staffs.

The curriculum for the master’s programs is also provided in this section. For the degree programs in Dental Diagnostic Science, Periodontics, Endodontics, and Prosthodontics the curriculum for the first two years is identical to that of the certificate program with, in some cases, additional teaching and research. An additional 6 (six) months or longer are required for graduate degree students who must also complete a thesis.

Multidisciplinary Courses
The five certificate programs have in common many basic science courses as well as some dental courses. Descriptions of multidisciplinary courses follow the outlines of the five programs.

Dental Diagnostic Science
Certificate Program

First Year

<table>
<thead>
<tr>
<th>Credit Hours</th>
<th>(15.0)</th>
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<tbody>
<tr>
<td>Summer (minimum semester hours: 6.0)</td>
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</tr>
<tr>
<td>DIAG 5012 Practicum in Clinical Radiology</td>
<td>0.5</td>
</tr>
<tr>
<td>DIAG 5024 Plain Film Radiography and Anatomy</td>
<td>1.0</td>
</tr>
<tr>
<td>DIAG 5044 Radiation Physics Lab</td>
<td>0.5</td>
</tr>
<tr>
<td>DIAG 5045 Radiation Physics</td>
<td>1.0</td>
</tr>
<tr>
<td>* ORTH 5094 Research Methodology</td>
<td>1.5</td>
</tr>
<tr>
<td>PEDO 5026 Orthodontics</td>
<td>1.5</td>
</tr>
<tr>
<td>[6.0]</td>
<td></td>
</tr>
<tr>
<td>Fall (minimum semester hours: 15.0)</td>
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</tr>
<tr>
<td>DIAG 5015 Panoramic Radiology</td>
<td>0.5</td>
</tr>
<tr>
<td>DIAG 5070 Supervised Teaching</td>
<td>1.0</td>
</tr>
<tr>
<td>* PATH 5121 Biostatistics</td>
<td>1.0</td>
</tr>
<tr>
<td>* PATH 5035 Oral Pathology</td>
<td>2.0</td>
</tr>
<tr>
<td>* INTD 5020 Dental Biomedical Core Course</td>
<td>4.0</td>
</tr>
<tr>
<td>DIAG 5045 Radiation Physics</td>
<td>1.0</td>
</tr>
<tr>
<td>DIAG 5044 Radiation Physics Lab</td>
<td>0.5</td>
</tr>
<tr>
<td>DIAG 5091 Case Conference</td>
<td>1.0</td>
</tr>
<tr>
<td>DIAG 5017 Literature Review</td>
<td>1.0</td>
</tr>
<tr>
<td>DIAG 5012 Practicum in Clinical Radiology</td>
<td>3.0</td>
</tr>
<tr>
<td>[15.0]</td>
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<tr>
<td>Elective:</td>
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<tr>
<td>DIAG 5012 Practicum in Clinical Radiology</td>
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Second Year

<table>
<thead>
<tr>
<th>Credit Hours</th>
<th>[12.0]</th>
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<tbody>
<tr>
<td>Spring (minimum semester hours: 12.0)</td>
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</tr>
<tr>
<td>DIAG 5026 Oral and Maxillofacial Radiology Interpretation</td>
<td>2.0</td>
</tr>
<tr>
<td>DIAG 5019 Digital Imaging</td>
<td>1.0</td>
</tr>
<tr>
<td>DIAG 5007 Graduate Oral and Maxillofacial Radiology Clinic</td>
<td>3.0</td>
</tr>
<tr>
<td>DIAG 5016 Head and Neck Anatomy</td>
<td>1.0</td>
</tr>
<tr>
<td>DIAG 5070 Supervised Teaching</td>
<td>1.0</td>
</tr>
<tr>
<td>* INTD 5021 Dental Biomedical Core Course</td>
<td>1.0</td>
</tr>
<tr>
<td>* PATH 5030 Oral Histopathology</td>
<td>1.0</td>
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<tr>
<td>DIAG 5091 Case Conference</td>
<td>1.0</td>
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<tr>
<td>DIAG 5017 Literature Review</td>
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<td>[12.0]</td>
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<tr>
<td>Electives:</td>
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<tr>
<td>DIAG 5181 Principles of Forensic Odontology</td>
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<tr>
<td>DIAG 5012 Practicum in Clinical Radiology</td>
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Second Year

<table>
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<tr>
<th>Credit Hours</th>
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<tr>
<td>DIAG 6007 Graduate Oral and Maxillofacial Radiology Clinic</td>
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*Multidisciplinary course*
**Advanced Dental Education Programs — Dental School**

**Fall (minimum semester hours: 11.0)**

<table>
<thead>
<tr>
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<th>Course Title</th>
<th>Credit Hours</th>
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<tbody>
<tr>
<td>DIAG 6027</td>
<td>Advanced Imaging Physics</td>
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<tr>
<td>DIAG 6025</td>
<td>Oral and Maxillofacial Radiology Interpretation</td>
<td>2.0</td>
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<tr>
<td>DIAG 6007</td>
<td>Graduate Oral and Maxillofacial Radiology Clinic</td>
<td>3.0</td>
</tr>
<tr>
<td>DIAG 6071</td>
<td>Supervised Teaching</td>
<td>1.0</td>
</tr>
<tr>
<td>DIAG 6041</td>
<td>Basic Radiation Biology</td>
<td>1.0</td>
</tr>
<tr>
<td>DIAG 6018</td>
<td>OMR Case Conference</td>
<td>1.0</td>
</tr>
<tr>
<td>DIAG 6017</td>
<td>Literature Review</td>
<td>1.0</td>
</tr>
<tr>
<td>* DIAG 6097</td>
<td>Research</td>
<td>1.0</td>
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**Electives:**

<table>
<thead>
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<th>Course Title</th>
<th>Credit Hours</th>
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<tr>
<td>INTD 670</td>
<td>Teaching Skills</td>
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<tr>
<td>DIAG 6075</td>
<td>Practicum in Clinical Radiology</td>
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**Spring (minimum semester hours: 10.0)**

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<th>Course Title</th>
<th>Credit Hours</th>
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<tbody>
<tr>
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<td>Graduate Oral and Maxillofacial Radiology Clinic</td>
<td>3.0</td>
</tr>
<tr>
<td>DIAG 6018</td>
<td>OMR Case Conference</td>
<td>1.0</td>
</tr>
<tr>
<td>DIAG 6040</td>
<td>Advanced Oral and Maxillofacial Radiology Interpretation</td>
<td>2.0</td>
</tr>
<tr>
<td>DIAG 6071</td>
<td>Supervised Teaching</td>
<td>1.0</td>
</tr>
<tr>
<td>DIAG 6017</td>
<td>Literature Review</td>
<td>1.0</td>
</tr>
<tr>
<td>DIAG 6043</td>
<td>Advanced Radiation Biology</td>
<td>1.0</td>
</tr>
<tr>
<td>* DIAG 6097</td>
<td>Research</td>
<td>1.0</td>
</tr>
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</table>

**Electives:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>DIAG 6021</td>
<td>Medical Radiology Rotation</td>
<td>2.5</td>
</tr>
<tr>
<td>DIAG 6020</td>
<td>Tumor Board</td>
<td>1.0</td>
</tr>
<tr>
<td>DIAG 6075</td>
<td>Practicum in Clinical Radiology</td>
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**THIRD YEAR Continued**

**Summer (minimum semester hours: 6.0)**

<table>
<thead>
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<tbody>
<tr>
<td>DIAG 6007</td>
<td>Graduate Oral and Maxillofacial Radiology Clinic</td>
<td>3.0</td>
</tr>
<tr>
<td>* DIAG 6097</td>
<td>Research</td>
<td>1.0</td>
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**Electives:**

<table>
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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>DIAG 6021</td>
<td>Medical Radiology Rotation</td>
<td>2.5</td>
</tr>
<tr>
<td>DIAG 6020</td>
<td>Tumor Board</td>
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</tr>
<tr>
<td>DIAG 6075</td>
<td>Practicum in Clinical Radiology</td>
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**Fall (minimum semester hours: 9.0)**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
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<tbody>
<tr>
<td>DIAG 6040</td>
<td>Advanced Oral and Maxillofacial Radiology Interpretation</td>
<td>2.0</td>
</tr>
<tr>
<td>DIAG 6007</td>
<td>Graduate Oral and Maxillofacial Radiology Clinic</td>
<td>3.0</td>
</tr>
<tr>
<td>DIAG 6071</td>
<td>Supervised Teaching</td>
<td>1.0</td>
</tr>
<tr>
<td>DIAG 6018</td>
<td>OMR Case Conference</td>
<td>1.0</td>
</tr>
<tr>
<td>DIAG 6017</td>
<td>Literature Review</td>
<td>1.0</td>
</tr>
<tr>
<td>* DIAG 6097</td>
<td>Research</td>
<td>1.0</td>
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**Electives:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>DIAG 6021</td>
<td>Medical Radiology Rotation</td>
<td>2.5</td>
</tr>
<tr>
<td>DIAG 6075</td>
<td>Practicum in Clinical Radiology</td>
<td>0–4.0</td>
</tr>
<tr>
<td>DIAG 6020</td>
<td>Tumor Board</td>
<td>1.0</td>
</tr>
</tbody>
</table>

**Total Credits for Master of Science Degree Program 91.5**

The following are special electives and are available on an individual basis:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>DIAG 5014</td>
<td>Physical Evaluation I</td>
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</tr>
<tr>
<td>DIAG 5018</td>
<td>Practicum in Oral Medicine</td>
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</tr>
<tr>
<td>DIAG 6005</td>
<td>Clinical Pathology Conference</td>
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<tr>
<td>DIAG 6008</td>
<td>Orofacial Pain</td>
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<tr>
<td>DIAG 6009</td>
<td>Noninfectious Diseases of the Oral Mucosa</td>
<td></td>
</tr>
<tr>
<td>DIAG 6016</td>
<td>Pharmacotherapeutics</td>
<td></td>
</tr>
<tr>
<td>DIAG 6019</td>
<td>Chemosensory Disorders and Salivary Gland Dysfunction</td>
<td></td>
</tr>
<tr>
<td>DIAG 6022</td>
<td>Practicum in Oral Medicine</td>
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<td>DIAG 6072</td>
<td>Supervised Teaching</td>
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<td>DIAG 6135</td>
<td>Clinical Case Conference I &amp; II</td>
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<td>DIAG 6060</td>
<td>Physical Anthropology</td>
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<td>DIAG 6061</td>
<td>Forensic Anthropology</td>
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*Multidisciplinary course*
DIAG 6002 Advanced Forensic Anthropology Lab
DIAG 6084 Advanced Forensic Odontology Lab
DIAG 6085 Forensic Pathology
DIAG 6086 Forensic Dental Photography Lab

Special Electives
The following special electives are available on an individual basis:
DIAG 5014 Physical Evaluation
DIAG 5018 Practicum in Oral Medicine
DIAG 6005 Clinical Pathology Conference
DIAG 6008 Orofacial Pain
DIAG 6009 Noninfectious Diseases of the Oral Mucosa
DIAG 6016 Pharmacotherapeutics
DIAG 6019 Chemosensory Disorders and Salivary Gland Dysfunction
DIAG 6022 Practicum in Oral Medicine
DIAG 6072 Supervised Teaching
DIAG 6135 Clinical Case Conference
DIAG 6060 Physical Anthropology
DIAG 6061 Forensic Anthropology
DIAG 6062 Advanced Forensic Anthropology Lab
DIAG 6084 Advanced Forensic Odontology Lab
DIAG 6085 Forensic Pathology
DIAG 6086 Forensic Dental Photography Lab

Course Descriptions
Courses unique to the program in Dental Diagnostic Science are listed below. Offerings which are common to one or more programs are described under “Multidisciplinary Courses.” Special Elective courses are described in the next section.

DIAG 5007/6007 Graduate Oral and Maxillofacial Radiology Clinic
1.0 Semester Credit Hour
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 5014 Physical Evaluation
1.5 Semester Credit Hours
The curriculum for physical evaluation includes didactic and clinical experience in obtaining and interpreting a patient history; extraoral and intraoral physical examination procedures; interpretation of the findings of the examination; obtaining and interpreting appropriate clinical laboratory examinations; communication with health care professionals, risk status assessment, and documentation.

DIAG 5014 Practicum in Oral Medicine
1.0 Semester 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 5018 Practicum in Oral Medicine
4.0 Semester 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 which 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 extraoral 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
1.0 Semester Credit Hour
This survey course is designed to give the maxillofacial radiology resident the opportunity to gain 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 5024 Plain Film Radiography and Anatomy
1.0 Semester Credit Hour
This course is the first in the series of didactic and clinical courses aimed at providing the student with the opportunity to gain in-depth knowledge of oral and maxillofacial radiographic anatomy, and proficiency in routine and special OMF imaging procedures. The first course has the emphasis in proficiency level learning of the techniques used in conventional plain film radiography and tomography and in the learning of the radiographic anatomy as it appears in these plain films. The course consists of a complete review of plain film techniques used in OMFRadiography 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. The student will have the opportunity to learn to recognize the changing appearance of anatomical structures with different x-ray projections, and will have the opportunity to learn how to correct for the errors in projections. Bony anatomy and organ-based anatomy will be reviewed.

DIAG 5025 Panoramic Radiology
0.5 Semester Credit Hours
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 5026 Oral and Maxillofacial Radiology Interpretation
2.0 Semester Credit Hours
This lecture course is presented over several semesters. The goal 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 5091/5092/5093/6090/6091/6093/6094/6095
Diagnostic Science Seminar
Variable
Presentations, reviews, and discussion of current cases from the Dental Diagnostic Science Clinic as well as cases of interest from the teaching file is the format for this course.

DIAG 5017/6017 Literature Review
1.0 Semester Credit Hour
Articles from the dental, medical, and basic science literature are reviewed and critically evaluated. The purposes of this course are to maintain current awareness, review classic articles, learn use of information resources, and evaluate research methods.

DIAG 5045 Radiation Physics
1.0 Semester Credit Hour
This 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 protection, principles of tomography, and panoramic radiography.

DIAG 5044 Radiation Physics Lab
0.5 Semester Credit Hour
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 5070/6071 Supervised Teaching
1.0–2.0 Semester 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 is provided by the graduate faculty.

DIAG 6135 Clinical Case Conference I and II
1.0 Semester 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 5091 Case Conference
1.0 Semester 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 5181 Principles in Forensic Odontology
1.0 Semester 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 required for the MS degree.)

DIAG 6008 Orofacial Pain
2.0 Semester 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 intraoral pain, differential diagnosis and management of temporomandibular disorders, and differential diagnosis and management of mental disorders.

DIAG 6009 Noninfectious Diseases of the Oral Mucosa
2.0 Semester 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 6018 OMR Case Conference
1.0 Semester 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 6022 Practicum in Oral Medicine
6.0 Semester 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 which 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 extraoral 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 6023 Radiology for Graduate Orthodontics
1.5 Semester Credit Hours
The goal of this course is to prepare the Orthodontic graduate student for contemporary practice in the area of radiology.

DIAG 6025 Oral and Maxillofacial Radiology Interpretation
2.0 Semester Credit Hours
This lecture course is presented over several semesters. The goal 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 6027 Advanced Imaging Physics**  
*1.0 Semester Credit Hour*

This course is a continuation of the basic Radiation Physics course that was 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 6040 Advanced Oral and Maxillofacial Radiology Interpretation**  
*2.0 Semester Credit Hours*

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 is conducted over multiple semesters and meets in two-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 6041 Basic Radiation Biology**  
*1.0 Semester 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**  
*1.0 Semester 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 6016 Pharmacotherapeutics**  
*2.0 Semester Credit Hours*

This course is designed to discuss general principles of pharmacology as they relate to the clinical use of drugs 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.

**PATH 5121 Biostatistics**  
*1.0 Semester 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.

**PEDO 5026 Orthodontics I**  
*1.5 Semester Credit Hours*

The goal of this course is to prepare the Radiology graduate student for contemporary practice in the area of orthodontic aspects of oral and maxillofacial radiology.

**Special Elective Course Descriptions**

Electives are offered on a regular and/or variable basis pending availability of faculty.

**DIAG 5181 Principles in Forensic Odontology**  
*1.0 Semester 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.

**DIAG 5012/6075 Practicum in Clinical Radiology**  
*Variable Semester Credit Hours*

This course will be offered during each semester of the three-year program. The practicum consists of clinical radiology service involving all aspects of Oral and Maxillofacial Radiology and didactic sessions introducing basic concepts of image interpretation and imaging techniques. Patients are seen in the Tertiary Care Radiology Clinic that provides radiology services to the Dental School and surrounding professionals on a referral basis. Proficiency level skills are required in the technical performance and interpretation of all the dental school-based imaging such as intraoral, panoramic and plane film radiography, and OMF tomography. Medical radiology rotations are designed to train the students to be competent in interpretation of CT and MR images of the OMF region, and to be familiar in interpretation of ultrasonic and nuclear medicine images. Studies in image interpretation and normal radiographic anatomy will be emphasized during this course. During the three years of training, rotations are designed to train the student to become competent in the new OMF imaging techniques and procedures, such as planar and 3-dimensional CT image reformations, direct digital radiographic equipment and procedures, digital subtraction radiography and quantitative digital radiography procedures. The students also will have training in the conventional procedures of darkroom quality assurance and film processing.

**DIAG 6005 Clinical Pathology Conference**  
*1.0 Semester 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 6020 Tumor Board**  
*1.0 Semester Credit Hour*

The class meets for one hour once a week in the Medical School or Wilford Hall Medical Center 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**  
**2.5 Semester Credit Hours**  
A minimum of 7.5 semester credit hours are required. Each student must enroll in a minimum of three (3) one-month rotations. 
Medical radiology training occurs within the dental school using image-acquired data from a medical clinic. It also occurs in the University Hospital, the VA hospital on campus, at Wilford Hall Medical Center at nearby Lackland Air Force Base, and in a private radiology clinic. Rotations to other clinics and institutions are being planned at remote sites within the USA and abroad such as in Europe, Asia and/or Africa. Cases using advanced imaging are available in the program director's extensive collection to further enhance medical radiology training.

**DIAG 6062 Advanced Forensic Anthropology Lab**  
**0.5 Semester Credit Hour**  
Practice in the application of laboratory skills in anthropology through the facilities of the Center for Archeological Research at The University of Texas at San Antonio, the U. S. Army Central Identification Laboratory in Hawaii, the Oklahoma State Medical Examiner’s Office, the Southwest Foundation for Biomedical Research, and other locations. Students are expected to develop selective skills related to their areas of interest within the field.

**DIAG 6084 Advanced Forensic Odontology Lab**  
**Variable Credit Hours**  
Advanced practice in the laboratory and field skills in forensic odontology in the areas of routine identifications, mass disaster preparedness and management, bite mark evidence and analysis, child abuse detection, and jurisprudence. Students are “on call” to do cases as needed and introduced to new and innovative teachings in the field. Students are allowed to develop selective skills related to their areas of interest.

**DIAG 6060 Physical Anthropology**  
**1.0 Semester Credit Hour**  
This lecture and laboratory course examines the morphology of the human cranial and postcranial skeleton, skeletal biology, osteogenesis, and skeletal variation. The student will have the opportunity to become proficient in distinguishing human from nonhuman bones and in identifying bone fragments relevant to forensic investigation.

The human skeleton will be examined in evolutionary perspective with emphasis on comparisons with nonhuman primates and earlier human forms.

**DIAG 6061 Forensic Anthropology**  
**1.0 Semester Credit Hour**  
A study of the application of basic anthropology to forensic situations is the focus of this course. Specific emphasis is placed on osteobiography, scene investigation, determination of the time of death, basic anthropologic variables of identification, individualization, and cause and manner of death.

**DIAG 6086 Forensic Dental Photography Lab**  
**0.5 Semester Credit Hour**  
This lecture and laboratory course is designed to acquaint the student with dental photography in the morgue setting, studio and darkroom procedures necessary for special photographic techniques, and the preparation of appropriate case exhibits for the courtroom.

**DIAG 6083 Forensic Odontology Lab**  
**1.0 Semester 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 50181 Principles in Forensic Odontology** and this course will fulfill requirements for membership in the American Academy of Forensic Sciences.

**DIAG 6085 Forensic Pathology**  
**0.5 Semester Credit Hour**  
In this practical lecture and laboratory course, students are concerned with the medicolegal investigation of injury and death. Special emphasis is placed on the medical examiner/coroner system, criteria for death, the medicolegal autopsy, forensic toxicology, and the medicolegal autopsy report.

**DIAG 6019 Chemosensory Disorders and Salivary Gland Dysfunction**  
**2.0 Semester 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.
Endodontics
Certificate Program

FIRST YEAR

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<th>Credit Hours</th>
<th>Course Descriptions</th>
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**SECOND YEAR**

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<td>Total Credits for the Certificate Program 94.0</td>
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**Total Credits for the Master’s Degree Program 117.0**

**Course Descriptions**
Courses unique to the program in Endodontics are listed below. Offerings which are common to one or more programs are described under “Multidisciplinary Courses.”

ENDO 6052 Endodontic Surgical Anatomy
1.5 Semester Credit Hours
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 prosected 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 5015  Dental Photography  
*0.5 Semester Credit Hour*  
This course is designed to expose the student to the principles of effective dental photography. Students are given the opportunity to make clinical photographs which are critiqued in class.

ENDO 5020  Introduction to Advanced Endodontics  
*2.5 Semester 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.

ENDO 5073/5074/6073/6074  
Literature Review I & II  
*1.0–4.0 Variable Credit Hours*  
These courses are 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 5010/5011/6010/6011/6012/6013/6014  
Clinical Endodontics I, II, & III  
*Variable 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 5017/5018  
Clinical Seminar  
*Variable 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.

ENDO 5075/6076  
Current Literature Review  
*0.5–1.0 Variable 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 6031/6032  
Hospital Endodontics Rotation  
*1.0 Semester Credit Hour*  
Conducted at the Audie L. Murphy Memorial Veterans Affairs Hospital, 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 5080/5081/5082/6083/6084/6085/6086/6087  
Endodontic Case Presentations I, II, & III  
*Variable Credit Hours*  
These courses are 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 5071/6071  Supervised Teaching I & II  
*1.0 Semester 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 6060  Pulp Biology and Pain Pharmacology  
*1.5 Semester Credit Hours*  
This purpose of this course is to provide the solid foundation knowledge in the biology of dental pulp and periradicular tissues that is 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.
Pediatric Dentistry Certificate Program

FIRST YEAR

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<tr>
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<tr>
<td>PEDO 5026 Orthodontics I</td>
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<td>PEDO 6030 Orthodontics V</td>
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<tr>
<td>PEDO 6025 Pediatric Dentistry &amp; Orthodontics Clinic VI</td>
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<td><strong>Total Credits for the Certificate Program</strong></td>
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</table>

Course Descriptions

Courses unique to the program in Pediatric Dentistry are listed below. Offerings which are common to one or more programs are described under “Multidisciplinary Courses.”

PEDO 5042 Pediatric Dentistry I

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 II

This course is largely a continuation of lectures and seminars on the subject matter introduced in PEDO 5042 Pediatric Dentistry I but also adds case conferences and current literature seminars.

PEDO 5044 Pediatric Dentistry III

In part, this is a continuation of some lecture and seminar topics from PEDO 5043 Pediatric Dentistry II. 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 5091 Special Topics

This special topics course will include advanced didactic education in pharmacology and conscious sedation accompanied with a strong clinical component. Additional clinical technique procedures, predominantly practiced for children will be included with specific clinical cases for appropriate practice applications.

PEDO 6045 Pediatric Dentistry IV

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 6146 Pediatric Dentistry V

This course continues the case conferences, current literature seminars, and pediatric grand rounds of PEDO 6045 Pediatric Dentistry IV, adding craniofacial anomalies seminars.

PEDO 5026 Orthodontics I

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 5027/5028/6029/6030 Orthodontics II, III, IV and V

These seminars consist of a series of selected orthodontic topics which 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.
The postdoctoral program in pediatric dentistry is designed to provide each resident with clinical experience which 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 5051 Pediatric Physical Diagnosis

1.5. Semester Credit Hours

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 6083/6084 Investigative Project

1.0 Semester 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.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
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</thead>
<tbody>
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<td>PERI 6025</td>
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<td>PERI 6073</td>
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<tr>
<td>PERI 6030</td>
<td>Periodontics Lecture Series</td>
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<tr>
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<td>* PERI 670</td>
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<tr>
<td>* DIAG 6016</td>
<td>The Essence of Pharmacology for Dentisticians</td>
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<td>PATH 6026</td>
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### Spring

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### The Master's Degree Program

#### THIRD YEAR

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### Course Descriptions

Courses unique to the program in Periodontics are listed below. Offerings which are common to more than one program are described under “Multidisciplinary Courses.”

**PERI 5031/6030/6031 Periodontics Lecture Series**

*Variable 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 5010/5011/5012/6011/6012 Clinical Periodontics**

*Variable 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 interdisciplin ary cases.

**PERI 5073/6073 Literature Seminar**

*Variable 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 5074/6074 Current Literature**

*1.0 Semester Credit Hour*

Current periodontal literature published during the academic year is discussed in a seminar format.

**PERI 6020 Emergency Care Seminar**

*Variable 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 5025/6025 Case Presentation Seminar**

*1.0 Semester Credit Hour*

Following the format set by the American Board of Periodontology, 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 5075/6075 Mock Board Exams**

*0.5 Semester Credit Hour*

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.

* Multidisciplinary course

** Certificate is minus Thesis of 4 hours
### Prosthodontics Certificate Program

#### FIRST YEAR

<table>
<thead>
<tr>
<th>Credit</th>
<th>Hours</th>
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<td>PROS 5031</td>
<td>Clinical Prosthodontics I</td>
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<tr>
<td>PROS 5015</td>
<td>Concepts of Occlusion</td>
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<tr>
<td>* ORTH 5094</td>
<td>Research Methodology I</td>
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<tr>
<td>PROS 5097</td>
<td>Research</td>
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<td>Fall</td>
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<tr>
<td>* PATH 5121</td>
<td>Biostatistics</td>
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<td>PROS 5032</td>
<td>Clinical Prosthodontics I</td>
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<tr>
<td>* INTD 5020</td>
<td>Dental Biomedical Core Course</td>
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<td>* PROS 5050</td>
<td>Endosseous Dental Implants</td>
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<td>Implant Prosthodontics</td>
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<td>Oral Pathology</td>
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<td>* PROS 5097</td>
<td>Research</td>
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<tr>
<td>* PROS 5067</td>
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<td>* INTD 5013</td>
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<td>PROS 5049</td>
<td>Overview to Maxillofacial Prosthodontics</td>
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<tr>
<td>PROS 5033</td>
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<tr>
<td>* ENDO 5060</td>
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<td>PROS 5072</td>
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<tr>
<td>RESD 6021</td>
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#### SECOND YEAR

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<td>PROS 6032</td>
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<td>PROS 6021</td>
<td>Advanced Prosthodontics II</td>
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<td>Literature Seminar II</td>
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<td>PROS 6046</td>
<td>Oral &amp; Maxillofacial Surgery/Prosthodontics Seminar</td>
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<tr>
<td>* PROS 6097</td>
<td>Research</td>
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<td>* PROS 6069</td>
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<td>* INTD 6014</td>
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<td>Clinical Geriatric Dentistry</td>
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<tr>
<td>PROS 6031</td>
<td>Clinical Prosthodontics II</td>
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*Multidisciplinary course*
PROS 6074 Literature Seminar II 1.0
PROS 6046 Oral & Maxillofacial Surgery/Prosthodontics Seminar 0.5
*PROS 6097 Research 2.0
*PROS 6070 Supervised Teaching 2.0
*INTD 6014 Perio/Prosth/Endo/Ortho Seminar II 1.0
Total Semester Hours 12.0

THIRD YEAR

Summer

PROS 6032 Clinical Prosthodontics III 4.0
*PROS 6097 Research 2.0
Total Semester Hours 6.0

Fall

PROS 6032 Advanced Prosthodontics III 2.0
PROS 6033 Clinical Prosthodontics III 2.5
PROS 6076 Literature Seminar III 1.0
PROS 6047 Oral & Maxillofacial Surgery/Prosthodontics Seminar 0.5
*PROS 6097 Research 2.0
*PROS 6071 Supervised Teaching 2.0
PROS 6035 Maxillofacial Prosthodontics 1.0
*INTD 6115 Perio/Prosth/Endo/Ortho Seminar III 1.0
Total Semester Hours 12.0

Spring

PROS 6032 Advanced Prosthodontics III 2.0
PROS 6034 Clinical Prosthodontics III 3.5
PROS 6047 Oral & Maxillofacial Surgery/Prosthodontics Seminar 0.5
*PROS 6097 Research 2.0
*PROS 6071 Supervised Teaching 2.0
PROS 6076 Literature Seminar III 1.0
*INTD 6115 Perio/Prosth/Endo/Ortho Seminar III 1.0
*PROS 6098 Thesis 4.0
Total Semester Hours 16.0

The Master’s Degree Program

The curriculum is identical for the Certificate and Master’s programs, with the exception of one course, PROS 6089 Thesis, which is taken the spring semester of the third year.

Course Descriptions

Courses unique to the program in Prosthodontics are listed below. Offerings which are common to one or more programs are described under “Multidisciplinary Courses.”

PROS 5031/6032 Clinical Prosthodontics
Variable Credit Hours
The objective of these courses is to provide extensive clinical experience in the broad spectrum of prosthodontics on a graduated basis.

*Multidisciplinary course
1Master’s program

Each postdoctoral student will have the opportunity to maintain a comprehensive prosthodontic practice involving fixed, removable, and implant treatment procedures.

PROS 5072/6073/6074/6075/6076 Literature Seminar
1.0 Semester Credit Hour
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 6021/6022/6023/6024 Advanced Prosthodontics
Variable Credit Hours
These courses are 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.

RESD 5049 Overview to Maxillofacial Prosthodontics
0.5 Semester Credit Hour
This course introduces the graduate student to the discipline of maxillofacial prosthetics. Emphasis is placed on treating patients requiring prosthetic devices in the head and neck area due to surgery or trauma.

RESD 6021 Advanced Dental Materials
2.5 Semester 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.

PROS 5053 Implant Prosthodontics
1.5 Semester Credit Hours
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 5015 Concepts of Occlusion
1.0 Semester Credit Hour
Various concepts of occlusion with special emphasis on the clinical application of gnathology is the focus of this course. The laboratory phase includes the development of a functional occlusion through the cusp-fosa additive wax method and an occlusal equilibration technique.

PROS 6046/6047 Oral & Maxillofacial Surgery/Prosthodontics Patient Management Seminar
2.0 Semester Credit Hours
A seminar devoted to the discussion and coordination of treatments of patients under joint management of the Oral & Maxillofacial Surgery and Prosthodontics departments.

PROS 6043 Clinical Geriatric Dentistry
1.0 Semester Credit Hour
This course offers prosthodontic residents didactic and clinical experience treating geriatric patients.

PROS 6035 Maxillofacial Prosthodontics
1.0 Semester Credit Hour
This clinical course provides experience treating patients on the Maxillofacial Prosthetics Service. Patients with congenital and acquired defects are treated under supervision of the maxillofacial prosthodontic faculty.
Multidisciplinary Courses
The following are basic science and multidisciplinary courses common to the curriculum of two or more programs:

INTD 5020/5021 Dental Biomedical Core Courses
1.0/4.0 Semester Credit Hours
A multidisciplinary review of the interaction between basic and dental clinical science is provided in these two courses.

PATH 5035 Oral Pathology
2.0 Semester 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.

ANES 6081 Anesthesia Rotation
3.0 Semester Credit Hours
The physiology and psychology of pain and its control, along with pharmacology for pain control, is the focus of this rotation. The techniques of general anesthesia, intravenous, and nitrous oxide sedation are presented in lectures, discussed in seminars, and demonstrated. Application of techniques is performed under supervision. Special attention is given to the management of emergencies and the apprehensive patient.

DIAG 6005/6006 Clinical Pathological Conference
2.0 Semester Credit Hours
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 is presented for group discussion with a view toward obtaining a differential diagnosis.

COMD 5024 Clinical Nutrition
0.5 Semester Credit Hour
Current concepts about nutrition as it relates to general health and oral health will be considered. The role of nutrition in the etiology of general and oral disease is emphasized.

DIAG 5050 Fundamentals of Dental Radiology
1.0 Semester 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.

ENDO 5060 Current Concepts in Endodontics
1.0 Semester Credit Hour
Modern thoughts and concepts in endodontics will cover diagnosis, the dental pulp and periapex, pulpalgia, and referred pain; vital pulp therapy; treatment of the acute apical abscess, cellulitides, restorative considerations for the endodontically treated tooth, endodontic surgery, and the cracked tooth. Other topics include avulsions, endodontic-periodontic interrelationships, current concepts in endodontics and an overview of endodontic research.

ORTH 5094 Research Methodology I
1.5 Semester 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.

RESD 5095 Research Methodology II - Development of a Thesis Proposal
0.5 Semester Credit Hour
This course is a continuation of ORTH 5094 Research Methodology I.

DIAG, ENDO, PEDO, PERI, PROS 5067/5068/6069/5071/6071/6070/6072 Supervised Teaching
1.02.0 Semester 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 is provided by the graduate faculty.

DIAG, ENDO, PATH, PEDO, PERI, PROS 5097/6097 Research
Variable 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.

PERI 5052 Surgical Anatomy
1.0 Semester Credit Hour
This didactic and laboratory course provides a student with an overview of head and neck anatomy. Specific sessions address concerns in the maxilla and mandible for the placement of osseointegrated implants. A prosection review in human specimen dissection is completed in the anatomy laboratory.

INTD 5013/6014/6115 Periodontic/Prosthodontic Seminar
6.0 Semester Credit Hours
A seminar which brings together the residents and graduate staff from the periodontic, prosthodontic, and endodontic 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 5067 Introduction to Computational and Systems Biology
1.0 Semester Credit Hour
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, 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, chemo informatics, molecular modeling, mathematical model building.

DIAG, ENDO, PATH, PERI, PROS 6098 Thesis
Variable Credit Hours
Prerequisite: Admission to candidacy for the Master of Science degree. Completion of an acceptable thesis is required for the Master of Sci-
ence degree. Registration in this course for at least one semester is required of all degree candidates.

PATH 5030   Oral Histopathology
1.0 Semester Credit Hour
The clinical approach to diagnosis of oral diseases through clinicopathologic correlations is emphasized in this course. The cause of various clinical presentations of disease, based upon tissue and cellular changes, is discussed and demonstrated. A variety of oral diseases of soft and hard tissues are presented using projected Kodachrome® slides, a microscope-closed circuit television setup and computer aided software programs. Each student has ample opportunity to sharpen diagnostic skills and minimize diagnostic errors by the utilization of clinical history, visual observation and the study of microscopic tissue changes.

PROS 5050   Endosseous Dental Implants
1.5 Semester Credit Hours
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.

GEND 5027   Pain Control and Sedation
4.0 Semester 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.

PATH 6026   Surgical Oral Pathology I
1.0 Semester 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 are discussed. Students include those from Oral and Maxillofacial Surgery, Periodontics, Endodontics, and Dental Diagnostic Sciences.

PATH 6027   Surgical Oral Pathology
1.0 Semester Credit Hour
This course is a continuation of PATH 6026 Surgical Oral Pathology. It is presented in the second 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 are discussed. Students include those from Oral and Maxillofacial Surgery, Periodontics, Endodontics and Dental Diagnostic Sciences.

INTD 6070   Teaching Skills for Dental Educators
1.5 Semester Credit Hours
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.

RESD 6190   Interdisciplinary Seminar
1.0 Semester 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.

SELC 7090   Air Abrasion in Dentistry
0.5 Semester Credit Hour
This is a course on the uses of air abrasion technology. It is designed to better prepare students to use the technology in the clinic.

Associated Programs
Advanced Education in General Dentistry
The Advanced Education in General Dentistry (AEGD) program is designed to offer intensive clinical and didactic training in comprehensive care of the dental patient with complex problems. Administered by the Department of General Dentistry, the AEGD involves the direct delivery of advanced dental care in each of the dental specialties through the Health Science Center’s dental clinic as well as extramural sites. AEGD residents work closely with residents of the General Practice Residency program and share a common clinic facility, clinical faculty, and some didactic courses. The AEGD and General Dentistry Residency programs are designed to complement each other as they share similar but differing objectives.

The curriculum is intended to provide the scientific basis for dental practice and to develop the residents’ skill in lecture preparation and presentation. In the year of training, the resident spends more than 300 clock hours in seminar, lecture, and presentation courses that cover each of the specialty areas of dentistry. Courses are designed at the postdoctoral level to complement the clinical experiences residents will encounter and the treatments they will be providing. Residents participate as educators/audience for presentations which are required in many of the courses. Clinical faculty of the AEGD are integrally involved in the major portion of the didactic component as course directors and lecturers. In some courses, AEGD residents participate alongside specialty students. Residents are afforded time to attend continuing education offerings at the Health Science Center.

Clinical training begins in July. Patient assignment to residents is closely managed to assure each resident a broad mix of treatment experiences. Comprehensive treatment of complex cases is required of each resident, although residents are also allowed to seek assignment of patients requiring treatment appropriate to her/his specific educational needs or aims. For 35 hours each week, residents provide care in the Advanced General Dentistry Clinic to patients; a substantial proportion of the patients are medically, mentally, and/or physically compromised. Four-handed dentistry is stressed as are other aspects of dentistry necessary for modern private practice. Clinical faculty are general dentists from the Department of General Dentistry, each of whom has received postdoctoral training in general dentistry. Specialty faculty fulfill a major role, providing consultation and supervision.
as needed. The specialty residency clinics serve as a referral both to and from the Advanced General Dentistry Clinic. AEGD residents provide emergency call service to patients of dental students, and the Advanced General Dentistry Clinic. Further clinical experiences are gained through 16 days of rotations at extramural sites.

**General Practice Residency**

The General Practice Residency program offers graduate dentists an opportunity to become broadly competent general practitioners capable of providing comprehensive, state-of-the-art dental care. To accomplish this goal, clinical, educational, and research objectives are addressed. Dental care for the medically compromised patient serves as the framework upon which clinical training is based. Such patients include organ transplant recipients, chemotherapy patients, prosthetic cardiac valve candidates, and individuals with a variety of other medical complications. Treatment of these patients is offered in both inpatient and outpatient settings, with emphasis on the management of their medical problems.

In the hospital environment, the residents' responsibilities include consultations, treatment of inpatients, operating room dentistry, and emergency room dentistry. Complementing this exposure, the outpatient experience allows residents the opportunity to advance their knowledge and clinical skills in all the dental specialties, with continued emphasis on comprehensive care.

Research opportunities are available within the program and throughout the Health Science Center to supplement the clinical exposure. Resident participation in an ongoing or new clinical research project is encouraged. This experience is provided to give residents an appreciation of research design, data analysis, and the publication process. In addition, this exercise is designed to equip residents with the expertise required to judge the merits of future trends and treatment techniques.

Educational experiences are comprised of lectures, seminars, and case presentations given by the residents. Residents are required to develop these presentations (to include outline, bibliography, and audiovisual aids) from literature reviews. The experience is intended to acquaint residents with the organization, preparation, and delivery of a lecture/seminar.

Outpatient dentistry is performed in the Advanced General Dentistry Clinic, with each resident assigned a group of comprehensive care patients. The clinic is comprised of 16 operatories, panoramic and intraoral radiographic capabilities, a waiting room, secretarial office, resident office, break room, and dental laboratory. Oral hygiene care is provided by dental hygienists. The clinic is equipped for both intravenous and inhalation sedation, and complete laboratory facilities are proximate. A small reference library is supported by the exceptionally comprehensive Health Science Center Library. Required rotations include three weeks in general anesthesia, two weeks in the Emergency Center, and two months in the dental clinic at University Hospital.

Applications must be submitted before the deadline, October 15 each year, for the program beginning July 1 and ending June 30 of the succeeding year. Applicants must hold a degree from an accredited North American dental school. The GPR program participates in the Postdoctoral Application Support Service (PASS) (optional) and in the Postdoctoral Dental Matching Program (mandatory). Program applications may be obtained from the Postdoctoral Division of the Department of General Dentistry in the Dental School and submitted directly to the GPR program. Additional information about this residency is available on the division Web site at http://www.dental.uthscsa.edu/educprog/adgpr.html All residents in the program receive a stipend.

**Dental Public Health Residency**

The Department of Community Dentistry offers a one-year, full-time or a two-year, part-time Residency in Dental Public Health. The program, which is accredited by the Commission on Dental Accreditation adheres to the guidelines of the American Board of Dental Public Health and is designed to allow dentists with the Master of Public Health degree or its equivalent to complete the educational requirements for Board Certification as a specialist in Dental Public Health. A stipend and travel costs for South Texas research projects may be available to U.S. citizens and permanent residents.

Public health dentists prevent and control oral diseases and promote oral health through organized community efforts. They are concerned with dental education of the public, with applied dental research, and with administration and operation of group dental care programs, both public and private. The Institute of Medicine has defined the public health mission as “fulfilling society’s interest in assuring conditions in which people can be healthy.” Three broad functions to achieve this are:

- **Assessment**—the regular collection and dissemination of data on oral health status, community needs, and epidemiologic studies.
- **Policy**—the use of the base of scientific knowledge in policy decisions affecting the public’s oral health.
- **Assurance**—of constituents that services necessary to achieve predetermined goals for oral health are available, either by providing them, by assisting and funding others, or by regulation.

Public health dentists and dental hygienists are employed in various health agencies at all levels of government, in the insurance industry, in dental and dental hygiene schools, in schools of public health, in community health centers, in the uniformed services, and in the health industry as consultants.

We encourage dentists to complete the MPH degree at an accredited School of Public Health including the University of Texas SPH programs in San Antonio, Brownsville, El Paso, Dallas, and Houston, and at the Texas Department of Health-Austin, as well as other schools of public health in Texas, such as University of North Texas-Fort Worth and TAMU School of Rural Public Health-Bryan, Texas.
Residents are expected to become competent in overall patient management, including physical diagnosis, fluid and electrolyte administration, medication, and interpretation of laboratory data. Other activities that are used to supplement hospital clinical oral and maxillofacial surgery experience and rotations include a dental school assignment, emergency room duty, special clinics, conferences, and teaching rounds. There is an excellent balance between inpatient admissions and outpatient visits encompassing dentoalveolar surgery; maxillofacial trauma; pathology; and orthognathic, preprosthetic, temporomandibular, and reconstructive surgery. Approximately 450 hospital admissions and 10,000 outpatient procedures are performed annually through the oral surgery clinic at University Hospital, South Texas Medical Center.

While assigned to the Oral and Maxillofacial Surgery service, residents rotate for six months in the Dental School’s outpatient surgery suite. The suite is a fully equipped outpatient operating facility with general anesthesia capabilities. The resident participates in an extensive number and variety of cases that are beyond the capability of undergraduate dental students. These cases include, but are not limited to, impactions, tori, biopsies of oral lesions, implants, scar revision, osteotomies, and fractures. An opportunity for clinical teaching experience with dental students and other dental specialties is provided also.

In the first year, the resident is enrolled in the Medical School (pathophysiology year) for approximately 10 months. When he/she is not in class, the resident participates in oral and maxillofacial surgery rotations. The second year is comprised of clinical clerkships (49 weeks) which are part of the medical curriculum. During this time, the resident/medical student is assigned to medical and surgical rotations. As time permits, he/she also attends conferences and rounds with the oral and maxillofacial service.

In the third year, as a junior resident in oral and maxillofacial surgery, the resident is given increasing clinical responsibility and participates in major surgical procedures. This year is divided between assignments at the nearby Audie L. Murphy Memorial Veterans Hospital (“V.A. Hospital”) and University Hospital, South Texas Medical Center. Four to six months of inpatient anesthesia is also scheduled this year. Upon successful completion of Medical School requirements, the resident is awarded a Doctor of Medicine degree at spring commencement.

During the fourth-year general surgery internship, residents rotate on general surgery services for an opportunity to learn basic surgery techniques and surgical management — particularly pre- and postoperative care. This experience includes general surgery, thoracic surgery, vascular surgery, head and neck surgery, and neurosurgery. Following the successful completion of the internship, the resident is eligible to take the state licensure examination in medicine.

In the fifth year, the resident receives additional training in oral and maxillofacial surgery, progressively receiving more...
and more complex cases. In the fifth year, residents are routinely scheduled to work side by side with senior residents and teaching staff on all major surgeries.

Serving as chief resident in the Oral and Maxillofacial Surgery Service during the sixth year of the program, the resident has increasing latitude for independent action commensurate with her/his knowledge and skills. In addition to performing all aspects of oral and maxillofacial surgery, the resident is responsible for running the oral and maxillofacial surgery services at the Audie L. Murphy Memorial Veterans Hospital and University Hospital.

Each resident is required to participate in research activities during training. While clinical research projects predominate, there is opportunity for basic science research as well. The research effort is expected to result in papers submitted to journals for publication and in abstracts for presentation at professional meetings.

Medical School tuition and fees for the second, third, and fourth year of the program are approximately $7,000 per year.

Additional information about this residency is available from the Division of Oral and Maxillofacial Surgery, Department of Surgery, UTHSCSA.

**Orthodontics**

The Department of Orthodontics offers a 35-month residency for advanced training in orthodontics and dentofacial orthopedics. This program is designed to offer a broad spectrum of clinical and didactic experience in the field. The emphasis of the program is placed on strong clinical and scholarly skills in preparation of the resident for an academic career. Prior to the student’s completion of the program, a Master of Science or Ph.D. program must be completed to accompany the certificate of residency training. The training program will meet the formal requirements for eligibility to take the phase II and phase III portion of the American Board of Orthodontics. For more information call 210-567-3500 or -3510.
## Advanced Dental Education
### Academic Calendar 2005–2006

#### Fall 2005

<table>
<thead>
<tr>
<th>Date</th>
<th>Activity</th>
<th>Student Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monday, May 02, 2005</td>
<td>Web Registration Opens for Fall 2005</td>
<td>All</td>
</tr>
<tr>
<td>Monday, July 04, 2005</td>
<td>*University Holiday (Offices Closed)</td>
<td>All</td>
</tr>
<tr>
<td>Monday, August 29, 2005</td>
<td>1st Class Day</td>
<td>All</td>
</tr>
<tr>
<td>Monday, September 05, 2005</td>
<td>*University Holiday (Offices Closed)</td>
<td>All</td>
</tr>
<tr>
<td>Wednesday, September 14, 2005</td>
<td>Census Day</td>
<td>All</td>
</tr>
<tr>
<td>Thursday, November 24, 2005</td>
<td>*University Holiday (Offices Closed)</td>
<td>All</td>
</tr>
<tr>
<td>Friday, November 25, 2005</td>
<td>*University Holiday (Offices Closed)</td>
<td>All</td>
</tr>
<tr>
<td>Friday, December 23, 2005</td>
<td>Term Concludes</td>
<td>All</td>
</tr>
<tr>
<td>Friday, December 23, 2005</td>
<td>Graduation (No Ceremony)</td>
<td>All</td>
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</tbody>
</table>

#### Spring 2006

<table>
<thead>
<tr>
<th>Date</th>
<th>Activity</th>
<th>Student Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tuesday, November 01, 2005</td>
<td>Registration-Course Cards for Spring 2006</td>
<td>All</td>
</tr>
<tr>
<td>Tuesday, November 01, 2005</td>
<td>Web Registration Opens for Spring 2006</td>
<td>All</td>
</tr>
<tr>
<td>Monday, January 16, 2006</td>
<td>*University Holiday (Offices Closed)</td>
<td>All</td>
</tr>
<tr>
<td>Tuesday, January 17, 2006</td>
<td>1st Class Day</td>
<td>All</td>
</tr>
<tr>
<td>Wednesday, February 01, 2006</td>
<td>Census Day</td>
<td>All</td>
</tr>
<tr>
<td>Monday, February 20, 2006</td>
<td>*University Holiday (Offices Closed)</td>
<td>All</td>
</tr>
<tr>
<td>Monday, March 06, 2006</td>
<td>Spring Break Begins</td>
<td>All</td>
</tr>
<tr>
<td>Friday, March 10, 2006</td>
<td>Spring Break Ends</td>
<td>All</td>
</tr>
<tr>
<td>Thursday, May 18, 2006</td>
<td>Graduation Rehearsal</td>
<td>None</td>
</tr>
<tr>
<td>Friday, May 19, 2006</td>
<td>Graduation-UTHSCSA Auditorium</td>
<td>All</td>
</tr>
<tr>
<td>Friday, May 19, 2006</td>
<td>Term Concludes</td>
<td>All</td>
</tr>
<tr>
<td>Monday, May 29, 2006</td>
<td>*University Holiday (Offices Closed)</td>
<td>All</td>
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</tbody>
</table>

#### Summer 2006

<table>
<thead>
<tr>
<th>Date</th>
<th>Activity</th>
<th>Student Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monday, April 03, 2006</td>
<td>Registration-Course Cards for Summer 2006</td>
<td>New students only</td>
</tr>
<tr>
<td>Monday, April 03, 2006</td>
<td>Web Registration Opens for Summer 2006</td>
<td>Continuing students only</td>
</tr>
<tr>
<td>Monday, May 29, 2006</td>
<td>*University Holiday (Offices Closed)</td>
<td>All</td>
</tr>
<tr>
<td>Tuesday, May 30, 2006</td>
<td>1st Class Day</td>
<td>Continuing</td>
</tr>
<tr>
<td>Friday, June 09, 2006</td>
<td>Census Day</td>
<td>Continuing</td>
</tr>
<tr>
<td>Wed.–Fri., June 28–30, 2006</td>
<td>Orientation &amp; Registration-New Students</td>
<td>New</td>
</tr>
<tr>
<td>Monday, July 03, 2006</td>
<td>1st Class Day</td>
<td>New</td>
</tr>
<tr>
<td>Tuesday, July 04, 2006</td>
<td>*University Holiday (Offices Closed)</td>
<td>All</td>
</tr>
<tr>
<td>Monday, July 10, 2006</td>
<td>Census Day</td>
<td>New</td>
</tr>
<tr>
<td>Friday, August 18, 2006</td>
<td>Term Concludes</td>
<td>All</td>
</tr>
<tr>
<td>Saturday, August 19, 2006</td>
<td>Graduation (No Exercises)</td>
<td>All</td>
</tr>
</tbody>
</table>

*University Holidays Tentative

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Note: The 2006–2007 Academic Calendar will be made available on the Student Services Web in the fall.
The Graduate School of Biomedical Sciences 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, and Radiological Sciences. Masters degrees are offered in each of these disciplines as well as in several areas of oral health sciences (Dental Diagnostic Science, Endodontics, Periodontics and Prosthodontics), Allied Health Sciences (Clinical Laboratory Sciences and Dental Hygiene) and Clinical Investigation. 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 doctor and masters programs of the Graduate School of Biomedical Sciences have, during the past three decades, achieved outstanding success in their educational mission of preparing professional scientists quite comfortable in function in both the academic and industrial sectors.

Programs

The University of Texas Graduate School of Biomedical Sciences at San Antonio offers graduate programs in the biomedical sciences leading to the Master of Science and Doctor of Philosophy degrees in the following disciplines: Biochemistry, Cellular & Structural Biology, Microbiology and Immunology, Molecular Medicine, Pharmacology, Physiology, and Radiological 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. Detailed information about these graduate programs is provided in this Catalog.

Additionally, graduate programs emphasizing the development of professional competence are offered in Nursing, Pharmacy, Dentistry, Medicine, and Allied Health Sciences. The graduate program leading to the Master of Science in Nursing and Doctor of Philosophy degrees are conducted by the faculty of the Health Science Center's School of Nursing and administered through the Graduate School of Biomedical Sciences. Postdoctoral certificate and Master's degree programs in Prosthodontics, and Dental Diagnostic Sciences are offered under the joint auspices of the University's Dental School and the Graduate School of Biomedical Sciences. A Masters program in Clinical Investigation is designed for interested selected graduate students and health care professionals in the design and conduct of clinical studies. A Master of Science and Doctoral Program in Biomedical Engineering is jointly offered by the Graduate School of Biomedical Sciences at UTHSCSA and the Graduate School at The University of Texas at San Antonio (UTSA). The program leading to the Doctor of Pharmacy degree is jointly administered by the College of Pharmacy of The University of Texas at Austin and the Graduate School of Biomedical Sciences. Graduate programs in Allied Health Sciences disciplines (Dental Hygiene and Clinical Laboratory Sciences) are administered by the Graduate School of Biomedical Sciences. Detailed information about these programs can be found in the schools' respective section in this Catalog. In addition, detailed information about each of these graduate programs can be found in the Graduate School of Biomedical Sciences Applicant Viewbook. The Viewbook is available online at http://studentservices.uthscsa.edu/publications/graduat.html.

Each program is supervised by a Committee on Graduate Studies (COGS) composed of members of the graduate faculty of that program. The Committee 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 Chair of the Committee on Graduate Studies is the administrative head of each program. The Chair is the voting representative of the program on the Graduate Faculty Council and serves as the liaison officer between the Committee on Graduate Studies 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 Chair of the Committee on Graduate Studies. The advisor serves 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 continu-
ation of studies, and awarding of a degree; standards of student professional conduct; grading systems; graduate program review; and criteria for thesis/dissertation research, its supervision, and its defense. Each Committee on Graduate Studies 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 Associate Deans of the Graduate School, the Associate Dean for Graduate Nursing Program, the Associate Dean for Advanced Education of the Dental School, the Associate Dean for Allied Health, the chief student affairs officer, 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, Pharmacy, Pharmacology, Physiology, and Radiological Sciences and one faculty representative each from the graduate programs in Dentistry and Allied Health. A student representative can be elected from each of the following graduate student constituencies: Graduate Student Association, dentistry, nursing, allied health, and pharmacy to serve as nonvoting members of the Council.

Committees on Graduate Studies (COGS)

Biomedical Sciences Programs

Biochemistry
P. John Hart, PhD
Chair and Graduate Advisor

Biomedical Engineering
David D. Dean, PhD
Chair and Graduate Advisor

Cellular & Structural Biology
Susan Naylor, PhD
Chair and Graduate Advisor

Clinical Investigation
Michael Lichtenstein, MD
Chair and Graduate Advisor

Clinical Laboratory Sciences
Linda Smith, PhD, Chair
George Kudolo, PhD, Graduate Advisor

Microbiology
Keith Krolick, PhD
Chair and Graduate Advisor

Molecular Medicine
Thomas Boyer, PhD, Chair
Z. Dave Sharp, PhD, Graduate Advisor

Pharmacology
Charles France, PhD
Chair and Graduate Advisor

Physiology
Brad Rothberg, PhD
Chair and Graduate Advisor

Radiological Sciences
Geoffrey D. Clarke, PhD
Chair and Graduate Advisor

Professional Sciences Programs

Dental Diagnostic Science
Robert Langlais, DDS, MS
Chair and Graduate Advisor

Endodontics
Scott Schwartz, DDS
Chair and Graduate Advisor

Nursing
Gail Williams, PhD, RN, Chair

Periodontics
Brian Mealey, DDS, MS
Chair and Graduate Advisor

Prosthodontics
Rodney D. Phoenix, DDS, MS
Chair and Graduate Advisor

Dental Hygiene
Sharon Barbieri, MS
Chair and Graduate Advisor

Admissions and Application

Requirements for admission to graduate programs are detailed in the Applicant Viewbook of the Graduate School of Biomedical Sciences. In addition, the Viewbook can be accessed online at http://studentservices.uthscsa.edu/Publications/graduat.htm.

General admission requirements include a bachelor’s degree from an accredited institution in the United States or proof of equivalent degree and training at a foreign institution. The undergraduate grade point average should be no lower than B (3.0 on a 4.0 system). The grades received in graduate courses, which are computed separately, are also considered in evaluation of the application.

Satisfactory scores on the Graduate Record Examination (GRE) General (Aptitude) Test are desirable; in general, a minimum of 1000 for the combined scores on the verbal and quantitative portions of the General (Aptitude) Test is preferred. Individual programs may prefer higher minimum scores. Scores on GRE tests taken more than five years prior to the date of application are not acceptable.

Applicants from countries where English is not the native language are also required to submit scores on the Test of English as a Foreign Language (TOEFL). A minimum score of 560 is required on the paper test, 220 on the computer-based test, and 68 on the Internet-based test (with the exception of the School of Nursing, whose minimum Internet-based test score will be 83).

In lieu of a GRE score, applicants to the Clinical Investigation program must provide proof of a degree in medicine, dentistry, allied health science, or evidence of concurrent enrollment in the Graduate School of Biomedical Sciences.
For students applying to the MD/PhD program, scores from the Medical College Aptitude Test (MCAT) may be substituted for the GRE. In this case, MCAT scores of 25 or higher will be considered.

For students applying to the DDS/PhD program, scores from the Dental Aptitude Test (DAT) may be substituted for the GRE. Scores of 18 or higher will be considered.

For students applying to the Dental Hygiene program and the Nursing doctoral program, satisfactory scores from the Miller- Analogy Test (MAT) may be substituted for the GRE.

Scores on the MCAT, DAT, and MAT taken more than five years prior to the date of application are not acceptable.

As part of the application process, applicants to all programs will be required to provide authorization for a security background and sanction check to be performed.

**Non-degree Students**

An individual who wishes to enroll in courses presented in the Graduate School of Biomedical Sciences without entering a degree program must apply for admission as a Non-degree Student. The basic requirements for such admission are the same as those for degree students. Non-degree applicants are also required to provide authorization for a security background and sanction check to be performed at the time of application. Non-degree Students must receive approval of registration each semester by the Dean of the Graduate School and by the instructor of each course, maintain a grade point average of at least a B (3.0 in 4.0 system) in courses taken as a Non-degree Student, and maintain a maximum course load of nine semester hours in fall or spring semesters and six semester hours in summer session. In exceptional circumstances, an individual who is under consideration for admission to a degree program in the Graduate School may be permitted to register for a greater course load, with the concurrence of the Graduate Advisor of the degree program concerned. In general, students may not register as Non-degree Students for more than four consecutive semesters. All grades received as a Non-degree Student will be included in the graduate student's transcript and in computation of the cumulative GPA if the student is admitted subsequently to a graduate program. Under special circumstances, such as the computation of the GPA to determine academic probation, the Dean may grant exceptions to this policy. The grading policies for Non-degree Students are the same as those for degree-seeking students. Non-degree Student status will not be granted to premedical students for the purpose of taking Medical School courses. In addition, international applicants are not eligible for non-degree status.

**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 University of Texas Health Science Center at San Antonio. 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 Medical or Dental School and the Graduate School of Biomedical Sciences. At this time, admission to each school is accomplished separately.

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 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 three participating schools.

Additional information about dual degree programs is available from the Dean's office.

**Requirements and Regulations**

A student enrolled in the Graduate School of Biomedical Sciences is subject to all established requirements and regulations of UTHSCSA, 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 which is missed.

**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 University of Texas Health Science Center at 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 MS degree and the PhD 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. All requirements for a master's degree must be completed within one 3-year period. In special cases, upon recommendation of the Committee on Graduate Studies, the Dean may consider reinstatement.

Credit Hour Requirements
Students are admitted to an M.S., PhD, MD/PhD, or DDS/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 earned in Research, Thesis, and Seminar. With the exception of dual degree programs, all work for the M.S. degree is ordinarily done at The University of Texas Health Science Center at San Antonio 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.

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 Requirement
Directed teaching in the student's major area under the close supervision of one or more faculty members is required of each doctoral student. Up to six semester hours of credit toward a degree may be granted to the student who completes at least two semesters of teaching. In order to receive this credit, the student must enroll in a special graduate course in Supervised Teaching in her or his area and receive a grade of S (Satisfactory) or H (Honors).

Quantitative-Of-Work Rule
Full-time graduate students may be awarded stipends as teaching or 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 and stipends serve as scholarships to meet financial need.

There may be circumstances under which part-time graduate students desire gainful employment within the Health Science Center (or full-time employees desire to pursue part-time graduate studies), and the following guidelines should apply:

Within funds available, part-time graduate students who are gainfully employed part-time within the Health Science Center in addition to pursuing graduate studies may be paid prorated rates within salary scales of job classification for which they are qualified and/or to which they are assigned. This procedure is permitted primarily to allow gainful part-time employment in an area unrelated to the student's formal academic program.

The Committee on Graduate Studies should be consulted in advance when a part-time student desires part-time employment within the student's own supervising department, or when the student is employed in a work situation that exists whereby the employment 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.

<table>
<thead>
<tr>
<th>Graduate Hours Registered for</th>
<th>Maximum Hours Per Week Permitted to Work</th>
</tr>
</thead>
<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>
</tr>
<tr>
<td>10</td>
<td>16 - 40.00%</td>
</tr>
<tr>
<td>9</td>
<td>20 - 50.00%</td>
</tr>
<tr>
<td>8</td>
<td>23 - 57.50%</td>
</tr>
<tr>
<td>7</td>
<td>26 - 65.00%</td>
</tr>
<tr>
<td>6</td>
<td>30 - 75.00%</td>
</tr>
<tr>
<td>5</td>
<td>33 - 82.50%</td>
</tr>
<tr>
<td>4</td>
<td>36 - 90.00%</td>
</tr>
<tr>
<td>3</td>
<td>40 * - 100.00%</td>
</tr>
<tr>
<td>2</td>
<td>40 * - 100.00%</td>
</tr>
<tr>
<td>1</td>
<td>40 * - 100.00%</td>
</tr>
</tbody>
</table>

Registration
The Registrar’s Office will announce and provide the registration process to all students, department chairs, 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, Dissertation, and Supervised Teaching. No student can receive credit for a course for which he or she has not registered.

Semester Credit Hours
One semester hour of credit earned through:
1. Lecture clock hours: 15 to 18 (normally 16). Conference hours are equivalent to lecture hours.
2. Laboratory clock hours: 45 to 60 (normally 48).
A course, for example, has a credit value of three semester hours if the class meets for three lecture hours per week in the 17-week fall or 18-week spring semesters, or meets for four lecture hours per week in the 12-week summer session.
A course with two lecture hours and six laboratory hours each week for one semester has a credit value of four semester hours.

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, graduate assistant, research assistant, or tutor, the course load may be reduced correspondingly.

Adding Courses
Students may add courses during official add days as designated by the Registrar’s Office each semester. Students are not permitted to add classes to their schedules after 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.

Dropping Courses
Through the ninth week of fall or spring semester or the seventh week of summer session, a student who is not on academic probation may drop a course provided the student is passing the course at the time and has the signed approval of the instructor and COGS chair.

The Registrar will record the symbol Q 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 (Withdrawn Passing) or WF (Withdrawn 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 Request for Transfer of Credit form available in the Graduate School Dean’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 (BIOC, CLS, CSBL, DENH, ENDO, MEDI, MICR, MMED, NURS, ORTO, PERI, PHAR, PHYL,

* Present policy permits an employee to enroll in a 3-semester-hour course without reduction in pay.
IP, to take courses. The consent of the Committee on Graduate Studies and the Dean of ORTO, PHAR, PHYL, RADI 7099) only after all of 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 dissertation research proposal by the Committee on Graduate Studies of the program;
3. Appointment of a Supervising Committee for the dissertation course by the Committee on Graduate Studies of the program.

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 (BIOC, CSBL, MICR, MMED, NURS, ORTO, PHAR, PHYL, RADI 7099) only after all of 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 Final Term
It is a requirement that a student be registered for the semester or summer session in which he or she graduates.

Final Credit Hours
If a student is registering only for final credit hours (final semester or summer session) in preparation of a thesis or dissertation and registers for no other courses, the student is exempt from the minimum tuition requirement and pays tuition based upon the number of credit hours for which he or she registers. Such registration shall be considered a full-time course load. The minimum number of final credit hours for Ph.D. degree students is three; the minimum number for M.S. degree students is one. A student may register for final credit hours only once.

International Students
Because of requirements dictated by certain types of visas, international students must consult with their COGS Chair prior to registering for final hours.

Registration at Other U. T. System Components
A student who has been formally admitted to a graduate program may apply to take courses at any of the other components of the University of Texas System. Consent of the Committee on Graduate Studies and the Dean of the Graduate School must be obtained before the student may apply to another component for permission to register to take courses.

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 field work. No grade is given and no credit is reported. Graduate students must obtain permission to register to audit a course from the instructor of the course and the Graduate Advisor 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 Special Student.

Grading System
Credit hours are earned in the graduate programs only for the grades A, B, C and S. However, all A to F grades are included in the computation of the grade point average. 

Grade points are assigned as follows:

<table>
<thead>
<tr>
<th>Grade</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>4 (above average graduate work)</td>
</tr>
<tr>
<td>B</td>
<td>3 (average graduate work)</td>
</tr>
<tr>
<td>C</td>
<td>2 (below average graduate work)</td>
</tr>
<tr>
<td>D</td>
<td>1 (failing graduate work)</td>
</tr>
<tr>
<td>F</td>
<td>0 (failing graduate work)</td>
</tr>
</tbody>
</table>

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: Literature Searching, 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 grades are also given in PHAR 5090 and PHYL 6090 (Seminar) and CSBL 5074 (Introduction to Research). S/U and H (Honors) are given in CSBL 6071.

Other symbols used in reporting the standing of students in their classes are: WP and WF (course dropped while receiving a passing grade with no penalty), and I (Incomplete). The course director will record the symbol Q 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).

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.
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. The graduate student who has been dismissed may be readmitted for further graduate study by petition from the Committee on Graduate Studies of her or his graduate program. The request will be considered by the Graduate Faculty Council and, according to the recommended action, will be approved or disapproved by the Dean. A student on probation may not be admitted to candidacy or awarded a degree. Grades achieved during enrollment as a special 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 should complete and sign the upper portion of the Administrative Clearance Form (available from the Graduate School Office), submit the form for signature to the COGS Chair and the Graduate School dean, and obtain authorized signature clearance from each area listed on the lower portion of the form. 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 with the Administration Clearance Form. The student should then complete and sign the upper portion of this form, obtain on it the signatures of the COGS Chair and the Graduate School dean, and obtain authorized signature clearance from each area listed on the lower portion of the Form. The student should also drop any courses for which they are currently enrolled.

In Absentia (INTD 5004-1)

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 5004-2)

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 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.

Nonregistration

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 make written 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 wish such a transfer must have an interview with the Dean.

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.

Commencement
Graduation exercises are held each year in May.

Candidates for graduation of the Allied Health master's programs will participate in the School of Allied Health Sciences Commencement. The Graduate School Dean will be present to address the students and participate in the presentation of diplomas. Candidates for graduation of the doctoral graduate nursing 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 be from other than 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.)

5. 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.

6. **Draft of dissertation research proposal.** The candidate shall identify a research question which will serve as a focus for the dissertation research. The candidate shall prepare a draft of a research proposal which 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).

7. **Nomination of the 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, 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.

   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 Dean’s office a completed Form 30 Recommendation for Approval of Dissertation Research Proposal and Supervising Committee.

8. **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 the Dissertation course (6909). 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.

9. **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.

10. **Submission of the dissertation.** After agreement by the members of the Supervising Committee that the research has progressed sufficiently for submission of the dissertation, the draft of the dissertation shall be submitted to the Supervising Professor and then to all other members of the Supervising Committee and the Dean for their review and recommendations for modification. It is the responsibility of the candidate to follow the guidelines for preparation of the dissertation provided by the Graduate School.
Dean’s Office in Instructions for Preparation and Submission of Theses, Dissertations and Dissertation Abstracts, or if the alternative format appears to be preferable, to 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.

11. Final oral examination. When the Supervising Committee judges the dissertation to be suitable for defense, it shall submit a 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 (stapled together) should accompany the Request for Final Oral Examination Form at the time it is submitted to the Graduate School Office. Public announcement of the Final Oral Examination is made by the Graduate School Office. This Examination is conducted by the Supervising Committee with the Supervising Professor as chair. Interested persons may attend the public defense and have the right to question the candidate. After the public defense, the Final Oral Examination continues with an intensive oral examination by the Supervising Committee which is not customarily open to the public. The Supervising Committee members vote on the candidate’s success or failure on the Final Oral Examination; more than one vote for failure signifies failure on the Examination. The Supervising Committee submits the Report on Final Oral Examination Form (GSBS Form 43) 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; in such case, the Committee on Graduate Studies shall decide on 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 of the degree.

12. 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 Office the final typed copy of the dissertation (including the dissertation approval page signed by the Supervising Committee members) ready for duplication. When both the Report and the dissertation copy in final form have been received, the Graduate Faculty Council will consider the recommendation for granting of the degree. If the Council does not approve the recommendation, it will refer the matter to the Committee on Graduate Studies with a recommendation for remedial action. If the Council does approve the recommendation, the Dean of the Graduate School of Biomedical Sciences will notify the President of The University of Texas Health Science Center at San Antonio that the candidate has fulfilled all requirements of the Graduate School of Biomedical Sciences for the degree of Doctor of Philosophy. (This procedure is contingent upon the receipt of the final version of the thesis or dissertation.) Upon the candidate’s certification by the President, the degree is conferred by the Board of Regents of The University of Texas System. (See “Registration for Dissertation;” “Registration for Final Term;” “Graduation.”)

Master of Science Degree (Biomedical Sciences Programs)*

Phase I. (From matriculation to admission to candidacy.)

1. Assignment of faculty advisor. Same as above for Ph.D. degree.

2. Approval of research advisor. Same as above for Ph.D. degree.

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. Same as above for Ph.D. degree except that the Qualifying Examination may be waived. GSBS Form 31 should be submitted to the Dean for approval.

Phase II. (From admission to candidacy through granting of the degree.)

5. Selection of supervising professor. No later than one month 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.

6. Draft of the 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.

7. **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, 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 but need not necessarily be a member of the graduate faculty.

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 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.

The members of the Supervising Committee shall be appointed by the Committee on Graduate Studies, and such appointments shall be contingent upon the willingness of the designated persons to serve. 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.

8. **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.

9. **Submission of the thesis.** After members of the Supervising Committee agree that the research has progressed sufficiently for submission of the thesis, the draft of the thesis shall be submitted to the Supervising Professor and then to the other members of the Supervising Committee and the Dean for their review and recommendation 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 Instructions for Preparation and Submission of Theses, Dissertations and Dissertation Abstracts. A less formal format appears to be preferable, to 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.

10. **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 shall be uniform for all M.S. candidates in that program.

**Option 1.** If the Committee on Graduate Studies 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.

**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.

Two copies of the Abstract and the Vita should be submitted with the Request for the candidate’s files
in the Registrar’s Office and the Graduate School Dean’s Office.

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 case, 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 of the degree.

11. **Recommendation for granting of the degree.**

If the Committee on Graduate Studies approves the favorable recommendation by the Supervising Committee, the Chairman 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 typed copy of the thesis (including the thesis Approval Page signed by the Supervising Committee members) ready for duplication. When both the Report and the thesis copy have been received, the Graduate Faculty Council will consider the recommendation for granting the degree.

If the Council does not approve the recommendation, it will refer the matter to the Committee on Graduate Studies with a recommendation for remedial action. If the Council does approve the recommendation, the Dean of the Graduate School of Biomedical Sciences will notify the President of The University of Texas Health Science Center at San Antonio that the candidate has fulfilled all requirements for the degree Master of Science. Upon the candidate’s certification by the President, the degree is conferred by the Board of Regents of The University of Texas System.

(See “Registration for Thesis,” “Registration for Final Term,” and “Graduation” previously discussed in this section.)

**Sequential Procedures Forms**

The following forms, required for the sequential procedures described above, are available from the Graduate School Dean’s Office and online at [http://www.uthscsa.edu/gsbs/forms.html](http://www.uthscsa.edu/gsbs/forms.html):

<table>
<thead>
<tr>
<th>Form No.</th>
<th>Procedure</th>
</tr>
</thead>
<tbody>
<tr>
<td>31</td>
<td>Petition for Admission to Candidacy for M.S. Degree</td>
</tr>
<tr>
<td>32</td>
<td>Petition for Admission to Candidacy for Ph.D. Degree</td>
</tr>
<tr>
<td>33</td>
<td>Petition for Admission to Candidacy for M.S. in Nursing Degree</td>
</tr>
<tr>
<td>30</td>
<td>Recommendation for Approval of Dissertation Research Proposal and Supervising Committee (Ph.D.)</td>
</tr>
<tr>
<td>40</td>
<td>Request for Final Oral Examination (Ph.D. or M.S.)</td>
</tr>
<tr>
<td>41</td>
<td>Report on Final Oral Examination (M.S.)</td>
</tr>
<tr>
<td>42</td>
<td>Composition of Supervising Committee (M.S.)</td>
</tr>
<tr>
<td>43</td>
<td>Report on Final Oral Examination (Ph.D.)</td>
</tr>
</tbody>
</table>

A completed Application for Degree and Diploma Name Request must be filed during the semester before the term in which the candidate expects to graduate. This form is available from the Registrar's Office or the Graduate School Dean's Office.

**Instructions for Preparation and Submission of Theses, Dissertations, and Dissertation Abstracts**

These instructions should be obtained online at [http://www.uthscsa.edu/gsbs](http://www.uthscsa.edu/gsbs) or from the Graduate School Dean's Office by the candidate before he or she begins to write the thesis or dissertation.
BIOCHEMISTRY

The graduate program in Biochemistry offers graduate and postgraduate study designed to give the student the opportunity to become competent to conduct independent biochemical research and to participate in developing and transmitting scientific knowledge in an academic, industrial, or clinical environment. While the Doctor of Philosophy program is emphasized, a Master of Science degree is also available.

The graduate curriculum is designed to provide a synergistic program of formal courses, seminars, teaching opportunities, and individualized biochemical research experience in the laboratory of participating faculty. In addition, students are encouraged to broaden their scientific experience by taking courses in areas such as chemistry and its subdisciplines, biophysics, microbiology, and physiology.

Independent research experiences are available in many areas of biochemistry and molecular biology including: protein structure and function, metabolic regulation, membrane assembly, recombinant DNA technology, control of gene expression, mapping of eukaryotic genomes, assembly of viruses, and the mechanisms of hormone action. Application of the basic research conducted in the department is stressed by collaborative research programs carried out with faculty members in other basic science and clinical departments.

Research Activities

The ongoing research programs being pursued in the laboratories of the participating faculty in the graduate Biochemistry program cover a wide range of biochemical problems and are supported by grants from both federal and private funding agencies. Extensive instrumentation and facilities are available for the study of a myriad of biochemical problems using nearly any modern analytical approach.

Facilities, including a wide variety of centrifugation equipment, are available for the fractionation of various types of cellular material. Diverse compounds can be characterized using gas or high pressure liquid chromatography and any modern electrophoretic procedure. Facilities for mapping and sequencing DNA are available. Studies of protein structure and function can be performed with a protein sequenator, an amino acid analyzer, analytical ultracentrifuges, NMR spectrometers, single-crystal X-ray diffractometers, surface plasmon resonance (SPR), and computerized molecular modeling instrumentation. The department is well equipped with a wide variety of absorption and emission spectrophotometers including spectrophotofluorimeters and equipment for circular dichroism which can be used for the identification of compounds, the elucidation of macromolecular structures, the characterization of interactions involving macromolecules and for the study of a variety of kinetic phenomena that are important in understanding biological systems. Most forms of contemporary fluorescence digital imaging microscopy are available to investigate the fluorescent properties of isolated cells and membranes. Numerous liquid scintillation counters and a gamma counter are available for use in the many areas of biochemistry in which radioisotopes are used.

Requirements for Admission

At the time of admission, applicants must have earned a bachelor’s degree and have credit for one year’s undergraduate work in the following areas: biology, organic chemistry, physical chemistry, physics, and mathematics through integral calculus. Applicants lacking one of these requirements may receive acceptance contingent upon satisfactory completion of this requirement. In general, the undergraduate grade point average no lower than B (3.0 in a 4.0 system), and combined scores (verbal + quantitative) on the Graduate Record Examination General (Aptitude) Test of at least 1000 are preferred.

Financial Support for Graduate Students

Every effort is made by the Department of Biochemistry to provide financial aid to students enrolled in the graduate program. Such financial support is provided through teaching assistantships from the department and research assistantships from grants of individual faculty members.

Postgraduate Positions for Program Graduates

Graduates of the Ph.D. program in Biochemistry are expected to be in a favorable position to seek further postdoctoral training and to be in a highly competitive position for academic appointments at state and private institutions or employment in industrial and government laboratories.

Curriculum

Students pursuing the Doctor of Philosophy degree will be expected to acquire a comprehensive knowledge of biochemistry, which will be determined by performance in coursework and an oral defense of an original research proposition presented at the end of the third academic year. Although no minor area is required, students are encouraged to diversify their programs with courses offered in other departments at the Health Science Center. A dissertation, which represents an original contribution to the field of biochemistry and which is of publishable quality in reputable, scholarly journals is required of all candidates for the Doctor of Philosophy degree. A minimum of 72 semester credit hours is required in order to obtain the Doctor of Philosophy degree.

The faculty expects students entering the graduate program in Biochemistry to pursue studies leading to a Ph.D. degree. When, however, a student is admitted to pursue a Master of Science degree, the requirements are less rigorous than

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* The Sequential Procedures for the thesis-option Master of Science in Nursing degree, the Master of Science degree in dental specialties, and the Master of Science degree in Clinical Investigation are modified to correlate with the curricula of these programs. A copy of the appropriate Sequential Procedures may be obtained from the Graduate Advisor of the program.
those for the Ph.D. degree. These requirements are met by coursework and a research thesis which is defended in an oral examination.

Core Courses

Introductory graduate level courses cover fundamental information in biochemistry and molecular and cellular biology required in the education of a modern biomedical scientist. Topics covered in the core courses are organized in a coordinated and nonredundant manner and taught by an interdisciplinary group of faculty.

INTD 5005  Core Course I: Biochemistry
4.0 Semester 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.

BIOC 5077  Presentation of Published Research
1.0 Semester Credit Hour
Prerequisite: Enrolled in INTD 5005 Core Course I
In this course, a research article will be chosen for each student by the course Director in consultation with selected Biochemistry faculty. The student will have the opportunity to become comprehensively knowledgeable in the specific area covered by the article, to the extent that he/she will be able to critically analyze the experimental design, the techniques/technology used, present the results obtained, and discuss the merit(s) of the research. The student should be able to identify the results that represent credible advances and criticize faulty design and methodology that may have led to invalid conclusions.

INTD 5006  Core Course II: Molecular Biology
4.0 Semester Credit Hours
Topics to be covered include: nucleic acid structure; methods used in molecular biology; basic concepts of prokaryotic and eukaryotic molecular genetics; DNA replication, repair and rearrangements; RNA biosynthesis and regulation in prokaryotes and eukaryotes and protein biosynthesis and regulation in prokaryotes and eukaryotes.

INTD 5007  Core Course III: Cell Biology
4.0 Semester Credit Hours
Topics to be covered include: structure and function of biological membranes; cell signaling mechanisms; structural and functional organization of the nucleus; intracellular protein sorting; cytoskeleton and cell movement; cell adhesion and extracellular matrix; and cell reproduction.

BIOC 5081  Biochemical Techniques Lab
Credit to be arranged
This course is designed to introduce first-year graduate students in biochemistry to use of modern biochemical techniques and instruments and to research. The course is based on rotations in the laboratories of faculty members in the Department of Biochemistry.

BIOC 5074  Orientation to Biochemistry
1.0 Semester Credit Hour
Prerequisite: Consent of instructor
A course designed to give first-year graduate students in biochemistry experience in critically reading the biochemical literature. The use of the library, verbal presentation of research findings to small groups, and formulation and defense of research proposals will be emphasized.

BIOC 5091  Special Topics in Biochemistry
Credit to be arranged
Prerequisite: A survey course in biochemistry
Selected topics in specialized areas of biochemistry; current views will be emphasized.

BIOC 5091  Special Topics in Biochemistry: Quantitative Biochemistry
1.0 Semester Credit Hour
This course presents procedures for quantitatively analyzing data generated in typical biochemical experiments. Concepts and procedures related to databases, statistics, error analyses, and graphical analyses will be discussed. Use of software to accomplish such quantitative determinations will be emphasized.

INTD 6002  Ethics in Research
0.5 Semester Credit Hour
This course will deal with topics relevant to ethics in scientific research. The course will be 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.

BIOC 6071  Supervised Teaching
1.0 Semester Credit Hour
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
Credit to be arranged
Independent, original research under the direction of a faculty advisor.

BIOC 6069  Contemporary Biochemistry Student Review
1.0 Semester Credit Hour
Prerequisites: Must have passed Advancement to Candidacy Examination.
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.

BIOC 6098  Thesis
Credit to be arranged
Prerequisite: Admission to candidacy for the M.S. degree
Registration for a least one term is required of M.S. candidates.

BIOC 7099  Dissertation
Credit to be arranged
Prerequisite: Admission to candidacy for the Ph.D. degree
Registration for at least two terms is required for Ph.D. candidates.
BIOC 6028  Biophysical Chemistry
3.0 Semester Credit Hours
Prerequisite: INTD 5005 Biochemistry
Emphasis of the course will be to familiarize the student with: 1) the quantitative aspects of biochemistry, e.g., biochemical calculations, data and error analysis and statistics; 2) the use of computers in data acquisition, data analysis and fitting of equations to data; and 3) modern biophysical techniques, to give students the opportunity to read and understand recent publications utilizing these methods.

BIOC 5085  Biophysical Methods in Biology
2.0 Semester Credit Hours
Prerequisites: INTD 5005 Core Course I and INTD 5006 Core Course II
This 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 Biochemistry
2.0 Semester Credit Hours
Prerequisites: INTD 5005 Core Course I and INTD 5006 Core course II
The objective of this course is to provide comprehensive treatment of the exploration of genes and proteins through molecular biological techniques tailored towards experimental biochemistry. Topics to be covered include: basic enzymology; methods of enzyme characterization including kinetics, protein-ligand binding equilibrium studies, the physiological significance of multisite enzymes; the theory and practice of PCR including real-time PCR, PCR mutagenesis, and clone construction by PCR; problems in the preparation of large quantities of recombinant proteins in *E. coli*; site-specific and saturation mutagenesis; the bioinformatics of protein families; and molecular genetic systems used to explore gene expression and protein interactions in bacteria, yeast, *Drosophila*, and mammals.

BIOC 0003  Scientific Writing
1.0 Semester Credit Hour
Consists of writing a progress report describing research results for the semester. Required of all graduate students beginning in the first semester after selection of a supervising professor.

Advanced Courses
Eight credits of advanced courses are required for the Ph.D. degree. Prerequisites for the advanced courses are indicated for each course.

BIOC 5091  Nuclear Magnetic Resonance Spectroscopy for Biochemists
2.0 Semester Credit Hours
This course is designed to provide 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 6010  Gene Expression
2.0 Semester Credit Hours
Prerequisites: INTD 5005 Core Course I, INTD 5006 Core Course II, and INTD 5007 Core Course III
This course will cover 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-cytoplasmic transport; post-transcriptional mechanisms including: mechanisms of RNA splicing, nuclear-cytoplasmic 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.

BIOC 6033  Cellular Signaling Mechanisms
2.0 Semester 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.

BIOC 6035  Biochemistry of Multimolecular Complexes
2.0 Semester Credit Hours
Prerequisite: INTD 5005 Core Course I, INTD Core Course
This course will cover the assembly and biochemistry of several multimolecular complexes including those of transcription, cell motion, cell permeation, cell signaling, apoptosis, viral assembly and protein assembly-related processes of conformational diseases such as ALS, Huntington, Alzheimer, and Parkinson diseases. The techniques used to obtain information about these multimolecular complexes are also to be covered. The biochemical aspects of these studies will address both simple enzymatic activities and the more complex activities of biological motors.

BIOC 6043  Structure and Function of Membrane Proteins
2.0 Semester Credit Hours
Prerequisites: INTD 5005 Core Course I and INTD 5007 Core Course III; Core I and III (or equivalent) as prerequisites.
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 (e.g. K+, Na+ and Ca++ channels), and the basis of selectivity consistent with high flux rates, gating, and other forms of regulation; Large membrane pores (e.g. gap junctions, VDAC, P2Y, porins, translocons), their selectivity features, regulation, and physiological functions; Membrane transporters (amino acid, neurotransmitter, glucose, aquaporins), their mode of function and regulation; Membrane pumps (proton, ATPases, etc.) and the effects of lipids on membrane protein function; Membrane receptors (GABA, Ach etc.); Membrane fusion events in membrane trafficking.
BIOC 5083  Hydrodynamic Methods
2.0 Semester Credit Hours
This course is intended to provide 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 - Weischet 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. Also covered will be statistical analysis using Monte Carlo and bootstrap methods.

Electives

BIOC 1005  Cell and Molecular Biology
8.5 Semester Credit Hours
Prerequisites: General chemistry, organic chemistry and physics
This course is designed for medical students and may be taken for graduate credit only under unusual circumstances. Topics include the chemistry and metabolism of carbohydrates, lipids, amino acids, proteins and nucleic acids.

BIOC 5013  Dental Biochemistry
5.5 Semester Credit Hours
Prerequisites: Organic chemistry, biology, and consent of instructor
This course is primarily designed as a survey course for dental students. On a limited basis, a small number of graduate students may be accommodated. The course is basically a brief survey of the metabolism of the major classes of foodstuffs. A portion of the course deals with matters relating to the biochemistry of the oral cavity.

INTD 5043 Fundamentals of Neuroscience
4.0 Semester Credit Hours
This course is intended to introduce students to a broad survey of the basics of neuroscience. The course is organized into a series of modules discussing levels of neurobiological functions that range from molecular through behavioral and cognitive processes, and covering topics such as action potential, molecular mechanisms of synaptic release, neurotransmitters systems, autonomic regulation, the limbic system, sensory and motor processing, motion, cognition, and neuropsychiatric disorders.

INTD 5067 Introduction to Computational and Systems Biology
1.5 Semester Credit Hours
This course is an introduction to methods and tools for working with DNA sequences, protein families, learning basic UNIX networking, overview 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.

BIOMEDICAL ENGINEERING

The Ph.D. in Biomedical Engineering* program is jointly offered between The University of Texas Health Science Center at San Antonio (UTHSCSA) and The University of Texas at San Antonio (UTSA). This program trains scholars in the use of basic biomedical engineering approaches for the investigation of fundamental biomedical questions associated with the diagnosis and treatment of human diseases. As this is a multidisciplinary program, the curriculum is designed to provide a synergistic program of formal courses, seminars, teaching opportunities, interactions with clinicians, and individualized biomedical engineering research experience in the laboratory of the biomedical engineering faculty. Students in this program have access to the biomedical and biosciences laboratories at both UTHSCSA and UTSA. This provides a unique opportunity to have learning experiences in medical, dental, bioscience, and engineering environments.

Research Activities
Biomedical Engineering research activities are conducted both at UTHSCSA and at UTSA. At UTHSCSA, research activities include measuring and imaging the anatomy, chemistry, and function of the body and the brain using the latest positron emission tomography and other imaging technology. The Research Imaging Center leads international brain mapping research. The Center for Clinical Bioengineering concentrates on research into connective tissues, immunology, and oral health, and promotes the use of biomedical engineering for biomaterials, biomechanics and tissue engineering research. It houses state-of-the-art analytical tools for materials characterization and provides an interface between academic research and industry. Research at UTSA occurs at several graduate research laboratories, which include Coding, Communication & Control, Intelligent Systems, Digital Systems & Instrumentation, Biomechanics/Biomaterials, CNC & Robotics, Image Processing and Structural & Dynamics. Other research facilities that support existing programs in the sciences are housed primarily in the Science and Biosciences Buildings.

Requirements for Admission
The following general minimum requirements are needed for application to the Ph.D. in Biomedical Engineering program:

1. A minimum of a bachelor's or master's degree, with emphasis either in engineering, physical science or biological science from a regionally accredited institution in the United States or proof of an equivalent degree and training at a foreign institution.

2. A minimum grade point average of no lower than B (3.00 in a 4.00 system) in the last 60 hours of undergraduate and/or graduate coursework.

* A Master of Science in Biomedical Engineering also will be available.
Financial Support for Graduate Students
Competitive stipends are available to students on an annual basis. Students are required to apply annually for these competitive stipends. Students supported with stipends are required to maintain a satisfactory GPA during the supported year and are also required to fulfill academic duties such as teaching assistant, laboratory assistant, and conducting seminars. Students are also encouraged to seek other financial aid such as the NSF Graduate Research Fellowship (see http://www.nsf.gov for details on application and deadline) and assistance from Biomedical Engineering faculty.

Postgraduate Positions for Program Graduates
Career opportunities for graduates from this program include positions in research institutes, biomedical and medical industries, government laboratories such as NIST and FDA, and academic institutions. For graduates who are interested in applying their biomedical engineering knowledge to patient care, they have the opportunity to pursue a career in medicine and dentistry by applying to the medical and dental schools.

Curriculum
All students are required to take core courses in the areas of Biomaterials, Biomechanics, Bioelectronics/Imaging, and Biology (Gross Human Anatomy or Human Physiology), as well as Ethics in Research, Experimental Design and Data Analysis, Lab Rotation, and Introduction to Clinical Practices. In addition to the basic core curriculum, students are required to take additional coursework in their area of specialization. Students have access to the bioengineering and biosciences laboratories at both UTHSCSA and UTSA.

All candidates for the doctoral degree are required to take a core curriculum equivalent to 21.5 hours. In addition, students are required to take 9 hours of coursework that is prescribed by the student’s Supervising Professor or Graduate Advisor. Prescribed electives have to be selected from the list of electives specific to this program (provided below). These courses typically provide a foundation for the student’s dissertation research. An additional 9 hours of free electives are required that can be selected from any course offered at UTHSCSA or UTSA.

Fifteen hours of doctoral dissertation, seminar, laboratory rotation, and supervised teaching are also required for the degree. During their lab rotations, students participate in three to four rotations of three weeks each in the various laboratories associated with the Biomedical Engineering Program (BME 6001/ORTO 6002, Lab Rotations). This helps students decide upon an area of research concentration and a Supervising Professor. All students in the program are also required to take a course in Supervised Teaching wherein they are required to prepare and deliver lectures in topics related to their program of study.

Overall, students must complete a minimum of 81 hours of graduate work as specified above and must maintain an overall grade point average of at least 3.0. The required and selected courses are intended to focus and support the individual's mastery of his or her particular area of expertise.

The table below summarizes the distribution of hours required for the doctoral degree in Biomedical Engineering.

<table>
<thead>
<tr>
<th>Course Type</th>
<th>SCH Requirements</th>
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</thead>
<tbody>
<tr>
<td>Required (Core courses)</td>
<td>21.5</td>
</tr>
<tr>
<td>Prescribed electives</td>
<td>Minimum of 9</td>
</tr>
<tr>
<td>Free electives</td>
<td>Minimum of 9</td>
</tr>
<tr>
<td>Other:</td>
<td>Minimum of 15</td>
</tr>
<tr>
<td>Dissertation/Research, Seminar, Lab Rotations, and Teaching</td>
<td>Total Minimum of 81</td>
</tr>
</tbody>
</table>

Core Courses
UTHSCSA

CSBL 5019  Gross Human Anatomy
6.0 Semester Credit Hours
Prerequisite: Graduate standing
Dissection and regional study of human gross anatomy with emphasis on arthrology, osteology, gross neuromuscular and vascular anatomy, regional and general relationships between structures, and applied anatomy relevant to the practice of occupational therapy. Human materials fee: $300. (NOTE: Students may elect to substitute PHYL 5013 Physiology for this course.)

CSBL 5095  Experimental Design and Data Analysis
2.0 Semester Credit Hours
Prerequisite: Graduate standing
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
non-parametric 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.

INTD 6002 Ethics in Research
0.5 Semester Credit Hours
Prerequisite: Graduate standing
History of medical and research ethics, problem-solving in ethics, and federal and institutional requirements related to the conduct of research using human subjects or animals.

ORTO 6001 Biomaterials (equivalent to BME 6813 at UTSA)
3.0 Semester Credit Hours
Prerequisites: Graduate standing, Undergraduate Materials Science, Statics and Dynamics
This course introduces students to engineering materials used in medicine and dentistry for the repair and/or restoration of damaged natural tissues. Topics include relationships between material properties, suitability to task, surface chemistry, processing and treatment methods, and biocompatibility. This course provides a spectrum of materials used in biomedical engineering that include ceramics, metals, polymers, and composites. Applications of biomaterials such as in orthopaedics, cardiology, ophthalmology, drug delivery, and dentistry will be discussed.

ORTO 6003 Introduction to Clinical Practices
? Semester Credit Hour
Prerequisite: open to Biomedical Engineering graduate students
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.

PHYL 5013 Physiology
6.5 Semester Credit Hours
Prerequisite: Graduate standing
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. (NOTE: Students may elect to substitute CSBL 5019 Gross Human Anatomy for this course.)

RADI 5015 Physics of Diagnostic Imaging I
3.0 Semester Credit Hours
Prerequisite: Consent of instructor
Introduction to the basic principles and radiological practices using non-invasive imaging systems. Topics include production of x-rays; interaction of radiation with matter; and the physics of imaging using computed tomography, ultrasound, and magnetic resonance.

Core Courses
UTHSCSA

BME 6813 Biomaterials (equivalent to ORTO 6001 at UTHSCSA)
3.0 Semester Credit Hours
Prerequisites: Graduate standing, Undergraduate Materials Science, Statics and Dynamics
This course introduces students to engineering materials used in medicine and dentistry for the repair and/or restoration of damaged natural tissues. Topics include relationships between material properties, suitability to task, surface chemistry, processing and treatment methods, and biocompatibility. This course provides a spectrum of materials used in biomedical engineering that include ceramics, metals, polymers, and composites. Applications of biomaterials such as in orthopaedics, cardiology, ophthalmology, drug delivery, and dentistry will be discussed.

BME 6833 Biomechanics
3.0 Semester Credit Hours
Prerequisite: Permission of the instructor
Fundamentals in applications of engineering mechanics for studying and modeling fluid flow, tissues, organs, and the whole human body.

EGR 6013 Analytic Techniques in Engineering Analysis
3.0 Semester Credit Hours
Prerequisite: Graduate standing in engineering or consent of instructor
Advanced methods of applied mathematics, including linear algebra, vector differential calculus, integral theorems, differential equations, and calculus of variations. (NOTE: With permission can be replaced with EGR 5093 Special Topics in Engineering Analysis.)

Prescribed Electives
UTHSCSA

INTD 5005 Biochemistry
4.0 Semester Credit Hours
Prerequisite: Consent of instructor
Topics to 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.

INTD 5006 Molecular Biology
4.0 Semester Credit Hours
Prerequisite: Consent of instructor
A study of the molecular aspects of prokaryotic and eukaryotic genome structure and expression. Lectures will examine the current understanding of gene organization, regulation of transcription, RNA structure and function, translation and replication, and eukaryotic cells, their structure and function, methods of synthesis and regulation at the genetic and protein levels. Lectures only.

INTD 5041 Neuroscience - Medical
5.0 Semester Credit Hours
Prerequisite: Consent of instructor
Lectures, conferences, and laboratories deal with study of the anatomy and function of the brain and spinal cord. The course will include presentations of neurological cases and will be taught by an interdisciplinary task force from the Departments of Cellular & Structural Biology, Physiology, Medicine, and Surgery.
MICR 5016  Concepts and Techniques in Biotechnology
Credit to be arranged
Prerequisite: Consent of instructor
Project approach to understanding and using molecular biology and modern biotechnology for the study of contemporary biology.

MICR 5051  Introduction to Immunology
2.0 Semester Credit Hours
Prerequisite: Consent of instructor. Courses in General Biology and Genetics recommended.
Study of immune responses with emphasis on experimental strategies for elucidating cellular and molecular mechanisms. Three phases of study: (1) immunohistochemistry and molecular biology; (2) cellular interactions and immunology; and (3) immunopathologies (hypersensitivity, autoimmunity, immunodeficiency, transplantation rejection, and tumor immunology).

ORTO 6004  Biology for Bioengineers
3.0 Semester Credit Hours
Prerequisites: Permission of the instructor
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.

ORTO 6005  Biomaterials Surface Science
3.0 Semester Credit Hours
Prerequisites: undergraduate Physical Chemistry; undergraduate Biochemistry
This course provides an introduction to surface science as it is applied in the research, development and design of biomaterial surfaces. Topics include basic concepts of surface science: surface properties, morphological, chemical and electrical characterization methods as well as processes and interactions on/with surfaces, including corrosion and protein adhesion. Applications will emphasize cardiovascular implant issues but the principles are applicable to all biomaterials.

PHAR 5013  Principles of Pharmacology
3.0 Semester Credit Hours
Prerequisite: Organic chemistry or consent of instructor
Principles of drug action; receptor classification and quantification; 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, bio-transformation and elimination of drugs; pharmacokinetics; experimental approaches to drug action.

PHYL 5040  Cell and Neural Physiology
3.0 Semester Credit Hours
Prerequisite: Consent of instructor
This course focuses on molecular and biophysical mechanisms that regulate the physiological activities of eukaryotic cells. Particular emphasis is placed on events that regulate the function of groups of cells (tissues, organs) within multicellular organisms. Attention is also given to the experimental methods developed to understand important biological processes at the molecular and cellular level of biological organization.

PHYL 6091  Selected Topics in Physiology
Credit to be arranged
Prerequisite: Consent of instructor
Critical examination of selected current concepts in physiological function and approaches to research in different areas such as aging, endocrine physiology and metabolism, cellular and neurophysiology, and cardiovascular physiology.

RADI 6014  Physics of Dental Imaging
2.0 Semester Credit Hours
Prerequisite: Consent of instructor
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.

RADI 6016  Physics of Diagnostic Imaging II
3.0 Semester Credit Hours
Prerequisite: Consent of instructor
Theory of applications of various forms of electronic imaging systems including ultrasound and magnetic resonance imaging; advanced diagnostic imaging principles involving mathematical image analysis, digital image processing, digital image display, and concepts of electronic imaging.

RADI 6017  Human Behavioral Imaging
3.0 Semester Credit Hours
Prerequisite: Consent of instructor
This course covers the use of noninvasive brain imaging techniques to study functional organization of the human brain.

RADI 6019  Medical Image Processing
3.0 Semester Credit Hours
Prerequisite: RADI 6016
Introduction to the basic principles of image processing as applied to digital radiography, computed tomography, ultrasound imaging and magnetic resonance images.

RESD 6102  Advanced Dental Materials
1.0 Semester Credit Hour
Prerequisite: Consent of instructor
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.

Prescribed Elective

UTSA

BIO 5433  Neurophysiology
(3-0) 3 hours credit
Prerequisite: BIO 3433 or an equivalent
The fundamentals of neurophysiology are presented from the cellular to the systems level.

BIO 5483  Computational Neuroscience
(3-0) 3 hours credit
Prerequisite: BIO 3433 or an equivalent
A non-mathematical approach to the computational functions of the brain, including sensory coding, neural control of movement, and the computational properties of neurons and neuronal networks.
BIO 5503  Sensory Physiology  
(3-0) 3 hours credit  
Prerequisite: BIO 3433 or consent of instructor.  
Principles of sensory physiology, including sensory transduction and central processing of sensory information in vertebrate and invertebrate species.

BME 6823    Mechanical Behavior of Living Tissues  
(3-0) 3 hours credit  
Prerequisite: Permission of the instructor.  
Stress strain relationships, viscoelasticity, mechanical properties, and mechanical modeling of collagenous and mineralized human tissues.

BME 6843    Advanced Biomechanics  
(3-0) 3 hours credit  
Prerequisite: Graduate standing.  
This course covers the biomechanics of biological tissue deformation and their constitutive equations. Topics may include elasticity, viscoelasticity, deformation, stress analysis, strain measurement, stress and strain in organs, and constitutive equations. Tissues covered may include heart, blood vessels, cartilage, and bone.

BME 6853    Tissue Engineering  
(3-0) 3 hours credit  
Prerequisite: Graduate standing.  
Basic principles of tissue engineering will be introduced. The three main approaches consisting of 1) use of host cells capable of differentiating into tissues; 2) the development of bioactive factors to induce cells to differentiate into tissues, and 3) the development of delivery scaffolds for the cells and/or bioactive factors will be covered.

BME 6991    Research Seminar  
1 hour credit  
Prerequisites: Ph.D. student standing and consent of instructor and the Graduate Advisor.  
May be repeated for a maximum credit of 18 hours. The grade report for the course is either “CR” (satisfactory performance) or “NC” (unsatisfactory performance).

CHE 5263    Advanced Analytical Chemistry  
(3-0) 3 hours credit  
Prerequisites: CHE 3224 and CHE 4253, or equivalents.  
The physical and chemical principles of modern instrumental techniques used for chemical analysis, with emphasis on absorption, emission, magnetic resonance, and Raman spectroscopies; mass spectrometry; chromatography; electrophoresis; and electrochemical techniques. (Formerly CHE 5163. Credit cannot be earned for both CHE 5263 and CHE 5163.)

EE 5213    Topics in Instrumentation  
(2-3) 3 hours credit  
Prerequisites: EE 4453 or an equivalent, and EE 5153.  
Topics may include the following:  
- Biomedical Systems. Bioinstrumentation for physiological monitoring; biocompatibility  
- Automatic Test Equipment. Techniques and standards for ATE; VXIbus, IEEE-488, and SCPI  
- Virtual Instruments. Implementation of VI as collection of instrumentation resources.  
- Silicon Instruments. Techniques for fabricating sensors and signal processing elements into integrated systems  
May be repeated for credit as topics vary.

EE 5243    Topics in Control Systems  
(3-0) 3 hours credit  
Prerequisite: EE 5143.  
Topics may include the following:  
- Adaptive Systems and Control. Current methods in adaptive systems and control including stability, convergence, robustness, system identification, recursive parameter estimation, and design of parameterized controllers  
- Multivariable Control Systems. Analysis and design of multivariable feedback systems, stability, performance, and robustness. Techniques may include LQG, Youla parameterization, and Nyquist-like methods  
- Optimal Control. Optimal and suboptimal techniques for controller design using the principle of optimality, min-max principles, and induced norm minimization  
- Nonlinear Control Systems. Nonlinear systems modeling, existence and uniqueness of solutions, phase plane analysis, Lyapunov stability, and advanced nonlinear techniques  
May be repeated for credit as topics vary.

EE 5263    Topics in Digital Signal Processing and Digital Filtering  
(3-0) 3 hours credit  
Prerequisite: EE 5163 or consent of instructor.  
Topics may include the following:  
- Nonlinear Filters. Order statistic filters, morphological filters, stack/Boolean filters, and other related topics  
- Adaptive Filtering. Adaptive linear combiners, adaptive lattices, adaptive quadratic methods, and other related topics  
- Applications of DSP. Remote sensing, biomedical image analysis, underwater acoustics, video compression and processing, and analysis of biological signals  
- Computer Vision. Image perception, parallel and sequential edge detection in the visual system, shape from shading, stereo vision, image segmentation by textural perception in humans, chain codes, B-splines, 3-D representations  
May be repeated for credit as topics vary.

EE 5363    Digital Image Processing  
(3-0) 3 hours credit  
Prerequisite: EE 5163 or consent of instructor.  
Study of binary image processing; histogram and point operations; algebraic and geometric image operations; 2-D digital Fourier transforms; convolution; linear and nonlinear filtering; morphological filters; image enhancement; linear image restoration (deconvolution); digital image coding and compression; and digital image analysis.

EE 5463    Artificial Neural Networks  
(3-0) 3 hours credit  
Prerequisite: EE 5163 or consent of instructor.  
Study of parallel optimization algorithms using Hopfield networks, perceptrons, backpropagation competitive systems, and other unsupervised techniques.

EE 6343    Advanced Topics in Control  
(3-0) 3 hours credit  
Prerequisite: Consent of Graduate Advisor of Record and Dissertation Director.  
Current topics in the control area. May be repeated for credit as topics vary.

See UTSA Catalog for UTSA complete course descriptions.
EE 6363 Advanced Topics in Signal Processing  
(3-0) 3 hours credit  
Prerequisite: Consent of Graduate Advisor of Record and Dissertation Director  
Current topics in the signal processing area. May be repeated for credit as topics vary.

EGR 5513 Finite Element Methods  
(3-0) 3 hours credit  
Prerequisite: Graduate standing in engineering or consent of instructor  
Derivation and implementation of the finite element method, including boundary value and time-dependent problems.

ME 5013 Topics in Mechanical Engineering  
(3-0) 3 hours credit  
Prerequisite: Graduate standing in engineering or consent of instructor. Current topics in Mechanical Engineering. May be repeated for credit as topics vary.

ME 5133 Mechanical System Identification  
(3-0) 3 hours credit  
Prerequisites: ME 4523 and STA 2303, or their equivalents  

ME 5173 Nonlinear Systems  
(3-0) 3 hours credit  
Prerequisite: ME 3103 or an equivalent  
Dynamics of conservative and nonconservative systems, phase planes, local and global stability, forced oscillations of one-degree-of-freedom systems, primary, secondary, and multiple resonances, bifurcations, chaos, Parametric excitations, Floquet theory, Multi-degree-of-freedom systems, Hopf bifurcation. Applications to continuous systems.

ME 5413 Advanced Solid Mechanics  
(3-0) 3 hours credit  
Prerequisite: ME 3813 or an equivalent  
Variational mechanics, energy methods, elementary viscoelastic/plastic problems, and wave propagation. (Formerly EGR 5543. Credit cannot be earned for both ME 5413 and EGR 5543.)

ME 5473 Viscoelasticity  
(3-0) 3 hours credit  
Prerequisite: ME 3813 or an equivalent  
Principle of fading memory, integro-differential constitutive laws, mechanical models, time and temperature superposition, and linear and nonlinear methods. Applications to polymers, composites, and adhesives. (Formerly EGR 5323. Credit cannot be earned for both ME 5473 and EGR 5323.)

ME 5613 Advanced Fluid Mechanics  
(3-0) 3 hours credit  
Prerequisite: ME 3663 or an equivalent  
Dynamics of incompressible fluid mechanics viscous flow, Navier-Stokes equations, boundary layer theory, and numerical operations for incompressible fluid flow.

ME 5653 Computational Fluid Dynamics  
(3-0) 3 hours credit  
Prerequisite: ME 3663 or an equivalent  
The mathematical models for fluid-flow simulations at various levels of approximation, basic description techniques, and the nature of flow equations and their boundary conditions

STA 5103 Regression Analysis  
(3-0) 3 hours credit  
Prerequisites: MAT 2233 and STA 3523, or their equivalents  
Topics covered include simple linear regression, ordinary least squares and weighted least squares, analysis of residuals and variable selection methods. Nonlinear and logistic regression, and some topics in robust regression. Use of statistical software will be emphasized.

Other (Doctoral Research, Dissertation, Supervised Teaching, Seminar, and Lab Rotation)  
UTHSCSA

ORTO 6002 Laboratory Rotation (equivalent to BME 6001 at UTSA)  
1.0 Semester Credit Hour  
Prerequisite: Graduate standing  
This course provides an introduction to the different laboratories. Students attend a minimum of four rotations of three weeks each through different laboratories in the program. Students will have the opportunity to participate in ongoing research projects in each laboratory and will be required to have a written report for each rotation.

ORTO 6071 Supervised Teaching  
3.0 Semester Credit Hours  
Prerequisites: Doctoral candidates and consent of the Program Director  
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 UTHSCSA. The exact nature of the teaching will be determined based on each student’s program of study.

ORTO 6090 Research Seminar (equivalent to BME 6991 at UTSA)  
1 hour credit  
Prerequisites: Ph.D. student standing and consent of instructor and the Graduate Advisor  
May be repeated for a maximum credit of 18 hours. The grade report for the course is either “S” (satisfactory performance) or “U” (unsatisfactory performance).

ORTO 6097 Research (equivalent to BME 7953, 6 at UTSA)  
1.0–9.0 variable Semester Credit Hours  
Independent, original research under the direction of a faculty advisor. Credit to be arranged.

ORTO 7099 Dissertation (equivalent to BME 7993,6 at UTSA)  
Credit to be arranged  
Prerequisite: Admission to candidacy for Doctor of Philosophy degree in Biomedical Engineering, and consent of supervising professor and program director  
Registration for at least two semesters is required for Ph.D. candidates.
UTSA

BME 6001 Laboratory Rotation (equivalent to ORTO 6002 at UTHSCSA))

1.0 Semester Credit Hour
Prerequisite: Graduate standing

This course provides an introduction to the different laboratories. Students attend a minimum of four rotations of three weeks each through different laboratories in the program. Students will have the opportunity to participate in ongoing research projects in each laboratory and will be required to have a written report for each rotation.

BME 6991 Research Seminar
1 hour credit
Prerequisites: Ph.D. student standing and consent of instructor and the Graduate Advisor

May be repeated for a maximum credit of 18 hours. The grade report for the course is either “CR” (satisfactory performance) or “NC” (unsatisfactory performance).

BME 7953,6 Doctoral Research
3 or 6 hours credit
Prerequisites: Ph.D. student standing and consent of instructor and the Graduate Advisor

May be repeated for a maximum credit of 18 hours.

BME 7993,6 Doctoral Dissertation
3 or 6 hours credit
Prerequisite: Consent of the Doctoral Advisor of Record and Dissertation Advisor

May be repeated for a maximum credit of 18 hours.

CELLULAR & 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 cell and molecular biology, cancer biology, human and molecular genetics, anatomical sciences, reproductive biology, immunology, developmental biology, neurobiology, and the molecular basis of aging. 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 more than 50 members of the graduate faculty. In addition, in-depth instruction is also provided on effective seminar presentation as well as grant and manuscript preparation. Graduates from the program have been successful in obtaining rewarding research or teaching positions in either academic or industrial settings; however, some have chosen alternative opportunities, such as patent law, medical school, or dental school.

The majority of students in the Cellular and Structural Biology graduate program are seeking the Ph.D. degree. The doctoral program combines course work, seminars, journal clubs, and mentored research experiences. The Ph.D. degree is awarded when the candidate has demonstrated an ability to conduct original and independent research, is knowledgeable in the applicable areas of cell and molecular biology, and has completed a minimum of 72 semester credit hours of coursework. Also offered are two Master’s degree programs; one in the anatomical sciences and the other in biotechnology in which both research and academic skills are emphasized. For students in either Master’s track, an independent thesis and 30 hours of course work are required. There is considerable flexibility in the program in order to accommodate the needs and interests of the individual students.

Research Activities
The department has strong financial support for its basic research projects and has been consistently ranked among the top cell biology programs for funding from the National Institutes of Health. Additional research support has been derived from grants from the American Cancer Society, Veterans Administration, Howard Hughes Medical Institute, Genentech Inc., and other sources. Most Ph.D. students are supported by graduate stipends. All students are encouraged to apply for fellowships and grants and several have been successful in obtaining external funding.

A strength of the graduate program in Cellular and Mo-
molecular Biology is its diversity. Research areas include cell biology and cell signaling, developmental biology, cancer biology, aging, molecular immunology, human genetics, animal models, reproductive biology, endocrinology, neurobiology, and the anatomical sciences. State-of-the-art laboratories are equipped for biochemical, cellular, and recombinant DNA research. In addition, there are core facilities for the generation of transgenic mice, tissue culture, optical microscopy and imaging, and quantitative morphological analysis which benefit all students and faculty in the program.

The graduate faculty members collaborate extensively with individuals from the clinical departments in the dental, medical, and nursing schools; such interactions are particularly important in facilitating human-oriented research programs. Students have the opportunity to gain teaching experience by assisting with courses offered by the department to graduate, medical, allied health, and dental school students.

Requirements for Admission

Completed applications, including scores on the Graduate Record Examination (GRE) General (Aptitude) Test; certified transcripts of all college work; a letter from the applicant stating her/his objectives in graduate study; and three letters of recommendation must be received before February 1 in order for the applicant to be considered for admission the following August. Early application is strongly recommended.

A GPA of 3.0 and a combined score (verbal + quantitative) on the GRE Aptitude Test of 1100 are preferred. Applicants must have a bachelor's degree or an equivalent degree and credit for the following courses:

- **Biology:** Two years as required for science majors
- **Chemistry:** One year of general inorganic and a course in organic chemistry
- **Physics:** One year as required for science majors
- **Mathematics:** At least one semester of calculus

In unusual cases, students who do not meet all of the above requirements may be considered for admission.

Curriculum for MS Candidates

The graduate program in Cellular and Structural Biology offers a Master's Degree in Biomedical Sciences which may follow one of two basic tracks, focusing either on biotechnology or on anatomy. Generally, the biotechnology track is designed for the student who is interested in technical and/or supervisory positions in biotechnology companies, forensic labs, or in academic positions that require extensive knowledge of molecular biology. By comparison, the anatomy track is geared towards an individual interested in teaching anatomical sciences; both research and educational skills are emphasized. For students in both Master's tracks, an independent thesis and 30 hours of coursework are required. There is considerable flexibility in the program in order to accommodate the interests and needs of individual students.

Curriculum for Ph.D. Candidates

The majority of students in the Cellular and Structural Biology graduate program are seeking the Ph.D. degree. The program combines coursework, seminars, journal clubs, and mentored research experiences. The student is admitted to candidacy after completing required coursework, passing an oral qualifying exam, and demonstrating proficiency in independent laboratory research. The qualifying examination is based on a grant proposal written by the student and covers general scientific knowledge as well. The Ph.D. degree is awarded when the candidate has demonstrated an ability to conduct original and independent research, is knowledgeable in the general areas of cell biology and her/his specialization, and has completed a minimum of 72 semester credit hours of coursework.

The Ph.D. typically requires 4–6 years of training. In the first year of study, Ph.D. students participate in a core curriculum with students from other programs at The University of Texas Health Science Center at San Antonio. The core curriculum includes three basic courses in biochemistry, molecular biology, and cell biology. In addition, first-year students in our program are required to take Colloquium, a course designed to familiarize them with reading and presenting scientific literature. In the second year, all students take a statistics course, Experimental Design and Data Analysis. Additional required and elective courses are taken to augment research training; there are several specialized courses from which to choose, including seminar and didactic courses in the areas of aging, cancer biology, genetics, anatomy, developmental biology, animal models, and neurobiology. In addition, Ph.D. students are expected to teach one semester in one of the professional or graduate courses offered by the department. The overall program is designed to produce a diversely educated and talented scientist who will be able to choose among career opportunities in industry, education, or other arenas.

Financial Support of Graduate Students

Currently, students pursuing Ph.D. degrees in the Cellular and Structural Biology Graduate Program are supported by training grants from the National Institutes of Health, research grants of faculty, and state stipends. The current stipend is $21,500 per year.

Postgraduate Positions of Program Graduates

Graduates have successfully competed for postdoctoral fellowships at prestigious institutions and for positions in top-notch biotech companies, including the National Institutes of Health, Abbott Laboratories, Burroughs-Wellcome, Upjohn, and world-class universities. Some graduates have chosen alternative opportunities, such as patent law, teaching, or medical/dental school.
Required Courses for the Ph.D. Degree

Graduate Colloquium
Core Course I: Biochemistry
Core Course II: Molecular Biology
Core Course III: Cellular Biology
Core Course IV: Methods in Cell Biology
Ethics in Research
Experimental Design and Data Analysis
Introduction to Research
Supervised Teaching
Seminar
Research/Dissertation
Two of the following (advanced electives):
  Concepts in Vertebrate Development
  Genetics
  Biology of Aging
  Molecular Oncology
  Animal Models
  Fundamentals of Neuroscience
  One of the professional anatomy courses

Required Courses

INTD 5005  Core Course I: Biochemistry
4.0 Semester Credit Hours
A survey of biochemistry designed for graduate students, covering such areas as protein structure, enzymology, the metabolism and chemistry of carbohydrates, lipids, amino acids and nucleotides as well as the synthesis and function of macromolecules.

INTD 5006  Core Course II: Molecular Biology
4.0 Semester Credit Hours
A study of the molecular aspects of prokaryotic and eukaryotic genome structure and expression. Lectures will examine the current understanding of gene organization, regulation of transcription, RNA structure and function, translation and replication.

INTD 5007  Core Course III: Cellular Biology
4.0 Semester Credit Hours
This course offers students the opportunity to gain the fundamentals of molecular cell biology necessary to read, understand and evaluate the current research on each of the topics covered. The topics include: plasma membrane, intracellular organelles and sorting, energy conversion, cytoskeleton and motors, cell communication and signaling, extracellular matrix and cell adhesion, telomere and telomerase, cellular aging, apoptosis, cell growth and division, prokaryocyte, meiosis, germ cells, neurons and neuromuscular junctions, and cell immunology.

INTD 6002  Ethics in Research
0.5 Semester Credit Hour
This course will deal with topics relevant to ethics in scientific research. The course will be 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.

CSBL 5007  Core Course IV: Methods in Cell Biology
1.0 Semester Credit Hour
This course will be required of all Ph.D. students in the Cellular and Structural Biology graduate program. 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 topic areas 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 5074  Introduction to Research
0.5 Semester 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 5095  Experimental Design and Data Analysis
2.0 Semester 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.

CSBL 5089  Graduate Colloquium
1.5 Semester Credit Hours
A course designed to provide graduate students with practice in seminar preparation and presentation. Emphasis will be placed on organization, choice and critical evaluation of material and delivery.

CSBL 6071  Supervised Teaching
Credit to be arranged
Participation in the teaching program of the first-year medical, dental or allied health curriculum. Semester hours vary depending on the time spent in teaching.

CSBL 6090  Seminar
1.0 Semester Credit Hour
Attendance and participation in the regularly scheduled Department seminar series is required during each fall and spring semester. During the first spring semester students are required to write a literature review on a topic of their choice and a research grant proposal. During the second fall semester students must write an oral defense of the research proposal (qualifying exam). During all subsequent spring semesters students are required to present a seminar covering their progress in research.

CSBL 6097  Research
Credit to be arranged
Independent, original research under the direction of a faculty advisor.

CSBL 6098  Thesis
Credit to be arranged
Prerequisite: Admission to candidacy for Master of Science degree
Electives

CSBL 6048 Biology of Aging
3.0 Semester Credit Hours
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 will be offered to students who wish to either specialize in or have a strong background in the interrelated areas of aging and age-related diseases. Faculty from the Departments of Cellular & Structural Biology, Physiology, Pharmacology and Medicine 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 6020 Concepts in Vertebrate Development
3.0 Semester Credit Hours
This course will employ classical experimental embryology as a background for presenting recent advances in molecular and cellular aspects of vertebrate development. Topics include: gametogenesis and fertilization, cleavage and midblastula transition, gastrulation, neural induction, neural crest migration, CNS patterning, limb development, and inductive events in endodermal differentiation. Emphasis will be placed on mechanisms of morphogenesis and differentiation at the molecular level.

CSBL 6064 Genetics
3.0 Semester Credit Hours
This course is designed to provide an overview of genetic research. Topics to be covered include: cytogenetics, somatic cell genetics, linkage analysis, genomics, evolutionary genetics, comparative genetics, and the use of animal models for studying human genetic diseases.

CSBL 6068 Molecular Oncology
3.0 Semester Credit Hours
This course will provide an overview of current areas of research in the molecular biology of tumor formation. Areas that will be covered include oncogenes, tumor suppressor genes, telomere biology, DNA repair pathways and maintenance of genomic stability. The alteration of normal cellular pathways in the multistep process of tumorigenesis will be discussed, as well as modes of action of chemotherapeutic agents and current strategies in gene therapy of cancer.

CSBL 6021 Animal Models
3.0 Semester 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.

INTD 5043 Fundamentals of Neuroscience
4.0 Semester Credit Hours
This course is intended to introduce students to a broad survey of the basics of neuroscience. The course is organized into a series of modules discussing levels of neurobiological functions that range from molecular through behavioral and cognitive processes, and covering topics such as action potential, molecular mechanisms of synaptic release, neurotransmitter systems, autonomic regulation, the limbic system, sensory and motor processing, motion, cognition, and neuropsychiatric disorders.

CSBL 5019 Gross Human Anatomy for Graduate Students
6.0 Semester 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 prospected specimens, models skeletons, and other demonstration materials. Human materials fee: $3007.

CSBL 5011 Gross Anatomy and Human Embryology
7.5 Semester Credit Hours
Lectures, conferences and laboratory work covering normal human developmental and gross anatomy. Lectures on early embryonic development and implantation are presented at the beginning of the course. Lectures and laboratories on the development of the systems are correlated with the presentation and dissection of the gross structure of the adult. Groups of four students dissect a cadaver under supervision of the Cellular & Structural Biology Staff. Prosections, demonstration specimens, x-rays, films and other learning aids supplement the laboratory work. Applied anatomy and malformations are discussed by clinical specialists. Human materials fee: $300.

CSBL 5015 History of Anatomy
2.5 Semester Credit Hours
This course meets for two hours each week during the spring semester and offers a survey of the history of anatomy from the time of the Egyptians and Greeks through Anatomy in America. The course is organized around a biographical approach to this history. Each period begins with an overview of the discoveries and state of anatomical knowledge during the specified period. This is followed by short summaries of some of the important anatomists and their writings of that time and the period ends with a general discussion. In addition, there is an exhibition of rare books from the UTHSCSA Special Collections given by the library staff, a presentation on art in anatomy with emphasis on Leonardo da Vinci’s anatomical drawings, and a discussion of the acquisition of human cadavers.

CSBL 5016 Gross, Head and Neck Anatomy
7.5 Semester Credit Hours
This course teaches 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 prospected specimens, models skeletons, and other demonstration materials. Human materials fee: $3007.

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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. Human materials fee: $300.

CSBL 5031 Microscopic Anatomy - Medical
5.0 Semester Credit Hours
This course consists of a series of lectures and laboratory sessions which cover current concepts in cell biology and human histology. Basic information on the structure and function of cells and tissues is presented in the lectures; this is followed by staff-supervised laboratory sessions emphasizing the recognition of cells and the fundamental tissues. Each student is provided with a box of microscopic slides of human tissues. The laboratory sessions are accompanied by microscopic slide demonstrations and/or television tapes of tissues under study. Supplemental study material such as films, television tapes and transparent photomicrographics are available upon request through the Audiovisual Department and the Learning Resources Center. The general purpose of this course is to offer the student the opportunity to become acquainted with basic cytology and histology of normal human tissues, thereby developing a firm foundation of knowledge for the understanding of normal and disease processes. Laboratory and microscope fees will apply.

CSBL 5032 Dental Histology
5.0 Semester Credit Hours
Lectures, conferences, demonstrations and laboratory work studying the microscopic structure of the tissues and organs of the human body. Lectures will emphasize the correlation of structure and function while laboratory work will be devoted to the recognition of normal human tissue. Special emphasis is given to the structure and function of the oral cavity. This course may be taken in lieu of CSBL 5031 only under unusual circumstances. Laboratory and microscope fees will apply.

CSBL 5083 Practical Optical Microscopy
1.0 Semester 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 principals of optical microscopy and to provide them with hands-on experience using the optical instrumentation in the Institutional Imaging Core.

INTD 5041 Neuroscience - Medical
5.0 Semester Credit Hours
Lectures, conferences, and laboratories deal with study of the anatomy and function of the brain and spinal cord. The course will include presentations of neurological cases and will be taught by an interdisciplinary task force from the Departments of Cellular & Structural Biology, Physiology, Medicine and Surgery. Laboratory and microscope fees will apply.

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**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 Investigation program must provide proof of a degree in Medicine, Dentistry, Graduate Nursing, Allied Health Science, or evidence of concurrent enrollment in the Graduate School of Biomedical Sciences. A GRE score is not required. Enrollees in the MSCI Program will complete a mentored research project over two years while participating in a highly integrated set of ten didactic courses leading to the MSCI degree. The proposed courses are:

- Responsible Conduct of Patient-Oriented Clinical Research
- Research Methodology (3 semesters)
- Biostatistics (3 semesters)
- Integration of Molecular Biology with Clinical Research (1 semester)
- Data Management, Quality Control, and Regulatory Issues
- Scientific Writing
- Health Services Research

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.

MEDI 5070 Responsible Conduct of Patient-Oriented Clinical Research
2.0 Semester Credit Hours
This interdisciplinary course is designed to train participants in the responsible 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-I
2.0 Semester Credit Hours
This interdisciplinary course is the first in a three-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-I
2.0 Semester Credit Hours
This interdisciplinary course is the first in a three-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  Integrating Molecular Biology with Patient-Oriented Clinical Research
2.0 Semester 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
2.0 Semester Credit Hours
This interdisciplinary course is designed to train participants in the necessary data management and quality control required for 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) develop a data management plan integrated with computer technology for a research project; (2) develop a manual of operations to document coding decisions, quality control methodology, and personnel training for a research project; (3) describe the steps of preparation for a site visit, data audit, or review by quality control committees to comply with institutional, state, and federal regulations; (4) implement a pilot project simulating actual study and data management techniques, and modify the study protocol when appropriate; and (5) develop a budget for a research project.

MEDI 5075  Scientific Communication
2.0 Semester Credit Hour
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  Patient-Oriented Clinical Research Methods-2
2.0 Semester Credit Hours
Prerequisite: Patient-Oriented Clinical Research Methods-1
This interdisciplinary course is the second in a three-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.

MEDI 5077  Patient-Oriented Clinical Research Biostatistics-2
2.0 Semester Credit Hours
Prerequisite: Patient-Oriented Clinical Research Biostatistics-1
This interdisciplinary course is the second in a three-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) perform a two-way Analysis of Variance and explain the results; (2) prepare a life table and graph the results; (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.

MEDI 6061  Patient-Oriented Clinical Research Biostatistics-I
2.0 Semester Credit Hours
This elective course is offered under the auspices of the Masters of Clinical Investigation (MSCI) Degree Program. The purpose of the course is to provide participants training in the peer review process and grant management procedures. Delivered in eight two-hour sessions, topics include: (1) Funding Agencies/Missions/Deadlines/Instructions, (2) Institutional Grantsmanship Issues, (3) National Institutes of Health (NIH) Organization (Institutes/Councils/Centers/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 6064  Grantsmanship and Peer Review
1.0 Semester Credit Hour
This course focuses on concepts and methods used in research focusing on health care quality, utilization, access, costs, 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 concepts and basic methods of health services research
2. Identify relevant databases and data sources for health services research
3. Critically appraise and interpret published reports of health services research
4. Incorporate health services concepts, methods, or tools, into current research
5. Identify funding sources for health services research.

MEDI 6065  Health Services Research
2.0 Semester Credit Hours
This course is set up for the student to conduct their Mentored Research Project with their faculty advisor. 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 papers and/or a thesis. Students will take three semester credit hours of research during each semester of the Master of Science in Clinical Investigation Degree Program.
INTD 5043 Fundamentals of Neuroscience
4.0 Semester Credit Hours
This course is intended to introduce students to a broad survey of the basics of neuroscience. The course is organized into a series of modules discussing levels of neurobiological functions that range from molecular through behavioral and cognitive processes, and covering topics such as action potential, molecular mechanisms of synaptic release, neurotransmitters systems, autonomic regulation, the limbic system, sensory and motor processing, motion, cognition, and neuropsychiatric disorders.

MICROBIOLOGY & IMMUNOLOGY

The graduate program in Microbiology & Immunology provides many opportunities for students seeking the Ph.D. degree. Faculty-sponsored research includes studies in immunobiology, microbial physiology and genetics, molecular and cell biology, viral biochemistry and biology, mechanisms of microbial and parasitic disease pathogenesis, and host-parasite interactions.

The objective of the program is to prepare the student for a rewarding career as an independent researcher and teacher. The program is designed to provide students with the opportunity to acquire an in-depth knowledge of problem-solving skills, including methods of communicating scientific data and methods of using advanced research technology. An interdisciplinary approach to problem solving exists which involves experimental technologies from several areas in addition to microbiology. Students also have the opportunity to acquire basic teaching skills through required participation in departmental courses offered in the medical, dental, and graduate curricula; in departmental seminars; and in journal club meetings.

Several courses are required of every student so that a broad background in microbiology may be developed. However, the program is flexible in meeting the specific needs of individual students in order to give them the opportunity to satisfy their intellectual interests and career goals. Students who successfully complete all requirements for the degree of Doctor of Philosophy in Microbiology & Immunology will have the opportunity to develop the background required to initiate a successful and rewarding career in academic and research pursuits at universities or health science centers, in industrial research, or in government research institutes.

Research Activities

Research activities conducted by the departmental investigators staff represent many aspects of microbiology and immunology. These include molecular and cellular biology and genetics of procaryotes and eucaryotes, microbial physiology and metabolism, basic mechanisms by which infectious agents produce disease, host factors which contribute to disease and recovery, effects of various antimicrobial and antiviral agents on host-parasite relations, characterization of surface immunogens of cells and microorganisms, immunological responses of the host to microorganisms, development of serodiagnostic probes for detection of diseases, the cellular basis of immune response, and how the immune system is regulated. There are also several extensive investigations designed to make significant contributions to recently intensified efforts concerned with biodefense.

The department has all the major equipment needed for conducting modern research. Varieties of immunological methods are used to identify cells (including the use of the fluorescence-activated cell sorter) and cell products
involved in humoral and cell-mediated immune reactions. Radioimmunoassay and enzyme-linked antibody techniques are used in the detection of extremely small amounts of specific antibody or antigens. Hybridoma technology is used to produce specific monoclonal antibodies and genetic engineering techniques such as oligonucleotide mutagenesis, polymerase chain reaction and gene disruption are employed to isolate the study of individual genes and their expression. Radioisotope methods are used in conjunction with chromatographic, electrophoretic, and radioimaging techniques to effect the separation and identification of many kinds of molecules.

Faculty in the Department of Microbiology & Immunology receive research support from a variety of grants and contracts from federal and private agencies.

Requirements for Admission
Students normally begin graduate studies during the fall semester. Completed applications for the Ph.D. program, including scores on the Graduate Record Examination General (Aptitude) Test, should be received before January 10 in order for the applicant to be considered for admission into the program. Applicants with undergraduate grade point average and GRE scores below the stated minimum of the Graduate School of Biomedical Sciences will be evaluated. Students are accepted for admission on a competitive basis and only a limited number of positions are available each year.

Candidates for admission to the Microbiology Ph.D. program should possess a broad general education, including a B.S. or B.A. degree in science. A minimum of 12 semester hours in advanced biology courses (microbiology, immunology, biochemistry or genetics) is a prerequisite to admission to the program. Satisfactory completion of the following undergraduate courses is also a prerequisite, although applicants who lack one of the following requirements may be accepted contingent upon satisfactory completion of this requirement:

**Chemistry:** Two years. One year of general chemistry and one year of organic chemistry; a course in biochemistry is strongly recommended.

**Physics:** One year of general physics

**Mathematics:** A minimum of one semester of calculus

Past academic performance should be of sufficiently high quality to warrant further progress in scholarly activity. An average of B or better in all science courses is needed for the applicant to be highly competitive. Potential for future academic and career success as well as leadership will be considered.

Financial Support for Graduate Students
Teaching and graduate assistantships are awarded annually to Ph.D. students on the basis of academic qualifications. After one or two years as a Teaching Assistant, the students may be awarded an assistantship from research grants, some of which are conducted jointly with faculty of other departments.

Postgraduate Positions of Program Graduates
Graduates who have received Ph.D. degrees from this program have continued their professional activities. Some are in postdoctoral training; others are now in positions in research institutes, industrial or government laboratories, or academic institutions.

Curriculum
For the **Doctor of Philosophy** degree, a minimum of 72 semester credit hours is required. Admission to candidacy is contingent upon satisfactory performance in required coursework and on the written and oral qualifying examination. The qualifying examination, conducted during the second year of the student’s program, will involve the preparation of an original research proposal which subsequently will be defended by the student in an oral examination. This exam will focus on specific and general aspects of the proposal. The Committee on Graduate Studies will recommend the student to candidacy for the Ph.D. degree following the student’s completion of all required courses, satisfactory performance in the qualifying examination, and proficiency in independent laboratory work and research skills.

Following the student’s admission to candidacy, a carefully selected Supervising Committee, chaired by the student’s Supervising Professor, will review the student’s choice of a research problem and proposals for its solution. The student will submit periodic written and oral reports and will meet with the Supervising Committee at least twice a year to review progress on the dissertation research problem. Following her/his completion of the dissertation and certification by the Supervising Committee of the suitability of the dissertation for the final examination, the candidate will present a public seminar and defense of the dissertation and will continue its defense in session with the Supervising Committee.

The awarding of the Ph.D. degree is based on evidence of the candidate’s ability to conduct independent and original research, as judged by the Committee on Graduate Studies and by the Supervising Committee for each student, as well as her/his knowledge and skills in the general area of microbiology and in a selected field of specialization within microbiology.

For the **Master of Science** degree, a student must submit an acceptable research proposal, conduct the research, and then successfully defend a thesis in order to complete the requirements for the M.S. degree.

Required Courses for the Ph.D. Degree
MICR 5090 Acquiring Presentation Skills
1.0 Semester 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 5031 Pathogenic Microbiology**  
*4.0 Semester Credit Hours*  
**Prerequisite:** Biochemistry and Molecular Biology  
Lectures only.  
This course integrates different disciplines (immunology, cell biology, genetics, biochemistry, molecular biology, physiology, and medical microbiology) with a central theme focused on molecular mechanisms of microbial pathogenesis in man.

**MICR 5041 Introduction to Virology**  
*2.0 Semester Credit Hours*  
**Prerequisites:** General Biology, General or Medical Microbiology, General Biochemistry and consent of instructor  
Basic non-medical general virology with emphasis on molecular biology of animal viruses: physical and chemical properties, molecular mechanisms and biology of multiplication, effects on host cells, genetics, and mechanisms of persistence in nature.

**MICR 5051 Introduction to Immunology**  
*2.0 Semester Credit Hours*  
**Prerequisite:** Consent of instructor; courses in General Biology and Genetics recommended  
Lectures only.  
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 immunity).

**INTD 5005 Core Course I: Biochemistry**  
*4.0 Semester Credit Hours*  
Lectures only.

**INTD 5006 Core Course II: Molecular Biology**  
*4.0 Semester Credit Hours*  
Lectures only.  
A study of the molecular aspects of prokaryotic and eukaryotic genome structure and expression. Lectures will examine the current understanding of chromosome structure, gene organization, regulation of transcription, RNA structure and function, translation and replication.

**INTD 5007 Core Course III: Cellular Biology**  
*4.0 Semester Credit Hours*  
Lectures only.  
This course offers students the opportunity to gain the fundamentals of molecular cell biology necessary to read, understand and evaluate the current research on each of the topics covered. The topics include: plasma membrane, intracellular sorting, nucleus-chromatin, energy conversion, cytoskeleton movements, cell signaling, cell growth and division, cell adhesion and extracellular matrix meiosis, germ cells/fertilization and social behavior of cells. Topics are presented through lectures, demonstrations, text, current literature readings and student presentations.

**INTD 6002 Ethics in Research**  
*0.5 Semester Credit Hour*  
This course will deal with topics relevant to ethics in scientific research. The course will be 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 issues relevant to human and animal research.

**MICR 6071 Supervised Teaching**  
*Credit to be arranged*  
**Prerequisite:** Consent of chair of department  
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.

**MICR 6097 Research**  
*Credit to be arranged*  
Independent, original research under the direction of faculty advisor. May be conducted in bacteriology, virology, mycology, parasitology, and immunology.

**MICR 7099 Dissertation**  
*Credit to be arranged*  
**Prerequisite:** Admission to candidacy for the Doctor of Philosophy degree  
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.

**M.S. Courses**

**MICR 6097 Research**  
*Credit to be arranged*  
Independent, original research under the direction of faculty advisor. May be conducted in bacteriology, virology, mycology, parasitology, and immunology.

**MICR 6098 Thesis**  
*Credit to be arranged*  
**Prerequisite:** Admission to candidacy for the Master of Science degree  
Registration for at least one term is required of M.S. candidates.

**Electives**

**MICR 6043 Advanced Topics in Virology**  
*2.0 Semester Credit Hours*  
**Prerequisites:** Introduction to Virology, General Biochemistry, and consent of instructor  
Lectures only.  
in-depth study of selected molecular topics from the current literature in virology.

**MICR 6052 Advanced Immunobiology**  
*2.0 Semester Credit Hours*  
**Prerequisite:** Introduction to Immunology or consent of instructor  
Lectures only.  
An in-depth study of the immune system and how it is regulated. Presentation and discussion of current literature in these areas.
MICR 6024  Advanced Microbial Genetics  
1.0–4.0 Semester Credit Hours  
Prerequisites: Microbial Genetics and consent of instructor  
Lectures and conferences.  
In-depth study of selected areas of microbial genetics. Presentation and discussion of current literature in these areas.

MICR 6022  Advanced Microbial Physiology  
2.0 Semester Credit Hours  
Prerequisite: Microbial Physiology and consent of instructor  
Readings and conferences  
Current concepts and experimental studies in microbial structure-function relationships and regulatory mechanisms.

MICR 5092  Special Problems in Microbiology  
Credit to be arranged  
Prerequisite: Consent of instructor  
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.

MICR 5091  Special Topics in Microbiology  
Credit to be arranged  
Prerequisite: Consent of instructor  
Students will be given an opportunity to gain in-depth understanding of selected topics in microbiology through a combination of library research and discussion with faculty.

MICR 5011  Medical Microbiology  
5.0 Semester Credit Hours  
Prerequisite: Consent of instructor  
Lectures only.  
This course is designed primarily for medical students; graduate credit will be permitted only under unusual circumstances. Broad coverage of human immunology, virology, bacteriology, mycology and parasitology with emphasis upon problems likely to be encountered in medical practice.

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 Molecular Medicine, Biochemistry, Cellular and Structural Biology, 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.

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, development of anticancer drugs, control of mammalian development, 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 Development in the Texas Research Park, as well as at the main campus of 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.

Admission Requirements

In addition to the requirements for admission to the Graduate School of Biomedical Sciences, applicants to the molecular medicine program must have received credit for the following courses:

Biology*: Two years as required for science majors
Chemistry*: One year of general inorganic and a course in organic chemistry. Analytical and physical chemistry are recommended.
Physics*: One year as required for science majors
Mathematics: A minimum of one semester of calculus

Curriculum

During the first year, students attend core courses in advanced molecular biology, molecular medicine, and laboratory techniques. At the same time, they are introduced to
research through a series of rotations in the laboratories of individual faculty members. At the end of the first year, students must pass an oral Comprehensive Examination covering material presented in the first-year classes. Following successful completion of the Comprehensive Examination, each student selects a faculty advisor and begins doctoral research. During their third year in the program, students must pass the Qualifying Evaluation, which consists of a written dissertation proposal followed by defense of the proposal in an oral examination. Completion of course work, the comprehensive and qualifying examinations, and doctoral research should take four to five years. A minimum of 72 semester credit hours is required to obtain a Ph.D.

**Required Courses**

- Advanced Molecular Cell Biology
- Molecular Medicine
- Seminars in Molecular Medicine
- Modern Methods in Cell and Molecular Biology
- Graduate Colloquium
- Ethics in Research
- Supervised Teaching
- Research
- Thesis
- Dissertation

**Electives**

- Biochemistry
- Current Topic in Cancer Biology
- Human Cytogenetics
- Advanced Human Genetics
- Molecular Developmental Biology
- Introduction to Virology
- Introduction to Immunology
- Advanced Topics in Virology
- Advanced Molecular Tumor Biology
- Advanced Biochemistry of Nucleic Acids and Proteins
- Biostatistics
- Basic Pathology
- Principles of Physiology
- Advanced Pharmacology I
- Independent Study

**Required Courses for the Ph.D. Degree**

- MMED 6016 Advanced Molecular Cell Biology
  - **5.0 Semester Credit Hours**
  - 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 5001 Molecular Medicine
  - **3.0 Semester 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 6091 Seminars in Molecular Medicine
  - **1.0 Semester Credit Hour**
  - Registration every term in residence is required of all Molecular Medicine students.

- MMED 5015 Modern Methods in Cell and Molecular Biology
  - **1.0 Semester Credit Hour**
  - A course designed to introduce students to the basic experimental techniques used in the study of cell biology, molecular biology and protein analysis. This is a hands-on laboratory course that utilizes a special student laboratory and specialized equipment.

- MMED 5019 Graduate Colloquium
  - **1.0 Semester Credit Hour**
  - A course designed to provide graduate students with experience in seminar preparation and presentation with an emphasis on critical evaluation of data and delivery of material.

- INTD 6002 Ethics in Research
  - **0.5 Semester Credit Hour**
  - This course will deal with topics relevant to ethics in scientific research. The course will be 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.

- MMED 6071 Supervised Teaching
  - **1.0 Semester Credit Hour**
  - 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 6097 Research
  - **Credit to be arranged**
  - Independent, original research under the direction of faculty advisor.

- MMED 6098 Thesis
  - **Credit to be arranged**
  - Registration for at least one term is required of M.S. candidates.

- MMED 7099 Dissertation
  - **Credit to be arranged**
  - Registration for at least two terms is required of Ph.D. candidates.

*Courses should include laboratory experience.*
Electives

INTD 5005 Core Course I: Biochemistry
4.0 Semester 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.

MMED 6017 Cellular Response to DNA Damage
1.0 Semester Credit Hour
This advanced course will cover recent advancements in the molecular and cellular aspects of cellular responses to DNA damage. Topics include new insights into DNA repair mechanisms, interactions between DNA repair and tumor suppressor genes, and DNA damage-activated cell cycle checkpoints.

MMED 6030 Current Topics in Cancer Biology
2.0 Semester Credit Hours
This advanced course will cover recent advancements in molecular and cellular aspects of cancer biology. Topics to be covered include identification of cancer-related genes, new insights of gene function of previously identified cancer-related genes, and new approaches to the study of cancer.

CSBL 5066 Human Cytogenetics
2.0 Semester Credit Hours
A lecture and student seminar course concerning human cytogenetics and the organization of the human genome. Emphasis will be placed on clinical aspects and a molecular approach to the human genome. Topics will include clinical disease, cancer genetics, and gene mapping.

MICR 5041 Introduction to Virology
2.0 Semester Credit Hours
Basic nonmedical general virology with emphasis on molecular and cellular biology of animal viruses: physical and chemical properties, molecular mechanisms and biology of multiplication, effects on host cells, genetics, and interferon.

MICR 5051 Introduction to Immunology
2.0 Semester Credit Hours
Study of immune responses with emphasis on experimental strategies for elucidating cellular and molecular mechanisms. Three phases of study are (1) immunochemistry and molecular biology of antibodies, lymphocyte receptors and products of the major histocompatibility complex; (2) cellular interaction immunoregulation; and (3) immunopathologies.

MICR 6043 Advanced Topics in Virology
2.0 Semester Credit Hours
In-depth study of selected topics in virology.

CSBL 5046 Molecular Pathogenesis of Disease
1.0 Semester Credit Hour
This course is designed to illustrate the ways medical scientists investigate basic mechanisms of disease. Students will meet in seminar groups throughout the semester and will have the opportunity to develop confidence in critically evaluating literature and in devising hypotheses that exploit and consolidate the student's understanding of cellular and molecular biology as it applies to human disease. The

**The exact electives will be determined by student's advisory committee.**

PATH 5021 Biostatistics
3.0 Semester Credit Hours
(See Coordinate Graduate Courses at the end of the Graduate School section.)

PATH 2005 Basic Pathology
12.0 Semester Credit Hours
This course provides an introduction to the fundamentals of human disease (general pathology) followed by a review of the principal diseases of major organ systems (systemic pathology). Teaching methods include lectures, laboratory exercises, case conferences, reviews and a variety of self-instructional materials. The interpretation of gross and microscopic pathologic specimens is emphasized as a means of illustrating the application of principles to actual clinical diseases. The course also includes the application of clinical laboratory tests in disease diagnosis.

Physiology Electives
The following electives are described in the physiology program descriptions:

PHYL 5041 Cardiovascular Physiology

PHYL 5042 Renal and Acid Base Physiology

PHYL 5043 Respiratory Physiology

PHYL 5044 Endocrine/Metabolic Physiology

PHYL 5040 Cellular and Neural Physiology

PHAR 5013 Principles of Pharmacology
3.0 Semester Credit Hours
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.

INTD 5043 Fundamentals of Neuroscience
4.0 Semester Credit Hours
This course is intended to introduce students to a broad survey of the basics of neuroscience. The course is organized into a series of modules discussing levels of neurobiological functions that range from molecular through behavioral and cognitive processes, and covering topics such as action potential, molecular mechanisms of synaptic release, neurotransmitters systems, autonomic regulation, the limbic system, sensory and motor processing, motion, cognition, and neuropsychiatric disorders.
JOINT PHARM.D. PROGRAM

The Doctor of Pharmacy (Pharm.D.) program provides students the opportunity to acquire the education and training required to provide comprehensive pharmaceutical care services in a variety of practice environments. A select number of students may participate in the Joint Pharm. D. Program administered by The University of Texas at Austin College of Pharmacy and The University of Texas Health Science Center at San Antonio after successfully completing two years of professional coursework in Pharmacy on the U. T. Austin campus. During the third professional year on the UTHSCSA campus, the student has the opportunity to increase her/his knowledge and comprehension of pathophysiology, applied pharmacokinetics, pharmacoeconomics, patient assessment techniques, and pharmacotherapy. The emphasis on problem-based instruction provides students the opportunity to improve their skills in retrieving and interpreting drug and biomedical information as well as integrating and applying previously acquired knowledge to new situations. The fourth professional year consists of seven 6-week clerkships which are conducted in a variety of acute care and ambulatory care facilities throughout the region.

The Dean of the UT Austin College of Pharmacy is responsible for administration of the joint Pharm.D. Program. In addition, several committees within the College of Pharmacy help support the day-to-day operation of the Program. The Deans of the UTHSCSA Graduate School of Biomedical Sciences, the UTHSCSA School of Medicine, and the UT Austin College of Pharmacy collaborate on the development of Joint Program policies and procedures. The faculty of the University of Texas College of Pharmacy Pharmacotherapy Division also hold appointments in the School of Medicine at the UTHSCSA. The Pharmacotherapy Division Head reports jointly to the Dean of the College of Pharmacy, and reports as a center director to the Dean, UTHSCSA School of Medicine.

Requirements for Admission

Admission to the College of Pharmacy is contingent on and separate from admission to The University of Texas at Austin. In addition to completing all prepharmacy course requirements, each applicant must make a satisfactory score on the PCAT exam. Additional measures of scholarly accomplishments and academic potential may be evidenced by grade point average, letters of recommendation, extramural service activities, and oral and written communication skills. Preference is given to applicants who are legal residents of Texas.

Curriculum

Capitalizing on the strengths of preclinical science studies in medicinal chemistry, biopharmaceutics, pharmacology, and other biomedical courses, the Pharm.D. student spends the third professional year in doctoral courses to become proficient in the application of pharmacotherapeutics, pharmacokinetics, pharmacoeconomics, drug literature evaluation, and patient assessment. Opportunities for review, repetition, and reinforcement of scientific principles fundamental to the student’s clinical effectiveness are provided in a subsequent 42-week experiential component. This year consists of four required clerkships (two acute care, one institutional, and one ambulatory care) and three elective or selective clerkships. Through the careful selection of practice sites and preceptors, a student can acquire a wide variety of challenging professional practice experiences as well as pursue areas of special interest.

The Joint Pharm.D. degree is conferred on the basis of successful completion of all academic credits and the joint nature of the degree is recognized on the diploma of the graduate. Eligibility to graduate is certified by the Graduate Dean, UTHSCSA and the Dean, College of Pharmacy, The University of Texas at Austin.

All professional degree programs in Pharmacy are accredited by the Accreditation Council on Pharmaceutical Education, a specialized accrediting agency recognized by the Secretary of Education, United States Department of Education. The last site visit and accreditation review was conducted in February 2004 and the College of Pharmacy received the maximum, six-year accreditation of its degree programs. The Council may be contacted at 312-644-3575 or through its Web site at http://www.ACPE-accredit.org.

Additional Information

The University of Texas at Austin Undergraduate Catalog contains detailed information about the Pharm.D. program and the College of Pharmacy. Further information may be obtained from the College's Web page (http://www.utexas.edu/pharmacy) or by writing:

Assistant Dean for Admissions
College of Pharmacy
The University of Texas at Austin
1 University Station, A1900
Austin, TX 78712-0120
PHARMACOLOGY

In the broadest sense, pharmacology is the study of how chemical agents, both natural and synthetic (i.e., drugs) affect biological systems. This encompasses investigation of the derivation, chemical properties, physiological and behavioral effects, mechanisms of action, biological transformations and the therapeutic and nontherapeutic uses of drugs. Pharmacology has evolved as a scientific discipline from one that merely described the overt effects of biologically active chemicals to one that explores the mechanisms, at a molecular level, through which drugs cause biological effects. It is now becoming possible, for example, to understand the specific structural sites on a protein with which a drug interacts to alter the function of that protein, be it an enzyme, receptor, etc. Training in pharmacology, therefore, includes an understanding of various basic biomedical disciplines such as biochemistry, molecular and cellular biology, and physiology. Since a key objective of pharmacology is to further the understanding of both the cause and treatment of disease, knowledge of pathophysiology also becomes an essential feature of pharmacological training. Studies currently in progress range in use from molecular biological techniques and model cell approaches to whole animal studies in which electrophysiological, neurochemical, and behavioral techniques are utilized.

The first two years include coursework in basic biomedical sciences, graduate pharmacology, exposure to faculty research through individual projects in various laboratories, and participation in journal clubs and departmental seminars.

After satisfactory completion of a comprehensive qualifying examination at the end of the second year, the student chooses a dissertation research topic and a faculty advisor. Subsequent years are spent primarily in performing doctoral research. Students also attend seminars given by faculty members, guest speakers, and peers. They interact with these lecturers during special student luncheons. They also give brief presentations about their research projects and discuss and analyze scientific literature in a journal club. They travel to meetings of scientific societies (an expense allowance is provided) and have the opportunity to gain teaching experience.

Research Activities

The faculty of the Pharmacology Graduate Program is composed of 33 scientists from the Pharmacology Department as well as several other departments at the Health Science Center. Current research activities in the department are based upon a multidisciplinary approach to many areas of biomedical research with major strengths in the areas of neuropharmacology, molecular pharmacology, and cardiovascular pharmacology.

- Current investigations in the area of neuropharmacology focus upon the role of serotonergic and adrenergic receptors as mediators of various behaviors and the action of anxiolytic and antidepressant drugs. These include the following: investigation of the interactions between serotonin receptor subtypes and their role in the action of psychotropic drugs; the biological aspects of antidepressant drugs; quantitative autoradiographic characterization of serotonin and adrenergic receptor subtypes in the brain; pharmacoKinetic modeling of serotonin receptor ligands; regulation of central beta-adrenergic and serotonin receptor subtypes; the role of the central noradrenergic system in response to stress and immunocytochemical and in situ hybridization studies of the effect of stress on the expression of the α1 adrenoceptor.
- The cellular and molecular mechanisms which underlie pain and neurogenic inflammation are being investigated at the level of the primary sensory neurons. The role of presynaptic neurotransmitter receptors in modulating neurosecretion from nociceptive sensory neurons as well as the endogenous ligands, drugs, or other substances which activate these receptors is being studied. Of special interest is the role of nicotine and nicotine agonists in activating neurosecretory mechanisms in sensory neurons. At the level of the spinal cord, the role of monoamines and excitatory amino acids in modulating afferent transmission of pain is also being investigated.
- Additional areas of investigation include the role of G proteins in signal transduction and interactions between receptors signal transduction systems; the neuropharmacology of receptor-mediated regulation of neurotransmitter release and the coupling of calcium channels and second messenger systems; electrophysiology and biochemical studies of brain slices and cell cultures; the effect of chronic administration of benzodiazepines, barbiturates, alcohol and neurosteroids on regulation of GABAA receptor binding, function and gene expression, and the effects of alcohol on NMDA function and gene expression.
- Research in molecular pharmacology includes investigations on the following topics: receptor mechanisms involved in regulation of tyrosine hydroxylase gene expression and how the expression of this gene is affected by aging; the use of site-directed mutagenesis, phosphopeptide mapping and kinase assays to characterize the human insulin, its mechanism of receptor signal transduction, and its role in the induction of insulin resistance; molecular evolutionary and molecular modeling studies of vasopressin and oxytocin receptor subtypes; cell cycle regulation of P70 S6 kinase and signal transduction pathways involved in its activation; receptor mechanisms involved in regulating tyrosine hydroxylase gene expression and the various signal transduction mechanisms that mediate the effects of selected neurotransmitters and neuromodulators on tyrosine hydroxylase gene expression.
- Cardiovascular research focuses on the role of the CNS in the regulation of cardiovascular function; the role of various neurotransmitters in the central regulation of sympathetic nervous system function and vasopressin release; the role of estrogen in the regulation of sympathetic nerve function; the mechanism of action, the
hemodynamic and neuroendocrine effects and the interactions of antihypertensive drugs. In addition, studies are in progress that focus on the cellular and molecular responses of the vascular endothelium to hemodynamic stress and the vascular cellular mechanisms involved in arterial restenosis.

• Other investigations include the following: the mechanisms of ethanol-induced fetal neuro- and hepatotoxicity and the role of reactive metabolites in oxidative damage to fetal cell membranes; the investigation of rapid metabolic processes in the CNS utilizing rapid inactivation techniques and chemical and pharmacological characterization of extracts from Oriental folk medicines as potential therapeutic agents.

Funding for these research projects comes from grants and contracts awarded to the Health Science Center on the behalf of individual investigators. The majority of the current funding comes from the National Institutes of Health, including grants from the National Institute on Drug Abuse; the National Heart, Lung and Blood Institute; the National Institute of Neurological and Communicative Disorders and Stroke; the National Institute of Mental Health; the National Institutes on Alcohol Abuse and Alcoholism; and the National Institute of General Medical Sciences. At present, additional support for research is being provided by the American Heart Association, the Howard Hughes Medical Institute, the Pharmaceutical Manufacturers Association Foundation, various pharmaceutical companies, and the Department of Defense.

Requirements for Admission
Applicants for admission must have a B.A. or B.S. degree in a related field. It is suggested that students have completed two semesters of general biology, organic chemistry, general physics, and calculus. In addition, a minimum score (verbal + quantitative) of 1000 on the Graduate Record Examination General (Aptitude) Test and a minimum 3.0 GPA are preferred. Foreign applicants must have a minimum score on the TOEFL examination of 560 on the paper-based exam, 220 on the computer-based test, or 68 on the Internet-based test. Completed applications will be considered beginning January 15th of each year.

Financial Support for Graduate Students
Financial support is awarded on an annual basis to all students enrolled in the Pharmacology Ph.D. program. Stipend support is awarded for at least five years as long as students are enrolled full-time and remain in good academic standing in graduate school. Nonresident students receiving a teaching assistant stipend are eligible for resident tuition rates.

Postgraduate Positions for Program Graduates
Most graduates of the doctoral program in pharmacology have remained in biomedical research. Recent graduates are engaged in postdoctoral training throughout the United States and those who have completed postdoctoral training hold positions as faculty in medical and dental schools or are employed by pharmaceutical companies, private research foundations, biotechnology firms, and government agencies.

Curriculum
A minimum of 72 semester credit hours is required for the attainment of the Doctor of Philosophy degree. Special emphasis is placed on flexibility in the graduate degree program in Pharmacology so it may relate to the interests, purposes and needs of individual students. The curriculum is designed to give students a comprehensive background in the basic biological sciences through coursework in biochemistry, molecular biology, physiology, and neuroscience. Initially, students obtain laboratory experience through a series of laboratory rotations in different research laboratories of the faculty.

Upon successful completion of the required coursework, students are required to pass a comprehensive qualifying examination in pharmacology. The qualifying examination is given when the student has completed the required courses and has met any additional departmental requirements. The Committee on Graduate Studies guides the initial program of study and makes a recommendation for candidacy for the Ph.D. degree based upon the student’s performance on the qualifying examination, in graduate courses, and laboratory rotations.

Following admission to candidacy for the Ph.D. degree, students develop a dissertation research proposal and conduct research under the direction of a faculty advisor and a dissertation supervisory committee. The supervisory committee reviews the student’s choice of research for the dissertation and periodically meets to review the student’s progress. The basis on which the Ph.D. degree is finally awarded is the candidate’s demonstration of acquired skills and knowledge in the selected field of specialization and the ability to do independent research in the area. Upon completion of the dissertation and its acceptance by the supervisory committee, students must pass a Final Oral Examination.

Required Courses for the Ph.D. Degree
The Pharmacology Curriculum is continually reviewed and the format and content of the current graduate courses are revised to incorporate topics of current scientific interest as well as to incorporate changes in the graduate curriculum.

PHAR 5001 Pharmacology
4.0 Semester 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
3.0 Semester Credit Hours
Principles of drug action; receptor classification and quantitation; dose-response relationships; cellular mechanisms of drug action; fun-
damental 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; experimental approaches to drug action.

PHAR 5020 Basics of Research Design
1.5 Semester 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
1.0 Semester Credit Hour
Presentation and discussion of recent advances and research by staff, students, and outside scientists.

PHAR 5092 Special Problems in Pharmacology — Lab Rotations
1.0 Semester Credit Hour
Students will have the opportunity to complete two laboratory rotations in different laboratories by the end of their first year in the graduate program. Laboratory rotation mentors may be selected from the Graduate Faculty of the Pharmacology graduate program who have active research laboratories. Each rotation is a full-semester rotation.

PHAR 6071 Supervised Teaching
Credit to be arranged

PHAR 6097 Research
Credit to be arranged
Independent, original research under the direction of a faculty advisor.

PHAR 7099 Dissertation
Credit to be arranged
Prerequisite: Admission to candidacy for Doctor of Philosophy degree Registration for at least two terms is a Graduate School requirement for all Ph.D. candidates.

Other Required Courses

INTD 6002 Ethics in Research
0.5 Semester Credit Hour
This course will deal with topics relevant to ethics in scientific research. The course will be 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.

INTD 5005 Core Course I: General Biochemistry
4.0 Semester Credit Hours

INTD 5006 Core Course II: Molecular Biology
4.0 Semester Credit Hours

INTD 5007 Core Course III: Cellular Biology
4.0 Semester Credit Hours

CSBL 5095 Experimental Design and Data Analysis
2.0 Semester Credit Hours

Electives

BIOC 6033 Cell Signaling Mechanisms
2.0 Semester 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 inter-cellular mechanism for regulating mediator action.

CSBL 6048 Molecular Biology of Aging
3.0 Semester Credit Hours
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 will be offered to students who wish to either specialize in or have a strong background in the interrelated areas of aging and age-related diseases. Faculty from the Departments of Cellular & Structural Biology, Physiology, Pharmacology and Medicine 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. This course is an elective for all departments.

INTD 5040 Fundamentals of Neuroscience I: Molecular, Cellular, and Developmental Neuroscience
4.0 Semester 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.

INTD 5043 Fundamentals of Neuroscience II: Systems Neuroscience
4.0 Semester 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 5047 Neuroanatomy
3.0 Semester Credit Hours
An interdisciplinary introductory course representing a subset of lectures, labs, and case conferences, all focusing on neuroanatomy, derived from the Medical Neuroscience course. Lecture and lab topics include Gross Neuroanatomy, Neurocytology, Cerebral Circulation, Blood-Brain Barrier, Neurodevelopment, Sensory Receptors, Spinal Reflexes, Cerebellum, Basal Ganglia, and Motor Systems.

Graduate School of Biomedical Sciences  205
INTD 6041  Basic Science Resident Lecture Series in Neurology  
1.5 Semester Credit Hour  
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.

PHAR 5091  Pharmacology Micro-electives  
1.0 Semester Credit Hour  
Micro-electives are courses which 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.  
5091.001 New Views on Monoaminergic Neurotransmission: Are Transporters Important?  
5091.002 Ion Channelopathies in Neurological Disease  
5091.003 Historical Perspectives of Receptor Theory  
5091.004 Cell Membrane Microdomains and Signaling  
5091.005 Neuropeptide Metabolism  
5091.006 Serotonin: From Soup (Transmission) to Nuts (Behavior)  
5091.007 Hot Topics in Advanced Technology in Molecular Pharmacology  
5091.008 Neural Substrates of Regulatory Behaviors: Peptides and Monoamines  
5091.009 Current Issues in Basic Research on Mechanisms of Epilepsy  
5091.010 Appetite Control: Adiposity Hormones and Neuropeptides

PHAR 6020  Molecular and Pharmacological Basis of Therapeutics  
2.0 Semester 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 6024  Neurobiological Basis of Learning and Memory  
2.0 Semester Credit Hours  
This course explores the biological basis of learning and memory with a focus on how the brain stores information. This will be approached from many levels including molecular genetic changes underlying memory, cellular mechanisms of information storage such as long-term potentiation and long-term depression, how networks may represent information, brain regions that subserve memory, and how pharmacological agents and disease states affect memory.

PHAR 6025  Molecular Pharmacology  
2.0 Semester 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 will include molecular mechanisms of drug action, signal transduction and regulation, molecular approaches, and recent advances in areas of molecular pharmacology.

PHAR 6026  Advanced Neuropsychopharmacology  
2.0 Semester Credit Hours  
This course will provide students the opportunity to learn current knowledge of the effects of drugs on the brain that influence behavior.

PHAR 6043  Cardiovascular Pharmacology  
2.0 Semester Credit Hours  
Prerequisite: PHYS 5041 Cardiovascular Physiology  
This course is designed to study the site and mechanism of action of drugs that act on the cardiovascular, renal and autonomic nervous systems. Topics include physiology and pharmacology of the autonomic nervous system; mechanisms of drug modulation at the autonomic neuroeffector junction; the function of norepinephrine at the sympathetic neuroeffector junction; integrative role of the central nervous system in cardiovascular function; cellular and molecular biology of vascular smooth muscle; vascular smooth muscle and endothelial cell signal transduction; and pharmacology of the renin-angiotensin system.

PHAR 6050  Techniques in Pharmacology  
2.0 Semester Credit Hours  
This is a laboratory practicum course consisting of 7 laboratory units loosely organized around a common research theme: β-adrenergic receptor mechanisms in relation to autonomic control of the heart. Each unit consists of one hour of lecture and 8–12 hours of laboratory practicum in 3–4 hour sessions. The course is designed to provide information and hands-on practical laboratory experience in techniques and approaches that are both mainstream and state-of-the-art in modern multidisciplinary pharmacological research.
PHYSIOLOGY

The graduate program in Physiology provides students with the opportunity to develop academic and experimental skills necessary to pursue careers in scientific research. The program emphasizes the Ph.D. degree, but a Master of Science Degree is offered on a case-by-case basis for students with specific goals that require such training. A Master of Science degree program designed specifically for K-12 teachers is also offered.

Through formal coursework in broad areas of physiology, as well as cognate areas such as molecular and cellular biology, biochemistry, and pharmacology, students in the early stages of training may gain knowledge about mechanisms of body function. Students are expected to participate in the research programs of the faculty. This background experience is designed to help students determine a particular area of scientific interest and to select an original research project. The successful completion of this research endeavor culminates in the thesis or dissertation that represents an original contribution to scientific knowledge.

Research Activities
Research conducted by Program faculty and students is funded by both private and government agencies.

Molecular Physiology and Biophysics
Research in molecular physiology and biophysics is focused on the relationship between the structure of biological molecules and their function in living organisms. This area makes particular use of quantitative measurements and analysis, combining the methods of chemistry, physics, biology, and mathematics, to study how living organisms work. Techniques include combinations of patch-clamp electrophysiology (including single-channel recording), molecular cloning, and site-directed mutagenesis of proteins, fluorescence measurements, and spectroscopy. Specific research areas under investigation include molecular sites of protein-protein interactions and mechanisms of ion channel gating and permeation.

Cellular Physiology
Regulation of physiological functions is an important focus of Program faculty. A combination of confocal ion imaging, electrophysiology, as well as recombinant DNA techniques, focus on understanding how a family of endoplasmic reticulum luminal lectin chaperones modulate intracellular calcium oscillations, a principal determinant of cell signaling. Research on the cellular mechanisms and intracellular signaling pathways controlling sodium ion and water handling by the kidney are performed to better understand how humans maintain body fluid homeostasis and blood pressure. A combination of electrophysiological techniques (whole cell and single channel patch clamp recordings) in addition to biochemical and molecular biological tools are used to investigate the role and regulation of ion channels in specific physiological processes.

Cardiovascular Physiology
Program research in cardiovascular physiology is diverse and directed toward understanding mechanisms that regulate organ blood flow, thermoregulation, cardiac fibrosis/remodeling, and the activity of sympathetic-regulatory neurons in the brain. Research approaches include cultured cells, isolated organs, brain slice preparations, intact animals, transgenic and gene-targeted mice, and human studies.

Gastrointestinal Physiology
Studies focus on the regulation, expression, and physiological significance of newly discovered gastrointestinal regulatory luminal peptides. Relationships between these luminal peptides and the release of other gastrointestinal hormones and enzymes involved in gastric function, pancreatic function, and in the regulation of food intake are being investigated.

Neurophysiology and Autonomic Neuroscience
Studies focus on the physiology of specific neuronal populations that control autonomic nervous system activity and how these neurons regulate cardiovascular, neurological, and psychiatric/mental disease. Current studies focus on how forebrain, hypothalamic and brainstem neurons contribute to autonomic disturbances that accompany angiotensin II- and sodium-sensitive models of hypertension as well as congestive heart failure. Other studies focus on G-protein and tyrosine kinase signaling pathways that act on the M-type neuronal K+ channel that is modulated by muscarinic acetylcholine receptors. Additional studies focus on genetically modified large conductance K+ (BK+) channels and the impact these channels have on homeostatic functions of the heart and brain.

Physiology of Aging
The role of genes and hormonal changes in aging and extending life span is being studied using transgenic and knockout mouse models as well as mammalian cell models of cellular senescence. Unique animal models are being developed to study the effect of altering the expression of genes involved in the antioxidant defense system or DNA repair on life span and age-related pathologies. In addition, special transgenic/knockout animal models with alterations in specific hormonal systems, e.g., IGF1, insulin, growth hormone, and glucocorticoids, are being used to study the role of hormones in the aging process. In addition, cell/tissue therapies are being developed as potential treatments for age-related diseases.

Endocrine Physiology
The role of peptides regulating the hypothalamic-pituitary-adrenal and hypothalamic-pituitary-reproductive axes are being developed and studied. Other studies focus on the effects of age and food restriction on intracellular proteolytic mechanisms and insulin receptor signal transduction and
Renal Physiology
Research into Renal Physiology focuses on understanding the role of the two functional units of the kidney: the renal corpuscle and the renal tubule. The renal corpuscle is a highly vascularized element that controls filtration of the blood. The renal tubule is comprised of epithelial cells that vectorially transport solute and electrolytes to fine-tune plasma volume and content. This research program is primarily at the cellular and molecular level with strong emphasis on the functional role of ion channels in modulation of filtration and transport. This research program entails use of several different but complimentary scientific methodologies, including contemporary cell biology, biochemistry, molecular biology, fluorescence microscopy and electrophysiology, as well as sophisticated model systems. Kidney function impacts numerous aspects of human health, including blood pressure regulation and cardiovascular wellness, and thus, this area of investigation is directly relevant to many common diseases.

Musculoskeletal Physiology
Studies focus on molecular mechanisms that regulate growth and development of the craniofacial, appendicular, and axial skeleton. The role of blood vessel- and cartilage-derived peptides on endochondral ossification and chondrocyte proliferation and hypertrophy is being determined using specialized genetic animal models. Other studies are investigating the impact of transgenic modification of anti-oxidant defense enzymes on cardiac and skeletal muscle performance in response to physiological and pathophysiological stresses.

Requirements for Admission
Applicants for admission to the program must have earned a B.S. or B.A. degree from an accredited university or college. A minimum score (verbal + quantitative) of 1000 on the Graduate Record Examination (General Aptitude Test) and a minimum GPA of 3.0 is preferred. In addition, students will be expected to have completed the following undergraduate courses:

- **Biology:** One year of general biology
- **Chemistry:** One year of organic chemistry; physical chemistry (recommended)
- **Physics:** One year of general physics
- **Mathematics:** Differential and integral calculus

Applicants with deficiencies in required undergraduate courses may be admitted contingent upon such deficiencies being removed prior to, or during, the first year of graduate study. Applicants to the K–12 M.S. program may take the Miller’s Analogy Test instead of the Graduate Record Examination. Applications and supporting documents should be submitted to the Office of the Registrar by February 15 for early Fall admission and April 1 for the second admissions cycle. Applications received during the second cycle are considered on a space-available basis.

Financial Support for Graduate Students
Stipends are available for qualified students. The Department of Physiology offers assistantships in the amount of $21,500/year to full-time students in good academic standing. Assistantships are renewed on a yearly basis for up to five years commensurate with the demonstration of satisfactory progress.

Curriculum
Students pursuing the Ph.D. degree are expected to develop a comprehensive knowledge of physiology, which will be assessed by their performance in coursework. Introductory level graduate courses cover fundamental information in biochemistry; statistics; experimental technique; and molecular, cellular, and systems level physiology. Advanced graduate physiology courses emphasize interpretation of the current primary literature. In addition, a student must pass a comprehensive qualifying examination at the end of her/his second year. A public defense of the dissertation, which represents an original contribution to biomedical science and which is publishable quality in reputable, scholarly journals, is required of all candidates for the Ph.D. A minimum of 72 semester credit hours is required in order to obtain a Ph.D.

Required Courses for the Ph.D. Degree

**PHYL 5045** Mammalian Physiology  
*4.0 Semester Credit Hours*

This course begins with the 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, and endocrine/metabolic physiology. Lecture material is enhanced by supplemental discussion of research literature encompassing molecular biology, integrative function, and pathophysiological implications.

**PHYL 5080** Experiments in Physiology I  
*1.0 Semester Credit Hour*

This experimental course is designed to provide practical demonstrations in basic recombinant DNA techniques and to illustrate how the application of these techniques helps in advancing our current understanding of cellular physiology.

**PHYL 5081** Experiments in Physiology II  
*1.0 Semester Credit Hour*

This course includes laboratory exercises in cardiovascular and respiratory physiology as well as autonomic pharmacology and is integrated with PHYL 5045.

**PHYL 6090** Seminar  
*1.0 Semester Credit Hour*  
**Prerequisite:** Consent of instructor

Literature reports and group discussions by students and faculty.
INTD 6002 Ethics in Research  
0.5 Semester Credit Hours

INTD 5005 Core Course I: Biochemistry  
4.0 Semester Credit Hours

INTD 5006 Core Course II: Molecular Biology  
4.0 Semester Credit Hours

INTD 5007 Core Course III: Cell Biology  
4.0 Semester Credit Hours

PATH 5021 Biostatistics  
3.0 Semester Credit Hours  
or  
CSBL 5095 Experimental Design & Data Analysis  
2.0 Semester Credit Hours

PHYL 6071 Supervised Teaching  
1.0 Semester Credit Hour  
Prerequisite: Consent of instructor
Presentation of lectures and supervision of conferences under the direction of instructors.

PHYL 6097 Research  
Credit to be arranged  
Research under supervising professors' direction.

PHYL 7099 Dissertation  
Credit to be arranged  
Prerequisite: Admission to candidacy for Doctor of Philosophy degree  
Registration for at least two terms is required of Ph.D. candidates.

Electives

PHYL 6091 Selected Topics of Physiology  
1.0–4.0 Semester Credit Hours  
Prerequisite: Consent of instructor
Students must take a least two courses selected from among the offerings in:

- PHYL 6091-01 Cardiovascular
- PHYL 6091-02 Calcium Signaling
- PHYL 6091-03 Cell Biology in Neural Science
- PHYL 6091-04 Endocrine and Metabolism
- PHYL 6091-05 Molecular Physiology
- PHYL 6091-06 Physiology in Aging
- PHYL 6091-07 Ion Channels in Disease

M.S. DEGREE TRACK FOR K–12 TEACHERS

The Graduate Program in Physiology offers a specific track of study for primary and secondary science teachers that leads to a Master of Science Degree in Physiology. Applicants must have a bachelor's degree from an accredited institution in the U.S. or proof of an equivalent degree and training at a foreign institution.

The M.S. Degree track in Physiology for K–12 teachers requires enrollment in both fall and spring semesters of two consecutive school years plus the summer semester between the two school years. Enrollment will be for 6 hours of credit each semester. All courses during the school year are in the evening. Completion of 30 credit hours is required for the M.S. Degree.

PHYL 5011 Discovery of Physiological Principles I  
2.0 Semester Credit Hours  
Prerequisite: concurrent enrollment in Cell Structure and Function  
The course includes discussion of historic discoveries and ethical research issues in physiology, development of laboratory skills, analysis of laboratory demonstrations, and participation in laboratory experiments in areas covered in Cell Structure and Function.

PHYL 5014 Discovery of Physiological Principles II  
2.0 Semester Credit Hours  
Prerequisite: concurrent enrollment in Organ System Physiology I  
The course includes discussion of historic discoveries and ethical research issues in physiology, development of laboratory skills, analysis of laboratory demonstrations and participation in laboratory experiments in areas covered in Organ System Physiology I.

PHYL 5017 Discovery of Physiological Principles III  
2.0 Semester Credit Hours  
Prerequisite: concurrent enrollment in PHYL 5025  
The course consists of laboratory demonstrations and experiments in areas covered in Organ Systems Physiology II and acquisition of skills for analyzing and communicating the results of laboratory research.

PHYL 5021 Cell Structure and Function  
4.0 Semester Credit Hours  
Prerequisite: concurrent enrollment in Discovery of Physiological Principles I  
The focus of this course is on physiology of the cell. Areas to be studied include cell structures and their biological roles; characteristics, roles, synthesis, and utilization of proteins, carbohydrates, and lipids in the cell; mechanisms of exchange of materials between cell and environment; and mechanism of excitability in nerve and muscle cells.

PHYL 5024 Organ Systems Physiology I  
4.0 Semester Credit Hours  
Prerequisites: Cell Structure & Function & Discovery of Physiological Principles I; concurrent enrollment in Discovery of Physiological Principles II  
A study of the mechanisms that produce and control the functions of about one-half of the body's organ systems.

PHYL 5025 Organ Systems Physiology II  
4.0 Semester Credit Hours  
Prerequisites: Cell Structure & Function, Organ System Physiology I, Discovery of Physiological Principles I, Discovery of Physiological Principles II  
A continuation of the study, begun in Organ Systems Physiology I, of the mechanisms that produce and control the functions of the body's organ system.

PHYL 5026 Physiology in Everyday Life and Medicine  
3.0 Semester Credit Hours  
Prerequisite: Cell Structure & Function, Organ System Physiology I, and Organ System Physiology II  
Application of physiological principles to the understanding of selected issues related to life cycle, well being, and disease.
RADIOLOGICAL SCIENCES

The graduate program in Radiological Sciences is designed to prepare students to participate in the development and transmission of scientific knowledge concerning the uses of radiant energy forms in the diagnosis and treatment of human diseases. The degrees offered are: (1) Ph.D. or Master of Science degree specializing in Medical Physics, (2) Ph.D. degree specializing in Radiation Biology (includes program for MD residents in Radiology, Radiation Oncology, or Psychiatry to obtain PhD in Human Imaging track), 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.

Research Activities

The research program in Radiological Sciences acts as a bridge between basic sciences and the application of such knowledge in the diagnostic and therapeutic processes of medicine. Exceptional facilities are available in the areas of nuclear magnetic resonance imaging, computer image analysis, nuclear medicine imaging, x-ray imaging, gamma-ray irradiation, microwave irradiation, and chemical analysis of contrast agents. Ongoing research programs cover a wide range of modern imaging, irradiation effects, and radiation applications. These programs are supported by grants from federal and private agencies. Extensive facilities are available to aid in the study of a wide range of radiation interaction problems in biological materials.

Requirements for Admission

In addition to meeting the general requirements for admission to the Graduate School of Biomedical Sciences, applicants to the program in Radiological Sciences must have obtained a baccalaureate degree in natural science or engineering. A baccalaureate degree in some 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:

**Biology:**
Two semesters of general biology (two years for Radiation Biology)

**Chemistry:**
Two semesters of general chemistry (through biochemistry for Radiation Biology)

**Physics:**
Two years of general physics (two semesters for Radiation Biology)

**Mathematics:**
Through calculus and ordinary differential equations

**Computer Science:**
Introduction to Computer Science (one semester)
Additional Prerequisites for Medical Physics Applicants:
1. GRE: Require Physics GRE as well as general exam.
2. Math: Four semesters of Calculus. Students must indicate courses providing experiences with linear algebra and Fourier analysis.
3. Physics: BA in Physics or appropriate science or engineering that includes at least an upper-level course in E&M, two additional upper-level courses such as modern physics, classical mechanics, introductory quantum mechanics, or thermodynamics.

Although students may be admitted with deficiencies which can be eliminated by successfully completing approved courses at other institutions, all deficiencies must be removed before admission to candidacy for a degree.

Financial Support for Graduate Students
Financial support for students is provided through teaching and graduate assistantships which are awarded on a competitive basis.

Curriculum
The Master of Science degree requires a minimum of 30 semester credit hours of graduate work. For the Ph.D. degree, 42 semester credit hours are required above the minimum of 30 required for admission to candidacy. Students are expected to successfully complete the required courses in addition to a selection of advanced courses. Required courses and any electives will be determined for each student, in consultation with her/his graduate advisor, as an educational plan is designed to meet specific career goals.

Master of Science degree candidates must complete required courses, pass a qualifying examination, formulate an original research proposal, and carry out the research and defense of a thesis. The Ph.D. student is eligible for admission to candidacy after completing required coursework, passing a qualifying examination, and demonstrating proficiency as an independent researcher. Following admission to candidacy, the student must complete an original research project and orally defend a dissertation. The Ph.D. degree is awarded when the candidate has demonstrated competence in conducting original and independent research in the general area of radiological sciences.

A combined MD residency/PhD degree program in Human Imaging is a new alternative in Radiation Biology. The intent is to reinvigorate the clinical research infrastructure that previously brought clinical innovations using CT, MRI, PET, Computed Radiography, and a host of clinical computed imaging protocols to positions of critical importance in medicine. Human imaging research with these devices will be of expanding importance in 21st century medicine. The program provides for research in clinical departments geared toward the next steps in the evolution of human imaging-based diagnosis and therapy. Greater research effectiveness in the medical specialties of Radiology, Radiation Oncology, and Psychiatry is promoted through collaborative arrange-ments for Medical Residency in these specialties integrated with research training. The new program thus combines the proven effectiveness of graduate school research education techniques with rigorous clinical residency training to create a new cadre of research leaders for academic medicine. The PhD degree requires graduate imaging courses in addition to MD basic science courses.

Required Courses for the Ph.D. Degree

INTD 6002 Ethics in Research
0.5 Semester Credit Hour
This course will deal with topics relevant to ethics in scientific research. The course will be 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.

RADI 5015 Physics of Diagnostic Imaging I
3.0 Semester 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 using computed tomography, ultrasound, and magnetic resonance.

RADI 5025 Basic Radiation Biology
1.5–3.0 Semester Credit Hours
Prerequisite: consent of instructor
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 5050 Human Electrophysiology: Brain
3.0 Semester Credit Hours
Prerequisites: BIO 4813 (or PSY 4183 and PSY 3103) and BIO 3433, or consent of instructor
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.

RADI 5090 Seminars in Radiological Sciences
1.0 Semester Credit Hour
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 6024 Radiological Anatomy and Physiology
3.0 Semester 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.
Radioactive materials on campus. Successful participants will earn this course fulfill UTHSCSA training requirements in order to use radiation sources in the biomedical research setting. The contents of this course will cover the safe receipt, use, storage, and disposal of in the research, diagnostic, and therapeutic uses of radiation sources. This course provides the student with the opportunity to gain a conceptual understanding of the radiation protection principles involved as components of their global project. Students are encouraged to select their project topic, but emphasis is on Diagnostic and Therapy uses; and safety considerations.

**Electives**

**INTD 5046 Mind & Brain: Metanalysis in Human Brain Mapping**

*2.5 Semester 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. The students are graded under four categories: Mid-Term Test (25%), Final Paper (25%), Final Oral Presentation (25%), and over all Class Participation (25%).

**BIOC 5011 General Biochemistry**

*5.0 Semester Credit Hours*

*Prerequisites: General chemistry, organic chemistry and physics*

This course is a survey of the field of biochemistry.

**CSBL 5035 Cellular Biology**

*5.0 Semester Credit Hours*

This course is an introduction to the cell, the molecular organizations of cells and their development into multicellular organisms.

**RADI 0001 Object-Oriented Programming for Physicists**

*3.0 Semester Credit Hours*

A course designed to teach students to design and implement a large programming project in the C-language. The programming homework assignments are designed so that students can integrate them as components of their global project. Students are encouraged to select their project topic, but emphasis is on Diagnostic and Therapy Physics applications.

**RADI 5001 Basic Radiation Safety in the Laboratory**

*1.0 Semester 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 UTHSCSA training requirements in order to use radioactive materials on campus. Successful participants will earn three UTHSCSA safety certificates of completion: Basic Radiation Safety Training, Basic Laser Safety Training, and Basic Laboratory Safety Training.

**RADI 5005 Fundamentals of Radiation Dosimetry**

*3.0 Semester 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 5010 Medical Biophysics**

*3.0 Semester 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**

*3.0 Semester 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 5018 Physics Measurements in Imaging**

*2.0 Semester Credit Hours*

*Prerequisite: Simultaneous enrollment in RADI 5015*

This is a laboratory course focusing on performance of measurements used in quality assurance (QA), system characterization, and acceptance testing of medical imagers.

**RADI 5020 Principles of Health Physics I**

*3.0 Semester Credit Hours*

This course covers basic principles of protection dealing with the major forms of ionizing radiation are presented.

**RADI 5030 Neuroscience Imaging Laboratory**

*1.0 Semester 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 5012 Physics of Nuclear Medicine**

*3.0 Semester Credit Hours*

*Prerequisite: RADI 5011*

This course is a study of physical principles of planar, SPECT and PET radionuclide imaging; instrument theory; dosimetry; computer uses; and safety considerations.

**RADI 6014 Physics of Dental Imaging**

*2.0 Semester 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.

**RADI 6016 Advanced Diagnostic Imaging**

*3.0 Semester Credit Hours*

*Prerequisite: RADI 5015*

This course includes theory and applications of various forms of electronic imaging systems; advanced diagnostic imaging principles
involved mathematical image analysis, digital image processing, digital image display and concepts of electronic imaging.

**RADI 6017 Neuroimaging Methods**

*3.0 Semester Credit Hours*

This course covers the use of noninvasive brain imaging techniques to study functional organization of the human brain. Methods covered include positron-emission tomography (PET), event-related potentials, magneto-encephalography, and magnetic resonance imaging. Brain functions addressed include perception, action, emotion, and cognition.

**RADI 6018 Advanced Topics in Neuroimaging Methods**

*3.0 Semester Credit Hours*

This course is designed to explore the use of noninvasive imaging techniques and strategies to study the functional organization of the human brain. It covers the paradigms used for studying a variety of brain functions including perception, action, emotion, and cognition.

**RADI 6019 Medical Image Processing**

*3.0 Semester Credit Hours*

Prerequisite: RADI 6016 Physics of Diagnostics Imaging II

This course is an introduction to the basic principles of image processing as applied to digital radiography, computed tomography, ultrasound and magnetic resonance images.

**RADI 6020 Advanced Topics in Cognitive Neuroscience**

*3.0 Semester Credit Hours*

This course is designed to explore the use of noninvasive imaging techniques and strategies to study the functional organization of the human brain. It covers current research and developments in brain mapping in both health and disease.

**RADI 6023 Clinical Medical Physics Laboratory**

*1.0–9.0 Variable Semester Credit Hours*

This course offers the opportunity for medical physics students to work directly with professional medical physicists in a clinical setting.

**RADI 6028 Advanced Molecular Radiobiology**

*3.0 Semester Credit Hours*

Prerequisite: RADI 5025

This course covers the mechanisms of action of ionizing and non-ionizing radiation on cells and molecules.

**RADI 6030 Physics of Radiotherapy**

*3.0 Semester 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**

*2.0 Semester 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**

*3.0 Semester 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 Radiotherapy Clinical Practices**

*3.0 Semester Credit Hours*

Prerequisite: RADI 6030

Students have the opportunity to participate in calibration measurements and procedures for a wide variety of radiotherapy units while receiving clinical training at participating institutions under the supervision of a clinical physicist.

**RADI 6036 Principles of Computer-Aided Dosimetry**

*3.0 Semester Credit Hours*

This course is designed for students specializing in physics of radiation therapy and potential students should talk to the instructor before enrolling. The course is very labor intensive and requires considerable time to develop the necessary programs and is oriented towards program development rather than classroom lectures.

**RADI 6042 Non-ionizing Radiation Biology**

*1.0–3.0 Semester 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 Introduction to Magnetic Resonance**

*2.0 Semester 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**

*2.0 Semester Credit Hours*

Prerequisite: RADI 6049

This course explores the physics of magnetic resonance image formation through discussion of imaging problems, reviews of current research topics, and hands-on experience in MRI laboratories.

**RADI 6051 Biomedical Magnetic Resonance**

*2.0 Semester Credit Hours*

This course covers the principles of MR spectroscopy and MR imaging as applied to the noninvasive assessment of biochemistry and physiology in living systems.

**RADI 6060 Biophotonics and Optical Imaging**

*3.0 Semester 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. The course grade will be based on one exam given during the course, and a final term paper on a topic chosen by the student and approved by the instructors.

**RADI 6062 Cognitive Neuroscience**

*2.0 Semester 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 of neurocognitive development and the evolution of the human brain. Unlike courses in basic neuroscience, Cognitive Neuroscience 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 should (a) be highly familiar with the structure of the human nervous system, (b) be conversant about the physical basis and limitations of neuroimaging techniques, (c) be 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 (d) understand how psychological theory and neural theory come together to form the foundation of cognitive neuroscience.

RADI 6072 Critical Skills in Writing Research Papers and Grant Applications
2.0 Semester Credit Hours
This course provides a linkage and critical new information for students who are now or will soon be preparing research papers for publication and submitting grant or other extramural funding proposals. It provides a linkage between courses dealing with study design and statistical analyses and their practical application in writing research documents. Using the standard PHS 398 application form the various elements of research writing and grant submission will be presented and knowledge of rules of usage are presented. Each student is expected to complete a full PHS 398 application on a topic of her or his choice.

RADI 6091 Current Topics in Radiological Sciences
2.0 Semester 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.

COORDINATE GRADUATE COURSES
The following courses are offered to provide computational and statistical background pertinent to the design and interpretation of experimental research projects.

PATH 5021 Biostatistics
3.0 Semester Credit Hours
Prerequisite: 1 semester of calculus or consent of instructor
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.

PATH 5025 Individual Study in Biometry
Credit to be arranged
Prerequisite: Consent of instructor
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.

CLINICAL LABORATORY SCIENCES
The Master of Science degree in Clinical Laboratory Sciences (described in the School of Allied Health Sciences section of this Catalog) is administered by the Graduate School. Students in the program follow procedures and policies of the Graduate School of Biomedical Sciences.

DENTISTRY
Master's degree programs in Dental Diagnostic Science, Endodontics, Periodontics, and Prosthodontics (described in the Dental School section of this Catalog) are administered by the Graduate School. Students in these programs follow procedures and policies of the Graduate School of Biomedical Sciences.

DENTAL HYGIENE
The Master of Dental Hygiene program (described in the School of Allied Health Sciences section of this Catalog) is administered by the Graduate School of Biomedical Sciences. Students in the program follow procedures and policies of the Graduate School of Biomedical Sciences.

NURSING
Graduate programs leading to the Master of Science in Nursing and the Doctor of Philosophy degrees (described in the School of Nursing section of this Catalog) are administered by the Graduate School. Students in these programs follow procedures and policies of the Graduate School of Biomedical Sciences.
INTERDISCIPLINARY COURSES

INTD 5067  Introduction to Computational and Systems Biology
2.0 Semester Credit Hours
This course will be taught by faculty from Biochemistry, Cellular & Structural Biology, Children’s Cancer Research Institute, Periodontics, and faculty from UTSA. The course is an introduction to methods and tools for working with DNA sequences, 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 data sets, proteomics, structural methods for protein/biology, chemoinformatics, molecular modeling, and mathematical model building.
### Fall 2005

<table>
<thead>
<tr>
<th>Date</th>
<th>Activity</th>
<th>Student Group</th>
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<tbody>
<tr>
<td>Monday, May 02, 2005</td>
<td>Registration-Web Opens for Fall 2005</td>
<td>Continuing students</td>
</tr>
<tr>
<td>Wednesday, June 01, 2005</td>
<td>Registration-Course Cards for Fall 2005</td>
<td>New</td>
</tr>
<tr>
<td>Wednesday-Friday, August 24-26, 2005</td>
<td>Orientation &amp; Registration-New Students only</td>
<td>New</td>
</tr>
<tr>
<td>Monday, August 29, 2005</td>
<td>1st Class Day</td>
<td>All</td>
</tr>
<tr>
<td>Monday, September 05, 2005</td>
<td>*University Holiday (Offices Closed)</td>
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<tr>
<td>Wednesday, September 14, 2005</td>
<td>Census Day</td>
<td>All</td>
</tr>
<tr>
<td>Thursday, November 24, 2005</td>
<td>*University Holiday (Offices Closed)</td>
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<tr>
<td>Friday, November 25, 2005</td>
<td>*University Holiday (Offices Closed)</td>
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<tr>
<td>Friday, December 23, 2005</td>
<td>Term Concludes</td>
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</tr>
<tr>
<td>Friday, December 23, 2005</td>
<td>Graduation (No Ceremony)</td>
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*University Holidays Tentative

### Spring 2006

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<thead>
<tr>
<th>Date</th>
<th>Activity</th>
<th>Student Group</th>
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<tbody>
<tr>
<td>Tuesday, November 01, 2005</td>
<td>Registration-Course Cards for Spring 2006</td>
<td>New</td>
</tr>
<tr>
<td>Tuesday, November 01, 2005</td>
<td>Registration-Web Opens for Spring 2006</td>
<td>Continuing students</td>
</tr>
<tr>
<td>Wednesday-Friday, January 11-13, 2006</td>
<td>Orientation &amp; Registration-New Students only</td>
<td>New</td>
</tr>
<tr>
<td>Monday, January 16, 2006</td>
<td>*University Holiday (Offices Closed)</td>
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<tr>
<td>Tuesday, January 17, 2006</td>
<td>1st Class Day</td>
<td>All</td>
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<tr>
<td>Wednesday, February 01, 2006</td>
<td>Census Day</td>
<td>All</td>
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<tr>
<td>Monday, February 20, 2006</td>
<td>*University Holiday (Offices Closed)</td>
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<tr>
<td>Monday, March 13, 2006</td>
<td>Spring Break Begins</td>
<td>All</td>
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<tr>
<td>Friday, March 17, 2006</td>
<td>Spring Break Ends</td>
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<tr>
<td>Thursday, May 18, 2006</td>
<td>Graduation Rehearsal</td>
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<tr>
<td>Friday, May 19, 2006</td>
<td>Term Concludes</td>
<td>All</td>
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<tr>
<td>Friday, May 19, 2006</td>
<td>Graduation-UTHSCSA Auditorium</td>
<td>4:00 PM</td>
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<tr>
<td>Monday, May 29, 2006</td>
<td>*University Holiday (Offices Closed)</td>
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*University Holidays Tentative

### Summer 2006

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<th>Activity</th>
<th>Student Group</th>
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<tbody>
<tr>
<td>Monday, April 03, 2006</td>
<td>Registration-Course Cards for Summer 2006</td>
<td>New Students only</td>
</tr>
<tr>
<td>Monday, April 03, 2006</td>
<td>Registration-Web Opens for Summer 2006</td>
<td>Continuing students</td>
</tr>
<tr>
<td>Wednesday-Friday, May 24-26, 2006</td>
<td>Orientation &amp; Registration-New Students only</td>
<td>New</td>
</tr>
<tr>
<td>Monday, May 29, 2006</td>
<td>*University Holiday (Offices Closed)</td>
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</tr>
<tr>
<td>Tuesday, May 30, 2006</td>
<td>1st Class Day</td>
<td>All</td>
</tr>
<tr>
<td>Friday, June 09, 2006</td>
<td>Census Day</td>
<td>All</td>
</tr>
<tr>
<td>Tuesday, July 04, 2006</td>
<td>*University Holiday (Offices Closed)</td>
<td></td>
</tr>
<tr>
<td>Friday, August 18, 2006</td>
<td>Term Concludes</td>
<td>All</td>
</tr>
<tr>
<td>Saturday, August 19, 2006</td>
<td>Graduation (No Exercises)</td>
<td>All</td>
</tr>
</tbody>
</table>

*University Holidays Tentative

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Note: The 2006–2007 Academic Calendar will be made available on the Student Services Web in the Fall.
Mission
The mission of the UTHSCSA Medical School is to serve the needs of the citizens of Texas by providing medical education and training to medical students and physicians at all career levels in an environment that is flexible and emphasizes professionalism with special commitment to the preparation of physicians in both the art and science of medical practice; conducting biomedical and other health-related research paying particular attention to translational research; delivering exemplary quality health care; and providing a responsive resource in health-related affairs for the nation and the state, with particular emphasis on South Texas.

Accreditation
The Medical School is fully-accredited by the Liaison Committee on Medical Education, the body recognized by the U.S. Department of Education for accreditation of programs of medical education leading to the M.D. degree in the United States.

Admission and Application
Information about specific admission requirements are detailed in the Applicant Viewbook of the Medical School. 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. Applicants must take the Medical College Admissions Test (MCAT) no later than August of the year preceding anticipated matriculation and direct that scores be sent to The Texas Medical and Dental Schools Application Service in Austin, which is also the source of the Web-based application forms. The cut-off date for reporting MCAT scores is December 1 of the year preceding matriculation. Scores from later administrations of the MCAT may be considered for purposes of selecting students from the alternate pool.

Acceptance Considerations
Candidates for admission are evaluated not only on the basis of their academic background and preparation for medical school, but also for integrity, maturity, motivation, judgment, and resourcefulness. The Committee on Admissions evaluates each candidate’s application to make an assessment of the individual’s academic background, performance on the Medical College Admission Test (MCAT), the recommendation of the premedical advisor, and the person’s nonacademic achievements. Further evaluation of the most promising candidates is made by means of personal interviews, invitations for which are issued by the Admissions Committee.

The same criteria for evaluation are applied to all candidates, and no distinctions are made in favor of or against any applicant based on age, race, or sex. 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.

The Medical School will announce its initial acceptances on February 1. Afterwards, acceptances will continue from a pool of alternates until all positions in the class are filled. 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 professional schools of The University of Texas System reserve the right to withdraw offers of acceptance to individuals who hold places in the entering classes of more than one professional school for longer than three weeks without previous justification by the applicant and consent by the schools involved.

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.

Advanced Standing
The acceptance of students with advanced standing is dependent upon the availability of clinical and academic facilities. Each year the Medical School 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 a LCME-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 Medical School in San Antonio 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 nonresident of the State of Texas may be enrolled with advanced standing if the result of that enrollment would increase to greater than ten percent the percentage of non-residents enrolled in the class of which the student would be a member.

Application forms and inquiries concerning advanced standing admission should be obtained from and addressed to
the Office of the Associate Dean for Academic Affairs of the Medical School.

Scholarships
Limited scholarship assistance is available within the Medical School. General scholarships are initially awarded based on a student’s admission ranking as determined by the Admissions Committee following a review of all admission criteria factors. For those scholarships which are donor-designated, selection is based on criteria established by the donor. Application is unnecessary for either category. Scholarships may be renewable depending upon academic performance and/or conditions stated by donors.

Academic Advising
Five major resource areas provide academic and personal advising for medical students. These are the Associate Dean for Academic Affairs, the Associate Dean for Student Affairs, Course and/or Clerkship Directors, Veritas Group Leaders, and the UTHSCSA Counseling Service.

Each entering student is assigned to a Veritas Group. Veritas Groups provide continuity of faculty advising throughout the Medical School experience. For students who encounter academic difficulty, the course director or clerkship director is the first line of consultation. Both the Associate Dean for Academic Affairs and the Associate Dean for Student Affairs monitor students’ progress through interaction with faculty in an effort to identify problems early and intervene if necessary.

The UTHSCSA Counseling Office may be helpful to some students encountering academic difficulties, especially in helping the student to review study skills and learning style. This office and the other resources listed above may also be helpful if students encounter issues of personal concern. The UTHSCSA Office of Student Life may also be helpful in this latter regard.

Student Background Check Policy
I. Applicability
This policy applies to applicants who have received an offer of admission to 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.

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 UTHSCSA Medical School. An offer of admission will not be final until the completion of the background check(s) with results deemed as satisfactory. Admission may be denied or rescinded based on a review of the background check.

Additionally, students who are currently enrolled and who do not have a valid background check must submit to, and satisfactorily complete, a background check review as a condition to enrolling or participating in education experiences at affiliated sites as required.

Students who refuse to submit to a background check or do not pass the background check review may be dismissed from the program.

Applicants who have received an offer of admission or students who are dismissed may seek admission into another educational program that does not have a clinical component requirement in its curriculum.

III. Rationale
A. 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.

B. Clinical facilities are increasingly required by accreditation agencies, such as Joint Commission of Healthcare Organization (JCAHO), 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.

C. Clinical rotations are an essential element in medical school curriculum. Students who cannot participate in clinical rotations due to criminal or other adverse activities that are revealed in a 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 in everyone’s interest to resolve these issues prior to a commitment of resources by the UTHSCSA Medical School, the student or applicant.

D. The UTHSCSA Medical School is obligated to meet the contractual requirements contained in affiliation agreements between the university and the various health-care facilities.

IV. Background Check Report
A. Obtaining a Background Check Report: The UTHSCSA Medical School will designate approved company(ies) to conduct the background checks and issue reports directly to the UTHSCSA Medical School. Results from a company other than those designated will not be accepted. Students and applicants who have received an offer of admission must contact a designated company and comply with its instructions in authorizing and obtaining a background check. Students and applicants who have received an offer of admission are responsible for payment of any
fees charged by a designated company to provide the background check service.

B. **Scope**: Background checks include the following and cover at least the past seven years:
   - Criminal history search, including convictions, deferred adjudications or judgments, and pending criminal charges involving felonies, Class A, Class B, and Class C violations
   - Social Security Number verification
   - Violent Sexual Offender and Predator Registry search
   - Office of the Inspector General (OIG) List of Excluded Individuals/Entities
   - General Services Administration (GSA) List of Parties Excluded from Federal Programs
   - U. S. Treasury, Office of Foreign Assets Control (OFAC), List of Specially Designated Nationals (SDN)
   - Applicable State Exclusion List

C. **Rights**: Students and applicants who have received an offer of admission 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 UTHSCSA Medical School will provide applicants or students a copy of or access to the 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 Medical School.

V. **Procedure**

A. **Applicants**
   1. Applicants must complete the required background check screening following the offer of admission but prior to matriculation.
   2. The background check report will be submitted to the Background Check Review Committee for its review. If the report contains negative findings, the committee may request that the applicant submit additional information relating to the negative finding, such as a written explanation, court documents and/or police reports. The committee will review all information available to it and determine whether the student should be permitted to participate in clinical rotations or be dismissed from the program.

B. **Current Students**
   1. For students who did not have a background check review at the time of their admission into the educational program, students must complete the background check review prior to commencement of an assignment at a health care facility as required.
   2. Background check reports will be submitted to the Background Check Review Committee for its review. If the report does not contain any negative findings as determined by the committee, the student will be allowed to participate in clinical rotations. If the report contains negative findings, the Background Check Review Committee may request that the student submit additional information relating to the negative finding, such as a written explanation, court documents and police reports. The Background Check Review Committee will review all information available to it and determine whether the student should be permitted to participate in clinical rotations or be dismissed from the program.

C. **Committee Review Standards**
   In reviewing the background check reports and any information submitted, 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 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 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 university counsel, university police, or other appropriate advisors.

VI. **Confidentiality and Recordkeeping**

A. 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 Rights and Privacy Act (FERPA).

B. **Students**: Background check reports and other submitted information of students will be maintained in the Office of Student Affairs in accordance with the university’s record retention policy for student records.

C. **Applicants Denied Matriculation**: Background check reports and other submitted information of applicants denied matriculation into the program will be maintained in accordance with the university’s record retention policy.

VII. **Other Provisions**

A. The UTHSCSA Medical School shall inform students who have negative findings in their background check report and are nonetheless permitted to enroll that the
Medical School’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.

B. A 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 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.

C. Falsification of information, including omission of relevant information, may result in denial of admission or dismissal from the educational program.

D. Criminal activity that occurs while a student is in attendance at the university may result in disciplinary action, including dismissal, and will be addressed through the university’s academic or disciplinary policies.

Policy for Sharing Student Background Checks

1. Authorization to share information: Student background check reports results maintained by educational institutions are records subject to the Family Educational Rights and Privacy Act (FERPA). FERPA prohibits the release of educational records without a student’s written authorization unless there is a specific FERPA exception authorizing a release without a student’s written authorization. Given that an affiliated health-care facility is offering educational services that would otherwise be provided by the educational institution, FERPA can be reasonably interpreted to permit institutions 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 (i.e. catalog) that background check reports may be provided to affiliated health-care facilities that the student will be attending as part of their required course of study.
   b) A general release will be obtained from students at the time of the background check that authorizes the release of reports or results to any affiliated clinical facility to which the student may be assigned. (Attachment A).
   c) Information will be released to the affiliated healthcare facility upon its request.

2. Requests for Information: Request for background check reports must be submitted in writing by the affiliated health-care facility and state the reason why the information is needed. All requests will be handled by the Student Affairs Office. 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 third-parties 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. Transmission via facsimile is not recommended since often times the receiving fax machine is a public area of an office.

4. Confidentiality of Information: In releasing educational records to other entities, FERPA requires that the third-party maintain the confidentiality of the educational records while the records are in their possession. The affiliated health-care 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 facility;
   c) the information may not be redisclosed 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 entity; and
   e) improper disclosure of personally identifiable information contained within the report may result in the university being prohibited from providing the facility access to this information for at least five years. (Attachment B).

5. Affiliation or Program Agreements: Affiliation agreements may include a reference of continuing students’ criminal background checks. If criminal background check information is shared with a health-care facility, the clinical facility is subject to the requirements of FERPA as to any documents received by the clinical facility from the UTHSCSA Medical School related to one of its students.

Absence, Dismissal, and Readmission

Absences of short duration may be granted by the Associate Dean for Student Affairs in the case of illness or personal emergency with the understanding that the student arrange with the faculty to make up all work which is missed. Absence for any cause shall, however, be reported by the student, within one week of the student’s return, to the
Associate Dean for Student Affairs who will determine if the absence was “excused.”

If requested in writing by the student, a leave of absence for an extended period of time may be granted by the Dean if such absence is considered to be in the best interests of the student. To reach this decision, the Dean will often rely not only on the student’s expressed wishes, but also on the opinion of her or his faculty advisor, faculty promotions committees, or other individuals familiar with the circumstances of the case. Generally, an extended leave of absence will not be granted to any student prior to the completion of at least one year of medical school, and while the exact length of the leave of absence will vary in each case, it shall, under no circumstances, exceed one year.

Students who fail to register and pay tuition and fees within the specified dates will be considered to have terminated their connection with the Medical School unless permission to register and pay tuition at a later date has been expressly granted by the Registrar.

Students who have ceased to be enrolled in the Medical School for any reason (withdrawal, dismissal, failure to register, failure to return from leave of absence at the specified time, or leaving school without authorization) and who wish to be considered for readmission either as freshmen or with advanced standing must apply to the Dean of the Medical School. Only students returning on schedule from authorized leaves of absence will be re-enrolled without having to be readmitted.

**Attendance Policy**

Attendance at each class session is not mandatory for all courses in the medical curriculum. The option lies with the course director. If the course director establishes a policy, that policy must be explained during the first meeting of the class. Attendance is mandatory for examinations.

Students who are absent from a class requiring attendance or who miss an examination should attempt to notify the course director in advance of her/his absence if possible. Absences must be explained to the Associate Dean for Student Affairs who, by memorandum to the course director, indicates whether an absence is excused.

Junior and senior students in clinical training are required to notify the clerkship director and the office of the Associate Dean for Student Affairs when they must be absent.

**Leave of Absence**

A leave of absence may be granted by the Dean or his designee if such absence is considered to be in the best interests of the student. The Dean's designee to monitor this activity area is the Associate Dean for Student Affairs. Requests for leaves of absence must be made in writing by the student to the Associate Dean for Student Affairs.

The Dean relies not only on the student's expressed wishes, but also on the opinion of the student's faculty advisor, the student promotions committee, or other individuals familiar with the circumstances of the case. Generally, an extended leave of absence will not be granted to any student prior to her/his completion of the first year of medical school. While the exact length of the leave of absence will vary from case to case, it shall, under normal circumstances, not exceed one year.

**Grades, Promotion, and Graduation**

The Medical School faculty is responsible for determining a student's fitness to be a doctor of medicine. Committees on promotion for the preclinical and clinical years of the curriculum assess the achievements and progress of each student and make recommendations for promotion, graduation, academic warning, probation, dismissal, or implementation of special academic programs. These recommendations are submitted to the Dean.

The academic standards for successful completion of each course are determined by the department or task force under which the course is administered.

**Grades**

Grading of courses will be based on an A, B, C, F system. Grades of A, B, and C will be considered passing. A grade of A is given for an outstanding performance; B for a very good performance; and C for a satisfactory performance. A grade of F indicates a failing performance. The grade of Incomplete (I) is reserved for those circumstances in which academic work is not attempted or completed due to illness, family emergency, or other non-academic extenuating circumstance. A grade of Incomplete (I) is not acceptable as a temporizing measure in situations of substandard academic performance.

For purposes of Class Rank, each letter grade will also be assigned a point value as follows:

- A = 4 points
- B = 3 points
- C = 2 points
- F = 0 points

No grade of D will be issued.

In those circumstances in which a student will be allowed remediation (as described below), only the pre-remediation Grade Point Average will be used for purposes of class rank.

**Promotion**

The standard for receiving either a passing or a failing grade for work done in any course is the prerogative of the Course Director, operating under the auspices of the Department Chairperson, or in the case of interdisciplinary courses, the Task Force Chairperson. Each Course Director will make her/his assessment of student performance independent of considerations of the student’s performance in other courses.
Students must satisfactorily complete all courses in each academic year in order to be promoted to the next year of the curriculum. The Clinical Promotions Committee will monitor the performance of those students in the third and fourth years of the Medical School curriculum. The Pre-Clinical Promotions Committee will monitor the performance of students in the first and second years of the curriculum.

Throughout the academic year promotions committees will review grade deficiencies as they are reported. This evaluation will be characterized by a review of a student’s performance in the course in which a deficiency was incurred, both from a grade-received perspective and from a review of written assessments of the student’s learning activities throughout the duration of the course. Also, brief written reports from directors of other courses in which the student was (or is) involved may be requested for review by committee members during their assessment of student performance.

Deficiencies
Promotion committees will consider a variety of approaches to deficiency removal. These approaches may include Remediation, Repetition, and/or Dismissal.

Remediation is an academic activity that occurs at the end of an academic year, but before the beginning of the next academic year, for courses in which a deficiency has been received. In those instances where remediation is approved, the nature of the remediation activity will be determined by the committee, taking into consideration recommendations of course directors, an assessment of the student’s overall academic performance, the student’s written request, and other factors as deemed appropriate by the respective committee. Students who are successful in remediation activities are able to continue with their class into the next curricular year. The highest grade that can be achieved through remediation is a C. Also, students who are remediating deficiencies may not receive concurrent credit for any other curricular activity.

Students who are not successful in their attempt to remediate a deficiency will be required to repeat the courses in which deficiencies occurred during the next academic year. The promotion committee may also require repetition of other courses that have already been passed.

Repetition refers to a student repeating all or part of a curricular year in which one has incurred deficiencies. The promotion committees, following their review of a student’s academic status, will determine the most appropriate approach to facilitate a student’s acquisition of necessary knowledge. And while a student will repeat courses in which failing grades have been incurred, a promotion committee may require that a student repeat courses that have already been passed.

Dismissal will be warranted in some instances.

Procedure
Students who have incurred one or two failing grades may request that the promotion committee grant them an opportunity to remediate grade deficiencies. This request must be in writing and it should delineate those factors, both academic and personnel that, in the student’s view, would justify such action by a promotion committee. The respective promotion committee may grant such a request if, from their review, such consideration is appropriate to facilitate student learning and progress. A promotion committee may also recommend either course repetition or dismissal.

A student who has incurred three (3) academic deficiencies may request, in writing, that the promotion committee grants that student an opportunity to repeat all or part of an academic year. Those students with three (3) deficiencies who are not granted the privilege of repetition will be dismissed from the Medical School.

Students who incur four (4) or more academic deficiencies during any one academic year will be dismissed from the Medical School.

The criteria as stated apply to each year of the Medical School curriculum. In addition, no more than two (2) years may be taken to complete any one year of the curriculum. No more than six (6) years may be taken to complete the medical curriculum. This latter condition does not include either periods of formal Leaves of Absence or those times when an individual may be placed on Independent Study status for purposes of preparation for the Step I examination of the United States Medical Licensing Examination (USMLE).

United States Medical Licensing Examination (USMLE)
Medical students must pass the Step I examination of the United States Medical Licensing Examination (USMLE) in order to be promoted into the Senior year. All students must have taken the Step I examination in order to begin the clinical clerkships of the Junior year. Those who are unsuccessful will be allowed to complete the Junior Clerkships. Those students will not be allowed, however, to begin either Senior Electives or Senior Selectives until they have again sat for that examination. Three (3) failures of the Step I examination of USMLE will result in dismissal from the Medical School. Medical students must take the Step II CK and Step II CS examinations of the United States Medical Licensing Examination (USMLE), both clinical knowledge and clinical skills, in order to qualify for graduation from the Medical School. The Step III examination will be taken following medical school graduation at a time determined by a state Board of Medical Examiners.

Academic Probation
Students who are not promoted in the routine manner from one year to the next will be considered to be on academic probation and will remain on probation until they meet the requirements for promotion.
Academic Dismissal
Dismissal from the Medical School for academic reasons will be considered for:

(1) Students who are unable to meet the standards for promotion to a given academic year or the standards for eligibility for graduation after one additional year during which courses were repeated in an effort to meet those standards;

(2) Students who would require repetition of courses or rotations after they have previously used a total of two additional years in order to meet the standards for promotion in previous academic years;

(3) Students who receive a grade of F in a course or rotation being repeated;

(4) Students who are unable to achieve a passing score on Step I of the USMLE examination within three attempts.

Dismissal for academic reasons will be subject to review by the appropriate Promotions Committee. The recommendations of the Promotions Committees are to the Dean. The students may appeal the recommendations of the Promotions Committee and the decision of the Dean to the Faculty Council. The decision of the Faculty Council is final with regard to academic matters. A further appeal may be made by the student to the President of UTHSCSA but only on issues of procedural irregularity.

Graduation
The degree of Doctor of Medicine is awarded by the Board of Regents upon the student’s successful completion of the prescribed curriculum, recommendation of the Faculty of Medicine to the Dean, and certification by the Dean 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 medical curriculum, and

(4) comply with all necessary legal and financial requirements.

Degrees will be conferred once a year on Commencement Day in the Spring. Students who complete 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.

Guidelines for Professional Conduct
Candidates for the Doctor of Medicine degree are expected to conduct themselves in a professional manner in interaction with patients, and also with peers, faculty, and staff of the HSC and the community in general. Students are subject to the “Procedures and Regulations Governing Student Conduct and Discipline” of the HSC. Throughout the medical curriculum, medical students are governed by the Code of Professional Conduct of this Medical School.

Administration of the Code of Professional Conduct for Students
Section I: Introduction
Medical students are expected to maintain the highest standards of professional and ethical conduct at the Medical School of UTHSCSA. (See the UTHSCSA Student Guide for the Code of Professional Conduct for Students.)

Section II: Grading
Students will receive an evaluation for professional conduct in each course which will be incorporated into their overall grade. Each course or clerkship director will establish the specific method of evaluation based on the Code of Professional Conduct.

Each course or clerkship director may develop additional written expectations of professional conduct specific to her or his discipline. These expectations are to be distributed to students at the beginning of the course. The Associate Dean for Student Affairs will be furnished copies of departmental expectations on a yearly basis. These Departmental expectations may, on request, be made available to other Departments.

Section III: Procedures
When a potential violation of the Code of Professional Conduct is reported, the course or clerkship director will: 1) require appropriate and timely documentation, 2) determine whether there is a basis for the complaint, and 3) inform the student of the allegation before any action is taken. If the unprofessional conduct is of a minor nature, the course or clerkship director may elect to counsel the student as the first intervention. If the conduct is of a serious nature, the course or clerkship director shall counsel the student, shall document the infraction, and may assign a “failing” grade for the course.

In those instances in which a failing grade is assigned based primarily on Professionalism issues, such failure will indicate a pattern of unprofessional behavior at the student’s state of development.

When a failing grade is assigned, the course or clerkship director must provide written documentation to the Associate Dean for Student Affairs concerning the nature of the infraction. The Associate Dean will then present the documentation to the appropriate Promotions Committee for review.

In those instances in which the course or clerkship director would wish further review prior to the imposition of a penalty, the Promotions Committee will provide that review function.

When a student observes a breach of the professional code, the principles of professional conduct compel that prompt notification be rendered to the applicable course or clerkship
directory or the Associate Dean for Student Affairs.

The Promotions Committee will recommend that the grade be sustained or modified based on the review. The Promotions Committee may recommend a penalty as described in Section IV. This recommendation is subject to the usual dismissal, appeal, and review processes as stated in the “Grade, Promotions, and Graduation” section of this Catalog (Medical School section).

Section IV: Penalties
The Promotions Committee may recommend the imposition of one or more of the following penalties for violation of the Code of Professional Conduct. With some exceptions, these penalties parallel those outlined in this Catalog under Section IV, Subsection 4-100 of the “Procedures and Regulations Governing Student Conduct and Discipline” of the HSC.

- Warning
- Probation
- Suspension of rights and privileges deriving in whole or in part from the Medical School
- Suspension of eligibility for any student office or honor
- Cancellation of credit for scholastic work done
- Reduction of the grade assigned in a course
- Failing grade in the course
- Suspension from the Medical School
- Dismissal
- Formal letter of reprimand in academic file

Section V: Nature of Penalties
The nature of penalties for unprofessional conduct are in accordance with Section IV, Subsection 4-200, of the “Procedures and Regulations Governing Student Conduct and Discipline” as outlined in this Catalog.

1. Probation for unprofessional conduct is for a definite period but no longer than one calendar year and indicates that further violations may result in suspension or dismissal.
2. Cancellation of credit for scholastic work done and reduction of the grade assigned in a course are imposed only for courses in which the student was found to exhibit unprofessional conduct.
3. Suspension from the Medical School means that a suspended student may not receive credit at the Medical School for work done by correspondence or in residence at either this or any other education institution during the period of suspension except as allowed by the hearing officer.
4. Dismissal from the Medical School means permanent severance from the Medical School.

Required Attire
During the first two years of medical school, students spend most of their time in lectures, laboratories, or other activities which do not involve contact with patients. At such times, students are expected to dress comfortably, but in such a way that does not detract from attentiveness and learning. When patient contact is part of the curriculum, either through direct contact or with patients being brought to a lecture room, students are expected to make a professional appearance and to wear the white clinic jacket with school patch and the required student I.D. Course directors should be consulted about proper attire in specific circumstances.

In the clinical years (junior and senior), students are expected to dress as health care professionals and to wear both the white jacket with school patch and the required student I.D. Again, clerkship directors or supervisors of electives/selectives should be consulted if there is a question about appropriate attire.

Curricular Design
The four-year medical curriculum is designed to provide a core of scientific knowledge and clinical skills that should enable successful students to progress to the necessary postgraduate training which ultimately enables a physician to care for patients. In addition to specific knowledge, the school offers an environment in which students can develop a professional and ethical attitude, and a sense of responsibility for patients that characterize the true physician. Each course, including electives and selectives, has been deemed essential in providing the training and experience that every physician must have.

First Year
The curriculum of the first year of medical school concentrates on the normal function and structure of the human body. Courses are organized into organ system modules so that material is coordinated and integrated. Application of material to the practice of medicine is illustrated by a series of clinical cases. Students also must learn the basics of patient communication, physical examination skills, and ethical principles of becoming a physician. The following is a list of the required courses:

- Biochemistry
- Gross Anatomy & Embryology
- Microbiology
- Microscopic Anatomy
- Neuroscience
- On Becoming a Doctor—Foundations
- Physiology

Second Year
The second year builds on knowledge gained in the first year. Disease processes are taught in organ system modules with an integration of clinical sciences, pathology, pharmacology, and clinical skills. Listed below are the required courses:

- Advanced Clinical Examination Skills
Introduction to the Clinical Sciences
Pathology
Pharmacology
Behavioral Science
Psychopathology

Third Year
The third year begins with a preclinical course followed by clerkships in six specialties.
A total of 24 third-year medical students can choose to complete their clinical training (third and fourth years) within the Regional Academic Health Center facilities in Harlingen, Texas (see “Teaching Facilities”). Assignments to the Regional Academic Health Center will be based on student preference.
- Clinical Foundations
- Family Practice Clerkship
- Medicine Clerkship
- Obstetrics & Gynecology Clerkship
- Pediatrics Clerkship
- Psychiatry Clerkship
- Surgery Clerkship

Fourth Year
The fourth year is composed of four-week periods (rotations) which are devoted to required selectives and electives, and a five-week period of required didactic courses. Remaining time may be used for optional travel/vacation periods.
- Electives - 18 weeks
- Required Didactic Period
  - Mandatory Didactic Courses:
    - Advanced Cardiac Life Support
    - Clinical Pathology
    - Medical Jurisprudence
    - On Becoming a Doctor
  - Elective Didactic Courses (students must choose three)
- Required Selectives - 8 weeks
- Vacation/Travel Periods - 10 weeks

Qualifying Examinations
Students may be exempted from participation in one or more preclinical curricular subjects if they are able to demonstrate proficiency on pre-course qualifying examinations. These examinations are offered at the discretion of the departmental chairmen and are given soon before the beginning of each course.

Course Numbering System
The four-letter prefix denotes the department presenting the course; the INTD prefix is used for interdisciplinary courses. The first digit of the number indicates the academic level at which the course is usually taken; 1=freshman; 2=sophomore; 3=junior; 4=senior. Other digits indicate the semester credit hour values and identify the course.

Course Descriptions

First Year
BIOC 1005 Biochemistry
8.5 Semester Credit Hours
Department of Biochemistry
The fundamental aspects of biochemistry are presented as they apply to medicine. The topics considered include pH and dissociation, protein structure, the properties of enzymes, biological oxidation and bioenergetics, the expression of genetic information and the mechanism of protein synthesis, the chemistry and metabolism of carbohydrates, lipids and nitrogen containing compounds. Emphasis is given to biochemical mechanisms relevant to medicine.

CSBL 1005 Microscopic Anatomy
4.5 Semester Credit Hours
Department of Cellular & Structural Biology
Current concepts in cell biology and human histology are covered by means of a series of lectures and laboratory sessions. Basic information on the structure and function of cells and tissues is presented in the lectures; this is followed by staff-supervised laboratory sessions emphasizing the recognition of cells and the fundamental tissues. Each student is provided with a box of microscopic slides of human tissues. The laboratory sessions are accompanied by microscopic slide demonstrations and/or television tapes of tissues under study. Supplemental study material, such as films, television tapes, and transparent photomicrographs are available upon request through the Office of Educational Resources and the Teaching and Learning Center. The general purpose of this course is to acquaint the student with basic cytology and histology of normal human tissues, thereby offering a firm foundation of knowledge for the understanding of normal and disease processes.**/*

CSBL 1010 Gross Anatomy and Embryology
7.5 Semester Credit Hours
Department of Cellular & Structural Biology
Lectures, conferences, and laboratory work cover normal human developmental and gross anatomy. Lectures on the development of the systems are correlated with the presentation and dissection of the gross structure of the adult. Groups of four students dissect a cadaver under the supervision of the departmental staff. Prosections, demonstration specimens, X-rays, films, and other learning aids supplement the laboratory work. Applied anatomy and malformations are discussed by clinical specialists. **Human materials fee: $300.

INTD 1005 On Becoming a Doctor—Foundations
7.5 Semester Credit Hours
Interdisciplinary
This course encompasses three primary aspects of learning to care for patients — health care ethics, patient communication, and physical examination skills. This year-long course will include several pedagogical styles including lecture, small group activities, case-based learning, writing exercises, oral presentations, community activity, and standardized patient encounters. Students will have the opportunity to participate in the three major sections of the course throughout the year. The section on medical ethics will introduce foundational knowledge and skills in responsible professional behavior enabling students to identify, reflect upon and resolve competently the ethical issues they will confront during their professional training, scientific research, and clinical practice. In addition, students will be introduced

* $48 microscope fee for the Freshman year includes these courses.
** $32 laboratory fee for the Freshman year includes these courses.
to the rudimentary knowledge and skills in ethical theory and professional ethics. Human behavior and communication skills will provide an overview of the psychological, biological, social, and cultural aspects of human behavior as it relates to both patients and physicians. The physical examination section will introduce students to physical diagnosis with an introduction to the art and technique of the medical history, physical examination, and medical documentation.

INTD 1041 Neuroscience
5.0 Semester Credit Hours
Interdisciplinary
Neuroscience introduces the study of the nervous system using a multidisciplinary approach. The course is presented by a Task Force with representation from basic science and clinical departments. In this way correlations between fundamental principles and their clinical application are demonstrated. The course considers the anatomy and physiology of the nervous system, introducing clinical discussions and patient demonstrations to highlight basic principles. Beginning with a consideration of fundamental cellular mechanisms, the student is introduced to successive levels of complexity of nervous functions. Basic anatomic concepts are developed in the laboratory using microscopic and gross specimens. Demonstrations and audiovisual teaching techniques are widely used. Neurophysiology and functional anatomy are emphasized in lectures and clinical presentations. The course is jointly presented by the departments of Cellular & Structural Biology, Physiology, Pharmacology, and Medicine (Division of Neuroscience) with the assistance of the Department of Surgery and the Imaging Center.**/*

MICR 1005 Microbiology
5.5 Semester Credit Hours
Department of Microbiology
The medical microbiology course is designed to provide a foundation in pathogenic microbiology and to prepare the medical student for subsequent offerings in infectious diseases, pathology, pharmacology and epidemiology. The scope of the course includes the biology of microorganism; the concepts of host-parasite interrelationships for pathogenic bacteria, viruses, fungi, and parasites; and the fundamentals of immunology. Laboratory sessions are an integral part of the course and provide the opportunity to understand the principles of diagnostic microbiology. The medical student is provided an opportunity to develop proficiency in the basic technical skills required of clinical clerks, house officers, and physicians treating patients with infectious diseases. The course is taught by full-time members of the Department of Microbiology.**/*

PHYL 1005 Physiology
7.5 Semester Credit Hours
Department of Physiology
The course in Medical Physiology is designed to introduce students to concepts dealing with the major cellular processes and organ systems of the normal person; to explore the homeostatic mechanisms that regulate and control their behavior; and to develop skills in group problem solving. The course begins with cellular physiology with emphasis on membrane transport, excitable tissues and muscle function. It then proceeds with the sequential coverage of the cardiovascular system, respiratory system, renal system, digestive system, endocrine and reproductive systems. The teaching/learning program deemphasizes lectures, thereby providing time for individual, independent self-study from a modern textbook. It is the textbook that defines the essential core material to be mastered. Time formally scheduled for classroom activities includes a two-hour class meeting each week structured specifically to assess learning and to foster interaction and discussion between students within assigned groups.**

Enrichment Electives
A series of elective courses are offered to first- and second-year students. These electives meet outside of the required course schedule, usually over the noon hour. Students receive credit on their transcript for successful completion of an enrichment elective, but no grade is given and they are not included in the official credit hour total or the calculation of the grade point average (GPA). A list of enrichment electives is available in the "Enrichment Elective Catalogue" from the Medical School.

Second Year

INTD 2006 Advanced Clinical Examination Skills (ACES)
6.0 Semester Credit Hours
Interdisciplinary
The ACES course is designed to build on the clinical skills learned in the first year and to integrate knowledge gained in the basic science courses for direct application to patient care. During the organ system modules, students will be paired with a preceptor to concentrate on examination skills of a particular organ site and will learn details and interpretation of abnormal findings. The course will cover important aspects of evidence-based medicine and students will have opportunities to use these concepts throughout the year. To prepare for the clinical clerkships, students will have the opportunity to practice skills of writing a complete history and physical, writing patient progress notes, writing prescriptions, and giving oral presentations.**

INTD 2001/2002 Introduction to the Clinical Sciences (ICS), I & II
8.0 Semester Credit Hours, ICS I
10.0 Semester Credit Hours, ICS II
Interdisciplinary
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.**/*

PATH 2005 Pathology
11.5 Semester Credit Hours
Department of Pathology
This course provides an introduction to the fundamentals of human disease (general pathology) followed by a review of the principal dis-

* $24 microscope fee for the Sophomore year includes these courses.
** $32 laboratory fee for the Sophomore year includes these courses.
cases of major organ systems (systemic pathology). Teaching methods include lectures, laboratory exercises, case conferences and reviews. The interpretation of gross and microscopic pathologic specimens is emphasized as a means of illustrating the application of principles to actual clinical diseases. The course also includes the application of clinical laboratory tests in disease diagnosis. This will be taught in an integrated fashion with ICS, ACES, and Pharmacology in the organ system modules.*

PHAR 2005 Pharmacology
6.0 Semester Credit Hours
Department of Pharmacology
This course is designed to provide the student 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, chemotherapy, neuropharmacology, toxicology, endocrine pharmacology and special topics such as GI and respiratory tract pharmacology, and prescription writing. This will be taught in an integrated fashion with ICS, ACES, and Pathology in the organ system modules.

PSYC 2001 Behavioral Science
2.5 Semester Credit Hours
Department of Psychiatry
This course provides a medically relevant overview of the psychological, biological, social, and cultural aspects of human behavior. The instruction covers human growth and development over the life cycle, as well as the biological determinants of behavior. The doctor-patient relationship is examined.

Students participate in small group experiences where they meet regularly with faculty to focus on various topics including: interview skills and its associated difficulties, sociocultural issues with a focus on South Texas, and various psychological topics with respect to the physician and the patient. Trigger tapes and focused interactive discussion are extensively utilized. Approximately two-thirds of the time is spent in the classroom covering the basic substantive and conceptual content. The other one-third of the time is devoted to the small-group experience. In addition to the Department of Psychiatry faculty, which includes psychiatrists, psychologists, and sociologists, members of the Department of Family Practice, Pediatrics, OB-Gyn, Surgery, and Internal Medicine participate in the course.

PSYC 2005 Psychopathology
3.5 Semester Credit Hours
Department of Psychiatry
This course is designed to provide fundamental knowledge about descriptive and psychodynamic aspects of mental disorders. The 46 hours of classroom presentations focus on understanding basic concepts of psychopathology, diagnosing each of the mental disorders, identifying psychopathology through use of the psychiatric interview, and recognizing emotional problems commonly seen in patients with other medical disorders. Video and film recordings are used extensively in the classroom to demonstrate the mental disorders. In each of the seven two-hour periods of small-group instruction, patients are interviewed and students have the opportunity to learn to write accurate mental status reports.

Third Year

Preclinical Didactics
The first two weeks of the Third Year are devoted to the Clinical Foundations Course.

INTD 3030 Clinical Foundations
2.0 Semester 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.

3. Prepare students for their new roles in clinical settings, where they encounter patient care responsibilities along with patient privacy and ethical issues.

Clerkships***

FAPR 3005 Family Practice Clerkship
6 weeks—7.0 Semester Credit Hours
Department of Family and Community Medicine
The family practice 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. Successful completion of all required preclinical courses is prerequisite to enrollment in any of the clinical clerkships.

MEDI 3105 Medicine Clerkship
12 weeks—14.0 Semester Credit Hours
Department of Medicine
The objectives of this clinical experience are to provide opportunities for students to develop patient evaluation skills, productive self-learning techniques, a sound pathophysiologic 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 four-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

* $24 microscope fee for the Sophomore year includes these courses.
** $32 laboratory fee for the Sophomore year includes these courses.
*** Successful completion of all required preclinical courses is prerequisite to enrollment in any of the clinical clerkships.
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.

**OBGY 3005 Obstetrics and Gynecology Clerkship**

Department of Obstetrics and Gynecology

A clerkship consisting of gynecology and obstetrics is provided for medical students who have successfully completed the course in reproductive physiology and pathophysiology. The goal of the clerkship is to provide students with opportunities to prepare to function as a house officer capable of providing preventive care and treatment or competent to identify the patient's need for direction into an appropriate care environment. Supervised direct patient experience occurs in the obstetrical wards, operating room, labor and delivery suite, emergency room, and the obstetrical, gynecologic, family planning, and cancer detection clinics. A guide identifying instructional goals and the mechanisms to reach them is provided. Twenty-five seminars provide the opportunity for integration of clinical experience and didactic learning.

**PEDI 3005 Pediatric Clerkship**

Department of Pediatrics

The pediatric clerkship is intended to introduce the student to the infant, child and adolescent as a developing and growing organism. The effects of developmental, psychosocial, and environmental factors on the child's growth and health status are emphasized. Students spend variable lengths of time on inpatient teaching services, in the newborn nursery, and in various general and subspecialty outpatient clinics. Students participate along with house staff in care of patients and are responsible for taking a history and doing a complete physical examination. After analyzing these data, the student is expected to establish a working diagnosis and to recommend appropriate laboratory studies and a course of management. Students also participate in house staff and attending rounds, grand rounds, and departmental conferences as well as student discussion groups.

The objectives of the clerkship are: (1) to provide students with an opportunity to gain skills and insight into the more unique features of history taking and physical examination performance in infants and children, (2) to provide students with an exposure to infants and children with both common minor illnesses and with serious and more unusual acute and chronic illnesses, (3) to impress students with the necessity to consider not only the infant or child patient, but the entire family constellation, its cultural background and socioeconomic status, (4) to give students the opportunity to participate in the diagnostic workup and treatment of infants and children, and (5) to encourage students to refer to appropriate textbooks and journal articles as they undertake the diagnostic workup and treatment of their assigned patients.

**PSYC 3005 Psychiatry Clerkship**

Department of Psychiatry

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 which 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.

**SURG 3005 Surgery Clerkship**

Department of Surgery

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 interspersed 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 which should be encompassed by every practicing physician.

**Fourth Year**

The fourth year of medical school is devoted to required didactics, required selectives, and electives. Didactics require 5 weeks; required selectives are 8 weeks; electives require 18 weeks. Ten weeks (optional) may be used for vacation or travel, making the senior year 41 weeks in length.

**Required Didactic Courses**

All of the courses below are included in the required didactic periods.

**Mandatory Didactic Courses**

**EMST 4100 Advanced Cardiac Life Support**

1.0 Semester Credit Hour

Department of Emergency Medical Technology

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.

**PATH 4290 Clinically Applied Laboratory Medicine (CALM)**

0.5 Semester Credit Hours

Department of Pathology

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 on medical/surgical specialties; a student is assigned to a group according to chosen specialty. Each group meets with an instructor for interactive discussion of three to four patient cases per two-hour session. On any particular day, all groups meet during the same time slot but in different rooms. Patient cases are selected to emphasize important laboratory medicine points pertinent to a particular specialty. The grading scale is Pass/Fail based upon attendance/participation.

RADI 4202 General Diagnostic Radiology
1.0–4.0 Semester Credit Hours
This course is designed as an introduction to diagnostic radiology. The primary goals of this 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 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 files.

INTD 4105 Medical Jurisprudence
0.5 Semester Credit Hour
The course will center around the Texas Medical Practice Act and applicable federal laws.

INTD 4106 On Becoming a Doctor
0.5 Semester Credit Hour
The course is the capstone of the four-year longitudinal curriculum in humanities and ethics. The goals are to reflect upon a) physician’s values, attitudes, and their intersection with cultural values and attitudes; b) the historical and moral traditions of medicine in the context of society, politics, spirituality, and the health care system; and c) the personal identity of a doctor.

Fourth Year Selectives
Students are required to take a four-week selective in medicine, a four-week selective in a surgical discipline, and a four-week selective in either family practice, obstetrics/gynecology, pediatrics, or psychiatry.

Senior Electives
Eighteen weeks of the senior year are devoted to course work chosen by the student. Electives may be chosen from those approved by the Curriculum Review Committee and published each year in the Electives Brochure. The courses offered vary according to student demand, faculty capabilities, and time availability. The catalog describing electives is available on the Medical School Web site, http://som.uthscsa.edu under “Information for Students,” “Senior Academic Year Catalog.”

Some courses are full-time rotations while others are part-time. Students must register for at least 35 hours per week of course work. Each four-week period of elective work earns 4 semester hours of academic credit.

As an illustration of the kinds of courses which may be offered, titles of electives available in 2005–2006 are listed below.

Electives

Anesthesiology
Clinical Anesthesiology
Critical Care Anesthesia
Improving Patient Outcomes
Anesthesiology Research
Obstetrical Anesthesiology
Pain Management

Biochemistry
Biochemistry Research
(See current Electives brochure for areas of research.)

Cellular and Structural Biology
Advanced Anatomy
Advanced Anatomy of the Head and Neck
Advanced Anatomy of the Pelvis and Lower Member
Advanced Anatomy of the Trunk
Advanced Neuroanatomy
Anatomy of the Newborn
History of Anatomy in Situ: the Reawakening and Development of Anatomy in 14th–18th Century Italy
Human Genetics Research
Molecular Immunological Research
Regional Anatomy
Selected Research Projects

Emergency Medicine
Introduction to Emergency Health Sciences — Ambulance

Family and Community Medicine
Community Geriatrics
Preceptorship in International Health
Environmental Medicine/Border Health
Essential Spanish for Health Care
Family Medicine Preceptorship-Internal
Family Medicine Preceptorship-External
MS4 Tutor Elective
Office Procedures Elective
Preceptorship with Board-Certified Family Physicians
Research in Family Medicine
Medical Informatics
Spanish-Speaking Only Patient Clinical Rotation
Sub-Internship in Family Medicine In-Patient Services—San Antonio or RAHC
Women’s Health Seminar

Interdisciplinary
Humanism in Medicine Fellowship
Improving Patient Outcomes

Medicine
AHEC Clinic Experience
AHEC Medicine Preceptorship
Allergy-Immunology Clinic and Consultation Service
Cardiology Consultation—WHMC
Cardiology Care Unit—Subinternship—BAMC
Cardiovascular Research
Clinical Cardiology
Clinical Chest Disease
Clinical Dermatology
Clinical Gastroenterology
Clinical Hematology
Clinical Infectious Diseases
Clinical Nephrology
Clinical Nutrition
Clinical Pharmacology
Clinical Preceptorship in General Internal Medicine
Clinical Rheumatology
Combined Consultation Service in Geriatrics & Palliative Medicine
Consultation Neurology
Coronary Intensive Care
EKG Elective-BAMC
EKG/Heart Sound Rotation
Emergency Medicine Rotation-BAMC
Gastroenterology-WHMC
Gastroenterology Service-BAMC
Gastrointestinal Research
General Internal Medicine
Geriatric Medicine
Hematology Service
Hematology/Oncology Consultation-WHMC
Infectious Diseases-WHMC
Infectious Disease Service-BAMC
International Medicine
Medical Externship—Medical ICU-VA Hospital
Medical Ethics for the Clinician
Medical Externship—Medical ICU-University Hospital
Medicine Externship in HIV/AIDS
Medicine ICU Sub-Internship-WHMC
Medicine Sub-Internship-RAHC
Molecular Genetics Research in Breast Cancer
Nephrology Service-BAMC
Nephrology Service-WHMC
Neurology Consultation Service
Neurology Service-BAMC
Oncology
Oncology Service-BAMC
Preceptorship in Indian Health Care
Pulmonary Disease-WHMC
Pulmonary Medicine-BAMC
Renal Research
Research in Aging
Research in Calcium and Bone Metabolism
Research in Clinical Epidemiology
Research in General Internal Medicine
Research in Infectious Diseases
Research in Hematology
Research Neurology
Rheumatology-WHMC
Senior Rotation in Antibiotic Management
Women's Health

Microbiology
Basic Aspects of Immunology and Microbial Infections
Advanced Medical Microbiology

Obstetrics and Gynecology
Advanced Sonography
Clinical Obstetrics & Gynecology-RAHC
Endo-Infertility
Obstetrical Externship
Obstetrics and Gynecology Research
Women's Reproductive Health and Gynecological Surgery

Ophthalmology
Clinical Ophthalmology
Research in Clinical Ophthalmology
Ophthalmic Research

Orthopaedics
Emergency Orthopaedics at University Hospital
Orthopaedic Oncology
Pediatric Orthopaedics—SRCH/University Hospital
Preceptorship in Orthopaedics
Primary Care in Orthopaedics
Research in Orthopaedics
Adult Reconstruction in Orthopaedic Surgery
Hand Surgery
Selective in Orthopaedics
Sports Medicine
Trauma, Fracture, and Clinical Care

Otolaryngology
Head and Neck Surgery
Otorhinolaryngology Research

Pathology
Anatomic Pathology
Blood Banking
Anatomic Pathology and Fine Needle Aspiration
Hematology-Univ. Hospital
Hematology/Blood Banking
Research in Pathology

Pediatrics
Pediatric Cardiology
Pediatric Hematology-Oncology Courses
Pediatric Infectious Disease
Pediatric Endocrinology
Pediatric Pulmonology
Neonatal Research
Neonatal Intensive Care Externship
Pediatric Genetics and Birth Defects
Pediatric Nephropathy
Developmental Disabilities
Genetics and Birth Defects
Primary Ambulatory Care Preceptorship
AHEC Clinic Experience
AHEC Preceptorship

Pharmacology
Clinical Pharmacology

Physiology
Ion Channel Research in Excitable and Non-excitatory Cells
Renal Physiology Update
Research in Cardiovascular Physiology
Research in the Endocrinology of Aging

Psychiatry
Child and Adolescent Psychiatry
Clinical Biological Psychiatric Research
Clinical Psychiatry
Consultation-Liaison Selective
Neuropsychiatry
Psychotic Disorders
Psychiatry Emergency Service (Pes)
**Radiation Oncology**
- Radiation Oncology

**Radiology**
- Diagnostic Radiology Clerkship-WHMC
- Diagnostic Radiology Clerkship-BAMC
- General Diagnostic Radiology
- Pediatric Radiology

**Rehabilitation Medicine**
- Clinical Rehabilitation Medicine
- Combination of four rehabilitations
- Hyperbaric Medicine & Wound Care
- Introduction to Inpatient Rehabilitation
- Introduction to Pediatric Rehabilitation
- Introduction to Spinal Cord Injury

**Surgery**
- Affiliated Surgery
- Cardiothoracic Surgery Selective
- Cardiothoracic Surgery Selective—Harlingen
- Clinical Anesthesiology
- Clinical Anesthesiology Selective—Harlingen
- Clinical Ophthalmology
- Congenital Cardiology and Cardiac Surgery
- Critical Care Anesthesia
- Emergency Medicine/Emergency Clinical Surgery Selective
- Emergency Orthopaedics
- General Surgery Selective—BAMC/Burn Unit
- General Surgery Selective —University Hospital and VA Hospital
- General Surgery Selective—Wilford Hall Medical Center
- Hand Surgery
- Neurosurgery Selective
- Obstetrical Anesthesiology/Analgesia Management
- Oral Maxillofacial Surgery Selective
- Orthopaedics Elective
- Orthopaedics Sports Medicine
- Orthopaedics Oncology
- Otolaryngology–Head and Neck Surgery
- Pain Management
- Pediatric Surgery (required)
- Pediatric Surgery Selective
- Plastic Surgery
- Plastic Surgery Selective
- Primary Care in Orthopaedics
- Rural Surgery
- Senior Honors Program in Surgery
- Senior Surgical Subinternship
- Supervised Basic Science Research
- Supervised Clinical Science Research
- Surgical Critical Care Selective
- Urology
- Urology Selective
### Fall 2005

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<td>Orientation</td>
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<td>Thursday, June 30, 2005</td>
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<tr>
<td>Monday, July 04, 2005</td>
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<tr>
<td>Monday, September 05, 2005</td>
<td>*University Holiday (Offices Closed)</td>
<td></td>
</tr>
<tr>
<td>Thursday, November 24, 2005</td>
<td>*University Holiday (Offices Closed)</td>
<td></td>
</tr>
<tr>
<td>Friday, November 25, 2005</td>
<td>*University Holiday (Offices Closed)</td>
<td></td>
</tr>
<tr>
<td>Friday, December 16, 2005</td>
<td>Term Concludes</td>
<td>All</td>
</tr>
<tr>
<td>Friday, December 23, 2005</td>
<td>Graduation (No Ceremony)</td>
<td>All</td>
</tr>
</tbody>
</table>

*University Holidays Tentative

### Spring 2006

<table>
<thead>
<tr>
<th>Date</th>
<th>Activity</th>
<th>Student Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monday, January 09, 2006</td>
<td>1st Class Day-Classes Resume</td>
<td>All</td>
</tr>
<tr>
<td>Monday, January 16, 2006</td>
<td>*University Holiday (Offices Closed)</td>
<td>All</td>
</tr>
<tr>
<td>Wednesday, January 25, 2006</td>
<td>Census Day</td>
<td>All</td>
</tr>
<tr>
<td>Monday, February 20, 2006</td>
<td>*University Holiday (Offices Closed)</td>
<td></td>
</tr>
<tr>
<td>Monday, March 13, 2006</td>
<td>Spring Break Begins</td>
<td>MS1 &amp; MS2</td>
</tr>
<tr>
<td>Friday, March 17, 2006</td>
<td>Spring Break Ends</td>
<td>MS1 &amp; MS2</td>
</tr>
<tr>
<td>Friday, May 05, 2006</td>
<td>Term Concludes</td>
<td>MS2 &amp; MS4</td>
</tr>
<tr>
<td>Friday, May 12, 2006</td>
<td>Term Concludes</td>
<td>MS1</td>
</tr>
<tr>
<td>Thursday, May 18, 2006</td>
<td>Graduation Rehearsal</td>
<td>11:00 AM</td>
</tr>
<tr>
<td>Saturday, May 20, 2006</td>
<td>Graduation-Laurie Auditorium</td>
<td>2:00 PM</td>
</tr>
<tr>
<td>Monday, May 29, 2006</td>
<td>*University Holiday (Offices Closed)</td>
<td></td>
</tr>
<tr>
<td>Friday, June 23, 2006</td>
<td>Term Concludes</td>
<td>MS3</td>
</tr>
<tr>
<td>Tuesday, July 04, 2006</td>
<td>*University Holiday (Offices Closed)</td>
<td></td>
</tr>
</tbody>
</table>

*University Holidays Tentative

Note: The 2006–2007 Academic Calendar will be made available on the Student Services Web in the Fall.
## Medical School
### 2005–2006 MS Period Dates

#### MS 3 Dates

<table>
<thead>
<tr>
<th>Begin</th>
<th>End</th>
<th>Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wednesday, June 15, 2005</td>
<td>Friday, July 01, 2005</td>
<td>Didactics</td>
</tr>
<tr>
<td>Monday, July 04, 2005</td>
<td>Friday, August 12, 2005</td>
<td>Clerkship 1</td>
</tr>
<tr>
<td>Monday, August 15, 2005</td>
<td>Friday, September 23, 2005</td>
<td>Clerkship 2</td>
</tr>
<tr>
<td>Monday, September 26, 2005</td>
<td>Friday, November 04, 2005</td>
<td>Clerkship 3</td>
</tr>
<tr>
<td>Monday, November 07, 2005</td>
<td>Friday, December 16, 2005</td>
<td>Clerkship 4</td>
</tr>
<tr>
<td>Monday, January 09, 2006</td>
<td>Friday, February 17, 2006</td>
<td>Clerkship 5</td>
</tr>
<tr>
<td>Monday, February 20, 2006</td>
<td>Friday, March 31, 2006</td>
<td>Clerkship 6</td>
</tr>
<tr>
<td>Monday, April 03, 2006</td>
<td>Friday, May 12, 2006</td>
<td>Clerkship 7</td>
</tr>
<tr>
<td>Monday, May 15, 2006</td>
<td>Friday, June 23, 2006</td>
<td>Clerkship 8</td>
</tr>
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</table>

#### MS 4 Dates

<table>
<thead>
<tr>
<th>Begin</th>
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<th>Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tuesday, June 28, 2005</td>
<td>Friday, July 29, 2005</td>
<td>Orientation</td>
</tr>
<tr>
<td>Monday, July 04, 2005</td>
<td>Friday, August 26, 2005</td>
<td>Period 1</td>
</tr>
<tr>
<td>Monday, August 01, 2005</td>
<td>Friday, September 23, 2005</td>
<td>Period 2</td>
</tr>
<tr>
<td>Monday, August 29, 2005</td>
<td>Friday, October 21, 2005</td>
<td>Period 3</td>
</tr>
<tr>
<td>Monday, September 26, 2005</td>
<td>Friday, November 18, 2005</td>
<td>Period 5</td>
</tr>
<tr>
<td>Monday, November 21, 2005</td>
<td>Friday, December 16, 2005</td>
<td>Period 6</td>
</tr>
<tr>
<td>Monday, January 09, 2006</td>
<td>Friday, February 03, 2006</td>
<td>Period 7</td>
</tr>
<tr>
<td>Monday, February 06, 2006</td>
<td>Friday, March 03, 2006</td>
<td>Period 8</td>
</tr>
<tr>
<td>Monday, March 06, 2006</td>
<td>Friday, April 07, 2006</td>
<td>Didactics</td>
</tr>
<tr>
<td>Monday, April 10, 2006</td>
<td>Friday, May 05, 2006</td>
<td>Period 9</td>
</tr>
</tbody>
</table>
The School of Allied Health Sciences is a dynamic center of learning, service and research for those interested in being a part of the challenging health care industry. The vision of the faculty members in the School of Allied Health Sciences states that “we will improve the health of humanity, today and tomorrow, through excellence, visionary leadership, and teamwork in education, research, service, and patient care.”

The words “allied health” stand for the largest group of health care providers in the United States. According to the American Medical Association, there are 52 verifiable allied health disciplines. This diversity is inclusive and creates a large, powerful group of health care professionals. Collectively, allied health professionals are over 3-million people strong and constitute more than 60 percent of the entire health care workforce. In Texas, there are over 270,000 allied health professionals. In 2000–2001, there were 12,841 allied health students enrolled and 6,913 graduates from 363 different programs representing 42 different professions within the state.

The diversity of professions with “allied health” makes the term difficult to define. For the School of Allied Health Sciences, we describe allied health professionals as those who are involved in the identification, evaluation, treatment, and prevention of diseases, injuries, and conditions, while educating the public on prevention, wellness, and self-management for healthful lifestyles. Here at the School of Allied Health Sciences we provide educational programs in:

- Clinical Laboratory Sciences
- Deaf Education and Hearing Science
- Dental Hygiene
- Dental Laboratory Technology
- Emergency Health Sciences
- Occupational Therapy
- Physical Therapy
- Physician Assistant Studies
- Respiratory Care

We continually monitor the State’s requirements for allied health professionals and adapt our programs to meet emerging needs of new allied health professionals. Feel free to contact us if you are interested in a professional program that we do not offer currently, and we can refer you to the nearest program.

Allied health education takes place in many different educational institutions, including community colleges, four-year colleges and universities, comprehensive universities, hospitals, and health science centers. Each institution has educational programs that reflect the overall mission of that learning environment. Here at UTHSCSA, we do much more than prepare health care professionals to enter their chosen field — we aim to prepare professionals who will be the leaders, educators, and scholars in their disciplines. We provide the level of education that is not always available at other colleges and universities. Our 25-year history provides a strong foundation for faculty and students to expand beyond the expected.

For further information about School of Allied Health Sciences departments and educational programs, use the following telephone numbers and Web site addresses.

School of Allied Health Sciences

Dean's Office (210) 567-8800

Allied Health Welcome Center (210) 567-8744
(210) 567-8569
Toll Free (866) 802-6288
e-mail: AHWelcome@uthscsa.edu

Clinical Laboratory Sciences (210) 567-8860
http://www.uthscsa.edu/sah/cls/cls.htm

Deaf Education and Hearing Science (210) 832-2429
http://www.uthscsa.edu/sah/dehs

Dental Hygiene (210) 567-8820
http://www.uthscsa.edu/sah/dh/

Dental Laboratory Technology (210) 567-3056
http://www.uthscsa.edu/sah/dlt

Emergency Health Sciences (210) 567-7860
http://www.uthscsa.edu/emt

Occupational Therapy (210) 567-8880
http://www.uthscsa.edu/or2

Physical Therapy (210) 567-8750
http://www.uthscsa.edu/sah/pt

Physician Assistant Studies (210) 567-8810
http://www.uthscsa.edu/sah/pastudies

Respiratory Care (210) 567-8850
http://www.uthscsa.edu/respiratorycare

Laredo Campus Extension http://www.uthscsa.edu/Laredo/laredo.html

Educational Programs

All certificate and degree programs offered through the School of Allied Health Sciences combine Texas Core Curriculum and prerequisite* courses in biological, physical, and social/behavioral sciences taken at regionally accredited colleges or universities. Specific prerequisites vary by program and may be found in each department's section of this Catalog.

* Prerequisite courses for entry into Allied Health bachelors and undergraduate certificate courses are subject to change pending review.
Undergraduate Certificate Programs

Department of Emergency Health Sciences — Certificate programs in EMT-Basic and EMT-Paramedic are offered through the Department of Emergency Health Sciences. The EMT-Basic program consists of 6 semester credit hours, and the EMT-Paramedic program consists of 29 semester credit hours. Students who successfully complete the certificate programs are eligible to take state or national certification examinations.

Degree and Post-Baccalaureate Certificate Programs

Department of Clinical Laboratory Sciences — Several post-baccalaureate certificate and degree options in clinical laboratory sciences and related fields are offered. The Bachelor of Science in Clinical Laboratory Sciences (CLS) is available at UTHSCSA and through a joint degree program with The University of Texas at San Antonio (UTSA). For further information about the joint degree program, see the Clinical Laboratory Sciences section of this Catalog and the Undergraduate Catalog of UTSA.

Three tracks are available in CLS bachelor’s degree program: General, Business, and Pre-medical. The tracks differ in science, mathematics, and other prerequisites; the professional phase coursework is the same. The General and Business tracks consist of a minimum of 133.5 semester credit hours, including 70 semester credit hours of core curriculum and program prerequisites and 63.5 semester credit hours in professional phase courses. The Pre-medical track consists of a minimum of 147.5 semester credit hours, including 84 semester credit hours in core curriculum and program prerequisites and 63.5 semester credit hours in professional phase courses. Core curriculum and program prerequisites must be completed at another regionally accredited college or university.

The CLS post-baccalaureate certificate program is open to students who already hold a bachelor’s degree from a regionally accredited college or university. Science requirements for the certificate not completed as part of the bachelor’s degree may be completed as part of the post-baccalaureate certificate curriculum. The curriculum requires approximately 18 to 24 months to complete, and consists of 63 semester credit hours. Graduates of the CLS bachelor’s degree and post-baccalaureate certificate programs are eligible to take the national certification examinations given by the National Credentialing Agency for Medical Laboratory Personnel.

The Master of Science in Molecular Diagnostics program consists of a minimum of 129.5 semester credit hours, including 90 semester credit hours of core curriculum and program prerequisites completed at another accredited college or university, and 39.5 semester credit hours in molecular diagnostics courses completed at UTHSCSA. The UTHSCSA phase of the program consists of approximately 12 months of full-time study. A Post-Baccalaureate Certificate in Cytogenetics program is available for students who have already completed a bachelor’s degree in natural science (biology, microbiology, medical technology, etc.) or a physical science (chemistry, physics, etc.) UTHSCSA coursework is the same for both programs. The program consists of 40 semester credit hours. Graduates of the bachelor’s degree and certificate programs are eligible to take the Clinical Laboratory Specialists in Cytogenetics examination given by the National Credentialing Agency for Medical Laboratory Personnel.

The Bachelor of Science in Molecular Diagnostics program consists of a minimum of 129.5 semester credit hours, including 90 semester credit hours of core curriculum and program prerequisites completed at another accredited college or university, and 39.5 semester credit hours in molecular diagnostics courses completed at UTHSCSA. The UTHSCSA phase of the program consists of approximately 12 months of full-time study. A Post-Baccalaureate Certificate in Cytogenetics program is available for students who have already completed a bachelor’s degree in natural science (biology, microbiology, medical technology, etc.) or a physical science (chemistry, physics, etc.) UTHSCSA coursework is the same for both programs. The program consists of 40 semester credit hours. Graduates of the bachelor’s degree and certificate programs are eligible to take the Clinical Laboratory Specialists in Cytogenetics examination given by the National Credentialing Agency for Medical Laboratory Personnel.

Categorical certificate programs in a subdiscipline of clinical laboratory sciences are open to students who hold a bachelor’s degree in biology, chemistry, or another closely related field. Categorical certificates are available in microbiology, clinical chemistry, immunohematology, and hematology. Curricula for these programs may be completed in 12 to 18 months, and consist of the following:

<table>
<thead>
<tr>
<th>Prerequisites</th>
<th>CLS Coursework</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Microbiology</td>
<td>30.0</td>
<td>32.0</td>
</tr>
<tr>
<td>Clinical Chemistry</td>
<td>30.0</td>
<td>30.0</td>
</tr>
<tr>
<td>Immunohematology</td>
<td>30.0</td>
<td>28.5</td>
</tr>
<tr>
<td>Hematology</td>
<td>30.0</td>
<td>25.0</td>
</tr>
</tbody>
</table>

The Master of Science in Clinical Laboratory Sciences is a graduate degree program administered by the Graduate School of Biomedical Sciences (GSBS). The program offers tracks in forensic/analytic toxicology (minimum of 38 semester credit hours, including thesis) and immunohematology (minimum of 39 semester credit hours, including thesis). 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.

Department of Dental Hygiene — Degree requirements for the entry-level Bachelor of Science in Dental Hygiene
include approximately two years of Texas core curriculum and program prerequisites and two years of dental hygiene courses. The program consists of a minimum of 126 semester credit hours, including 61 semester credit hours of core curriculum and program prerequisites and 65 semester credit hours of dental hygiene courses. Core curriculum and program prerequisites must be completed at another regionally accredited college or university before matriculating into the entry-level bachelor's degree program.

The post-certificate bachelor's degree completion program is open to graduates of the UTHSCSA dental hygiene certificate program (previously offered), graduates of other entry-level dental hygiene programs in Texas, and U.S. Registered dental hygienists who are not graduates of the UTHSCSA certificate program. The program consists of a minimum of 124 semester credit hours, including 94 semester credit hours of Texas core curriculum, program prerequisites, and previous dental hygiene courses and 30 semester credit hours of dental hygiene courses. Core curriculum and program prerequisites must be completed at another regionally accredited college or university before matriculating into the bachelor's degree completion program.

The Master of Science in Dental Hygiene is a graduate degree program administered by the Graduate School of Biomedical Sciences (GSBS). The program consists of 36 semester credit hours, including thesis). Students in the program follow procedures and policies of the GSBS. For further information, see the Graduate School of Biomedical Sciences section of this Catalog.

Department of Dental Laboratory Technology — The Bachelor of Science degree in Dental Laboratory Sciences is designed for the individual with a background in dental laboratory technology who wishes to gain education and experience in advanced techniques, laboratory management, business and training skills, and professional communications. The program requires a minimum of 121 semester credit hours, including Texas core curriculum requirements, program prerequisites, and UTHSCSA coursework.

Department of Emergency Health Sciences — The Bachelor of Science in Emergency Health Sciences program is designed for certified paramedics who wish to extend their education in the areas of pre-hospital emergency medical technology, emergency medical care, administration, teaching, or advanced level practice. The program consists of 124 semester credit hours, including 72 semester credit hours of Texas core curriculum and emergency health sciences certificate prerequisites (EMT-Basic and EMT-Paramedic certificates) and 52 semester credit hours of advanced courses. Core curriculum courses must be completed at another regionally accredited college or university. Emergency health sciences certificate prerequisites may be completed at any accredited college or university.

Department of Occupational Therapy — The Master of Occupational Therapy (MOT) program is an entry-level professional degree program that consists of a minimum of 185 semester credit hours, including 105 semester credit hours of occupational therapy courses and 80 semester credit hours of Texas core curriculum and program prerequisite courses. Students who have already completed a bachelor's degree at a Texas public college or university may request that core curriculum requirements be waived. The program includes 20 semester credit hours (6 months) of full-time clinical fieldwork. Graduates of the MOT program are eligible to take the Occupational Therapist Registered OTR certification examination given by the National Board for Certification in Occupational Therapy, Inc.

A BS-to-MOT Advanced Transfer option is open for registered occupational therapists who hold a bachelor's degree. Students who select the option complete 36 semester credit hours on a full-time or part-time basis.

Department of Dental Laboratory Technology — The Bachelor of Science degree in Dental Laboratory Sciences is designed for the individual with a background in dental laboratory technology who wishes to gain education and experience in advanced techniques, laboratory management, business and training skills, and professional communications. The program requires a minimum of 121 semester credit hours, including Texas core curriculum requirements, program prerequisites, and UTHSCSA coursework.

Department of Physical Therapy — The Master of Physical Therapy (MPT) program is an entry-level professional degree program that consists of a minimum of 186.5 semester credit hours, including 90 semester credit hours of Texas core curriculum and program prerequisite courses and 96.5 semester credit hours of physical therapy courses. Students who have already completed a bachelor's degree at a Texas public college or university may request that core curriculum requirements be waived. The professional phase is a 30-month program that includes 24 weeks of full-time clinical experiences. Additional clinical experiences may be included on an elective basis. Graduates of the MPT program are eligible to take the National Physical Therapy Examination given by the Federation of State Boards of Physical Therapy.

Department of Physician Assistant Studies — The Master of Physician Assistant Studies degree is an entry-level professional degree program that consists of 211 semester credit hours, including 90 semester credit hours of core curriculum and program prerequisite courses and 121 semester credit hours of physician assistant courses. Students who have already completed a bachelor's degree at a Texas public college or university may request that core curriculum requirements be waived. The professional phase is a 33-month program that includes 21 months of coursework at UTHSCSA and
other academic facilities in San Antonio, and 12 months of supervised clinical practice at various settings in South Texas. Graduates of the program are eligible to take the Physician Assistant National Certifying Exam given by the National Commission on Certification of Physician Assistants.

**Department of Respiratory Care** — The Bachelor of Science in Respiratory Care consists of 147.5 semester credit hours, including 56 semester credit hours of core curriculum and program prerequisite courses and 91.5 semester credit hours of respiratory care courses. The two-year professional phase of the program at UTHSCSA includes more than 1000 hours of in-hospital clinical practice. Graduates are eligible to take the Certification Examination for Entry Level Respiratory Therapists (CRT) and the Registry Examination for Advanced Respiratory Therapists (RRT) given by the National Board for Registry Care.

**Laredo Campus Extension**

The School of Allied Health Sciences offers two of its degree programs in Laredo as part of the Laredo Campus Extension: Bachelor of Science in Respiratory Care and Master of Occupational Therapy. Most of the coursework is provided through distance learning and Web-based courses. Educational partnerships with Laredo Community College and Texas A&M International University allow students to complete core curriculum and program prerequisite courses in preparation for admission to the professional curriculum. Laredo area hospitals and health agencies provide excellent sites for clinical education.

The Respiratory Care baccalaureate degree program offered in Laredo is designed to prepare individuals to become advanced level respiratory therapists. Students who have completed program prerequisites may begin their respiratory care coursework in their junior year. An advanced standing, career-ladder option is available for individuals who have already completed an Associates Degree in Respiratory Care or who hold the certified (CRT) or registered respiratory therapist (RRT) credentials. The regular and advanced standing programs are identical to those being offered in San Antonio.

For further information about Laredo Campus Extension programs, contact Allied Health Welcome Center at (210) 567-8744 or (866) 802-6288 (toll free).

**General Policies and Regulations**

**Academic Advising**

Students in Allied Health Sciences programs are assigned a faculty advisor for the purpose of aiding the student’s progress in the program. The faculty advisor may address the student’s academic and professional issues and may meet with students on a periodic basis. It is the student’s responsibility to meet with the advisor when difficulties are encountered. Further information about the department’s policies and practices regarding faculty advisors are provided in the department’s section of this Catalog.

**Academic Integrity**

Students in the School of Allied Health Sciences are expected to be above reproach in all professional and academic activities. Policies on scholastic dishonesty will be strictly enforced; students who fail to conform to standards of academic integrity and scholastic honesty are subject to disciplinary actions. Scholastic dishonesty includes cheating on examinations or assignments, plagiarism, fabricating data or results, presenting another person’s work as one’s own without giving proper credit or citation, falsifying data or results, etc. For further information on procedures in regard to academic integrity, see “Student Conduct and Discipline” in this Catalog.

**Accreditation**

All educational programs in the School of Allied Health Sciences 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.

**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 each department’s Committee on Allied Health Studies (CAHS). Failure to meet the standards may result in the student’s being placed on probation or dismissed from the program.

Students who do not adhere to professional behavior standards may be dismissed from the certificate or degree program. General standards for professional behavior are provided under “Professional Conduct” later in this section. Other standards and policies may be set by the CAHS. In addition, professional behavior and ethics standards from professional organizations may be applied.

When the CAHS determines that a student’s violation of professional behavior standards or ethics does not merit dismissal, the student may be placed on probation. While on probation, the student is expected to exhibit specified professional behaviors in order to continue in the program. Expectations are defined in writing by the CAHS on a case-by-case basis, depending on the specific behaviors the student must correct. Should there be further violations of standards, the student may be subject to immediate review and possible dismissal from the program. Policies and procedure regarding probation, dismissal, and student appeals may be found in the sections “General Regulations and Requirements” and “Grades, Promotion, and Advancement.”

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.
Appeal Procedures

Purpose of Appeals Procedures — The purpose of academic appeals is to provide students with an objective hearing of wide range issues related to the student's professional education. The appeal procedures below provide opportunities for students to request a review of recommendations and decisions made by the department's Committee on Allied Health Studies (CAHS), submit information not previously available to the CAHS, 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 student's education program, 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 Governing Student Conduct and Discipline in the UTHSCSA Student Guide. Established school or program policies themselves cannot be appealed.

Appeal of Grades or Evaluations

The procedures are followed 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 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 faculty member, the student may appeal in writing to the Department Chair within five business days following the meeting with the instructor. The written appeal should include:
   a. name of the student
   b. nature of the occurrence
   c. date of the occurrence
   d. name of the instructor(s) involved
   e. summary of the student's meeting with the instructor, including date, time, and outcomes
   f. student's rationale for the appeal

Step 2 Meeting with the Department Chair — Within five business days after submitting the written appeal to the Department Chair, the student will be 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:
   a. investigating the facts and examining the evidence
   b. meeting with the instructor(s) and student to clarify areas of dispute
   c. mediating a mutually-acceptable resolution, if possible
   d. documenting in writing actions taken to seek resolution

The Department Chair will notify the student and faculty member in writing of his/her decision within five business days following the final meeting with concerned parties.

Step 3 Appeal to the Dean — If 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.

Appeal of Program-Related Penalties

At times, the Committee on Allied Health Studies (CAHS) may judge that it is in the best interests 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 CAHS assesses one or more penalties. It is recommended that the CAHS provide opportunity for the student to provide information related to the matter before the decision is made about penalties. If the proposed penalty is dismissal, the CAHS 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 CAHS's decision. The Department Chair will notify the student in writing of the CAHS's decision and

1 Timeframes in the appeal procedures are recommended intervals and may be modified as a result of weekends, holidays, vacation periods, and other circumstances.

2 “Dean” may refer to the Dean or another person designated by the Dean, e.g., the Associate Dean.
the rationale, and inform the student about appeal procedures. Copies of the CAHS meeting minutes and the notification to the student will be sent to the Dean. If the student does not appeal the decision, the penalty becomes effective five business days after receipt of the Department Chair’s notification.

Step 2 Appeal to the Dean — The student may appeal the CAHS’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:

a. date
b. student’s name
c. specific reasons that the penalty assessed by the CAHS is deemed inappropriate, e.g., extenuating circumstances affecting the student’s performance or behavior that the CAHS was unaware of at the time of the decision; misapplication of department policy or procedure, etc.

Step 3 Hearing Before the Student Appeal/Grievance Committee — 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 CAHS’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 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.

Review by the Student Appeal/Grievance Committee

Students in the School of Allied Health Sciences 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.

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:
   a. Selecting a hearing panel of at least five SAGC members to hear the appeal on behalf of the SAGC.
   b. 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.
   c. Conducting the hearing in a fair, unbiased manner.
   d. Recording the testimony at the hearing in audio or video format. The hearing panel’s deliberation following testimony is not recorded.

b. student’s name

e. Providing the Dean with a written summary of the hearing and the hearing panel’s decision.

f. Maintaining a file of all evidence accumulated in the appeal process.

g. Providing 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 a spokesperson for the Committee on Allied Health Studies (CAHS). 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, witnesses, and counsel, if desired.

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 CAHS representative wishes to call witnesses, the CAHS 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

1. Only those individuals who have an interest in the appeal may attend and participate in the appeal hearing. Generally, these individuals are: hearing officer, hearing panel, student, student’s witnesses, student’s counsel, CAHS representative, CAHS’s witnesses, and university’s counsel. Witnesses may be present only during their testimony and questioning.

2. 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.

3. The student presents the issues and rationale for the appeal. The hearing panel may question the student. The student and CAHS representative may question each other, at the discretion of the Hearing Officer.

4. The Hearing Officer will call witnesses as desired by the student and the CAHS, and the hearing panel may question the witnesses. The student and the CAHS representative may question the witnesses at the discretion of the Hearing Officer.

5. Counsel of choice, if requested by the student, may be present to protect the civil rights of the student. 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. 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.

6. 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.

7. The Hearing Officer notifies the Dean of the hearing panel’s decision within five business days of its final meeting on the appeal.

8. The Dean notifies the student and the Department Chair in writing of the hearing panel’s decision within five business days of the decision.

Application and Admission
Information about admission requirements is provided in the Applicant Viewbook of the School of Allied Health Sciences and Viewbook inserts for each program, available online at http://studentservices.uthscsa.edu/Publications/allied.html.

All programs, except for the EMT/Basic and EMT/Paramedic certificate programs, require that prerequisite coursework be successfully completed at another regionally accredited college or university before admission. Programs that award a Bachelor of Science or Bachelor of Science in Health Care Sciences degree require applicants to complete the Texas Core Curriculum in addition to other program prerequisites at another regionally accredited college or university.

Applicants to Master of Science degree programs in Clinical Laboratory Sciences or Dental Hygiene follow application procedures under the Graduate School of Biomedical Sciences section of this Catalog.

Applicants from countries where English is not a native language are required to submit scores on the Test of English as a Foreign Language (TOEFL). A minimum score of 560 on the paper-based test, 220 on the computer-based test, and 68 on the Internet-based test is required.

Attendance in Class and Clinic
Attendance requirements for classes, laboratories, and clinic periods are the option and prerogative of the course instructor. Attendance policies may be found in the department’s student manual or handbook, the course syllabus, and they should be announced by the instructor at the first class meeting.

Unexcused absences in courses in which attendance is required may be considered sufficient cause for failure. Excused absences may be granted by the instructor in such cases as illness or personal emergency and are considered on an individual basis; verification of the reason for the absence may be required. It is the student’s responsibility to make arrangements to make up work that is missed due to absences.

Auditing Courses
Permission to audit courses in the School of Allied Health Sciences is sometimes granted. Auditing conveys only the privilege of observing and excludes handing in papers or taking part in class discussion, laboratory experiences, or fieldwork. No grade is given and no credit is recorded. Students must obtain permission to audit a course from the instructor and the Department Chair of the program in which they are enrolled.

Background Checks
All students offered admission to Allied Health Sciences certificate and degree programs must pass a background check. An offer of admission will not be final until the completion of the background check(s) with results deemed favorable. Students must pay costs for the background check. Information on how to order and pay for the background check is included in the offer of admission letter.

CLEP (College Level Examination Program)
Course credit for specified general education and elective prerequisites may be accepted without a letter grade in School of Allied Health Sciences professional certificate and degree programs if a student earns a satisfactory score on College Level Examination Program (CLEP) examinations.

Core Curriculum
Students receiving their first baccalaureate degree from The University of Texas Health Science Center at San Antonio must successfully complete the Texas Core Curriculum requirements. Detailed information about the UTHSCSA Core Curriculum is provided in this Catalog.

Conditions and Limitations
- Applicants and students are responsible for requesting that official CLEP scores be sent by The College Board to the Registrar.
- CLEP credit awarded by another institution is acceptable if scores are consistent with the minimum scores listed in the tables below. 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 University of Texas Health Science Center at San Antonio transcript.
Credit by Examination

Students in some Allied Health Sciences 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 UTHSCSA or any other college or university.

Academic credit is awarded only to officially enrolled students or former students. Additional eligibility requirements may be established by each department, with the approval of the Dean. Information about additional requirements is available from the department office or 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 Registrar only when the student requests that the department report to the Registrar that the examination was passed. At the department’s request, 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.

The student’s official transcript does not reflect unsuccessful attempts to earn credit by examination. If a student fails a test for credit by examination, the student may earn credit for the course only by enrolling and taking the course.

All tests administered for credit by examination require the payment of a fee, determined by the department and the Registrar. 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.

DANTES (Defense Activity for Non-Traditional Education Support)

Course credit for specified core curriculum requirements and program prerequisites may be accepted without a letter grade in School of Allied Health Sciences professional certificate and degree programs if a student earns a satisfactory score on Defense Activity for Non-Traditional Education Support (DANTES) examinations. (See Table.)

Conditions and Limitations

- Applicants and students are responsible for requesting that official DANTES scores be sent by DANTES to the registrar.
- DANTES credit awarded by another institution is acceptable if scores are consistent with the minimum scores

---

<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>50/47</td>
<td>3</td>
</tr>
<tr>
<td>Chemistry (Lecture)</td>
<td>•Chemistry</td>
<td>50/46</td>
<td>3</td>
</tr>
<tr>
<td>College Algebra, or Higher</td>
<td>•College Algebra</td>
<td>50/46</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>•College Algebra-Trig.</td>
<td>50/45</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>•Calculus</td>
<td>50/41</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>•Trigonometry</td>
<td>50/50</td>
<td>3</td>
</tr>
<tr>
<td>Computer Literacy</td>
<td>•Information Systems and Computer Applications</td>
<td>50/52</td>
<td>3</td>
</tr>
<tr>
<td>Developmental Psychology</td>
<td>•Human Growth and Dev.</td>
<td>50/45</td>
<td>3</td>
</tr>
<tr>
<td>Economics</td>
<td>•Prin of Macroeconomics</td>
<td>50/44</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>•Prin of Microeconomics</td>
<td>50/41</td>
<td>3</td>
</tr>
<tr>
<td>English</td>
<td>•English Literature</td>
<td>50/46</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>•Freshman College Composition</td>
<td>50/44</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>•American Literature</td>
<td>50/46</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>•Analyzing and Interpreting Lit.</td>
<td>50/47</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>•English Composition</td>
<td>50/420</td>
<td>3</td>
</tr>
<tr>
<td>General Biology (Lecture &amp; Lab)</td>
<td>•Biology</td>
<td>50/46</td>
<td>5</td>
</tr>
<tr>
<td>Introduction to Business Admin.</td>
<td>•Principles of Management</td>
<td>50/46</td>
<td>3</td>
</tr>
<tr>
<td>Introduction to Psychology</td>
<td>•Introductory Psychology</td>
<td>50/47</td>
<td>3</td>
</tr>
<tr>
<td>Introduction to Sociology</td>
<td>•Introductory Sociology</td>
<td>50/47</td>
<td>3</td>
</tr>
<tr>
<td>Marketing</td>
<td>•Principles of Marketing</td>
<td>50/50</td>
<td>3</td>
</tr>
<tr>
<td>United States Government</td>
<td>•American Government</td>
<td>50/47</td>
<td>3</td>
</tr>
<tr>
<td>United States History</td>
<td>•U. S. History I</td>
<td>50/47</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>•U. S. History II</td>
<td>50/46</td>
<td>3</td>
</tr>
</tbody>
</table>

* Minimum scores listed are recommended by American Council on Education standard-setting panels for the paper-and-pencil version of the CLEP administered before July 1, 2001.
Core Curriculum Requirements and Program Prerequisites that may be satisfied by DANTES examinations

<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</td>
<td>Principles of Financial Accounting</td>
<td>49</td>
<td>3</td>
</tr>
<tr>
<td>Principles of Accounting</td>
<td>Business Law II</td>
<td>52</td>
<td>3</td>
</tr>
<tr>
<td>Business Law</td>
<td>Fundamentals of College Algebra</td>
<td>47</td>
<td>3</td>
</tr>
<tr>
<td>College Algebra, or higher</td>
<td>Technical Writing</td>
<td>46</td>
<td>3</td>
</tr>
<tr>
<td>Communication</td>
<td>Introduction to Computing</td>
<td>45</td>
<td>3</td>
</tr>
<tr>
<td>Computer Literacy</td>
<td>Management Information Systems</td>
<td>46</td>
<td></td>
</tr>
<tr>
<td>Developmental Psychology</td>
<td>Lifespan Developmental Psychology</td>
<td>46</td>
<td>3</td>
</tr>
<tr>
<td>Electives¹</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></td>
<td>Human/Cultural Geography</td>
<td>48</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Ethics in America</td>
<td>46</td>
<td></td>
</tr>
<tr>
<td>Management Science</td>
<td>Introduction to Business</td>
<td>46</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Principles of Supervision</td>
<td>46</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Fundamentals of College Algebra</td>
<td>47</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Principles of Statistics</td>
<td>48</td>
<td></td>
</tr>
<tr>
<td>Natural Sciences</td>
<td>Astronomy</td>
<td>48</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td>Environment and Humanity: The Race to Save the Planet</td>
<td>46</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Principles of Physical Science I</td>
<td>47</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Physical Geology</td>
<td>46</td>
<td></td>
</tr>
<tr>
<td>Social and Behavioral Sciences</td>
<td>Lifespan Developmental Psychology</td>
<td>46</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>General Anthropology</td>
<td>47</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Organizational Behavior</td>
<td>48</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Introduction to Law Enforcement</td>
<td>45</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Criminal Justice</td>
<td>49</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Fundamentals of Counseling</td>
<td>45</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Principles of Public Speaking</td>
<td>47</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 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.

listed in the tables below. 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.

Dean’s Honor List
Students in certificate or bachelor’s degree programs in the School of Allied Health Sciences 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. Grade point averages for Clinical Laboratory Science students who are enrolled concurrently at The University of Texas at San Antonio are calculated as a combination GPA.

Dropping Courses
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. If a student is enrolled in only one course and wishes to drop that course, the student must withdraw from the School of Allied Health Sciences or apply for a leave of absence.
With the approval of the instructor, a student may drop a course at any time before the last official class day in any semester, and a grade of W will be assigned. A grade of W is not used in calculating the grade point average.

**Essential Functions**

Most departments in the School of Allied Health Sciences 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. These statements may include cognitive, psychomotor, and affective dimensions. For further information, contact the department office.

**Grades and Grade Point Average**

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.

Although a grade of D may be earned in a required Allied Health Sciences course, certain courses in the curriculum must be completed with a grade of C or higher in order for the student to progress in the program. Those courses in which a D is not an acceptable grade are specified in each program description.

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 symbol I (incomplete) may be recorded for a student who has not completed course assignments at the conclusion of the course. Incomplete work must be made up within the time specified by the Committee on Allied Health Studies of the program or the I will be replaced with a grade of F, and the course must be repeated for credit. When an I is issued pending a grade in a course which is a prerequisite for another course, the I must be removed before the student is allowed to enroll in the next sequential 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.

**Course Drop/Withdrawal**

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 (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 Committee on Allied Health Studies (CAHS) through a written request to the course instructor. The petition must state why the student is unable to continue in the course. Acceptable reasons for withdrawal do not include dissatisfaction with the instructor or course or with the expected grade or performance. The CAHS 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 students 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.

**Graduation with Honors**

Honors designations are awarded to students graduating from the baccalaureate programs based upon the following scale:

- *Magna Cum Laude* — Cumulative GPA of 3.50–3.74
- *Summa Cum Laude* — Cumulative GPA of 3.75–4.0

Graduates of the certificate programs in Dental Hygiene and Dental Laboratory Technology with a cumulative GPA of 3.5 or better will be awarded the certificate "With Honors."

**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.

**International Applicants**

International applicants who have completed all or part of their college-level education at schools outside the United States must:

- Submit their foreign transcripts for a course-by-course descriptive evaluation through a university-approved evaluation service, and
• Submit their scores on the Test of English as a Foreign Language (TOEFL)

Required minimum scores on the TOEFL are 560 for the paper test, 220 for the computer-based test, and 68 for the Internet-based test.

Official copies of the transcript evaluation and TOEFL score must be submitted directly to the Registrar from the service provider.

Professional Conduct

Allied Health 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.

The basic guide for professional conduct is found below. In addition, students are responsible for knowing and adhering to the following regulations and guidelines on professional conduct and discipline:

- UTHSCSA’s “Regulations Governing Student Conduct and Discipline,” found in this Catalog
- Rules and Regulations, University of Texas System Board of Regents, found at http://www.utsystem.edu/bor/rules/hompage.htm.
- Additional guidelines for professional conduct may be issued by Allied Health departments or professional organizations. Copies may be available through the departmental office.

Guide for Professional Conduct

Professionalism relates to the intellectual, ethical, behavioral, and attitudinal attributes necessary to perform as a health care provider. Examples of professional behavior are given below, but are not limited to these examples.

The student will be expected to:

1. Demonstrate sound judgment commensurate with the level of training and experience.
2. Serve all patients without discrimination.
3. Recognize and respect the role and competencies of other professionals and cooperate with them to provide effective health care.
4. Exhibit concern primarily for the patient’s welfare rather than for a grade.
5. Exhibit an attitude of respect, concern, and cooperativeness toward peers, staff, and faculty.
6. Hold in confidence the details of professional services rendered and the confidences of any patient.
7. Achieve the highest degree of honesty and integrity by communicating and behaving in an honest, ethical manner.
8. Accept responsibility for own work and results; demonstrate willingness to accept suggestions for improvement.
9. Maintain physical, mental, and emotional composure in all situations.
10. Abide by the regulations and policies of the program and clinical training sites.
11. Practice personal grooming and hygiene.
12. Practice appropriate safety and aseptic techniques.
13. Provide the patient with relevant information to enable the patient to participate in making decisions regarding her/his condition, prognosis, and treatment options.
14. Refuse to participate in or conceal any unlawful, incompetent, or unethical practice.

Readmission

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 Committee on Allied Health Studies. Whether readmission will be considered at the entry level or an advanced level will be determined on an individual basis. All such requests will be considered by the Allied Health Faculty Council and, according to the recommendation of the Council, will be approved or disapproved by the Dean.

Special Student Status

An individual who wishes to enroll in courses offered by the School of Allied Health Sciences without entering a certificate or degree program must apply for admission as a non-degree, or special, student. In general, a special student will have an academic background similar to those ordinarily admitted to Allied Health Sciences 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 special student may be granted by the Dean, Associate Dean, or Department Chair. Special students will be enrolled only if space is available.

Students seeking “special student” status must receive approval for registration each semester by the Dean, Associate Dean, or Department Chair and the instructor of each course; must 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 special students are the same as those for regular students. All grades received as a special 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.
Withdrawal
Permission for withdrawal from a certificate or degree program in the School of Allied Health Sciences may be granted by the Dean or Associate Dean upon the concurrence of the Committee on Allied Health Studies (CAHS). The student who wishes to withdraw must complete the Administrative Clearance Form, 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 will arrange for an exit interview with the Associate Dean.

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.

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.

### School of Allied Health Sciences
### Academic Calendar 2005–2006

<table>
<thead>
<tr>
<th>Fall 2005 Date</th>
<th>Activity</th>
<th>Allied Health PA &amp; OT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monday, May 02, 2005</td>
<td>Registration-Web Opens for Fall 2005</td>
<td>Continuing</td>
</tr>
<tr>
<td>Monday, July 04, 2005</td>
<td>*University Holiday (Offices Closed)</td>
<td>Continuing</td>
</tr>
<tr>
<td>Monday, July 11, 2005</td>
<td>1st Class Day</td>
<td>PA2</td>
</tr>
<tr>
<td>Tuesday, July 26, 2005</td>
<td>Census Day</td>
<td>PA2</td>
</tr>
<tr>
<td>Wed–Fri, August 24–26,2005</td>
<td>Orientation &amp; Registra.-New Students</td>
<td>PA1</td>
</tr>
<tr>
<td>Monday, August 29, 2005</td>
<td>1st Class Day</td>
<td>All Other</td>
</tr>
<tr>
<td>Monday, September 05, 2005</td>
<td>*University Holiday (Offices Closed)</td>
<td>PA1, PA3</td>
</tr>
<tr>
<td>Wednesday, September 14, 2005</td>
<td>Census Day</td>
<td>PA1, PA3</td>
</tr>
<tr>
<td>Monday, September 26, 2005</td>
<td>1st Class Day</td>
<td>OT3</td>
</tr>
<tr>
<td>Tuesday, October 04, 2005</td>
<td>Census Day</td>
<td>OT3</td>
</tr>
<tr>
<td>Thursday, November 24, 2005</td>
<td>*University Holiday (Offices Closed)</td>
<td>PA2</td>
</tr>
<tr>
<td>Friday, November 25, 2005</td>
<td>*University Holiday (Offices Closed)</td>
<td>PA1, PA2 &amp; OT3</td>
</tr>
<tr>
<td>Friday, December 09, 2005</td>
<td>Last Class Day</td>
<td>PA3</td>
</tr>
<tr>
<td>Friday, December 16, 2005</td>
<td>Term Concludes</td>
<td>All</td>
</tr>
<tr>
<td>Friday, December 23, 2005</td>
<td>Graduation (No Ceremony)</td>
<td>All</td>
</tr>
</tbody>
</table>

*University Holidays Tentative

Note: The 2006–2007 Academic Calendar will be made available on the Student Services Web in the Fall.
## School of Allied Health Sciences
### Academic Calendar 2005–2006 (continued)

### Spring 2006

<table>
<thead>
<tr>
<th>Date</th>
<th>Activity</th>
<th>Allied Health</th>
<th>Allied Health PA &amp; OT3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tuesday, November 01, 2005</td>
<td>Registration-Web Opens for Spr. 2006</td>
<td>All (Continuing)</td>
<td>All (Continuing)</td>
</tr>
<tr>
<td>Monday, January 02, 2006</td>
<td>1st Class Day</td>
<td>All (Continuing)</td>
<td>PA1 &amp; PA3</td>
</tr>
<tr>
<td>Monday, January 09, 2006</td>
<td>1st Class Day-Class Resume</td>
<td>PA2 &amp; OT3</td>
<td></td>
</tr>
<tr>
<td>Wed–Fri, January 11–13, 2006</td>
<td>Orientation &amp; Registration-New Students</td>
<td>All</td>
<td></td>
</tr>
<tr>
<td>Monday, January 16, 2006</td>
<td>*University Holiday (Offices Closed)</td>
<td>All</td>
<td></td>
</tr>
<tr>
<td>Tuesday, January 17, 2006</td>
<td>1st Class Day</td>
<td>All Other</td>
<td></td>
</tr>
<tr>
<td>Wednesday, January 18, 2006</td>
<td>Census Day</td>
<td>PA1 &amp; PA3</td>
<td></td>
</tr>
<tr>
<td>Wednesday, January 25, 2006</td>
<td>Census Day</td>
<td>PA2 &amp; OT3</td>
<td></td>
</tr>
<tr>
<td>Wednesday, February 01, 2006</td>
<td>Census Day</td>
<td>All Other</td>
<td></td>
</tr>
<tr>
<td>Monday, February 20, 2006</td>
<td>*University Holiday (Offices Closed)</td>
<td>All Other</td>
<td></td>
</tr>
<tr>
<td>Monday, March 06, 2006</td>
<td>Spring Break Begins</td>
<td>PA1</td>
<td></td>
</tr>
<tr>
<td>Friday, March 10, 2006</td>
<td>Spring Break Ends</td>
<td>PA1</td>
<td></td>
</tr>
<tr>
<td>Monday, March 13, 2006</td>
<td>Spring Break Begins</td>
<td>All</td>
<td>PA2, PA3, OT3</td>
</tr>
<tr>
<td>Friday, March 17, 2006</td>
<td>Spring Break Ends</td>
<td>All</td>
<td>PA2, PA3, OT3</td>
</tr>
<tr>
<td>Friday, March 31, 2006</td>
<td>Term Concludes</td>
<td>OT3</td>
<td></td>
</tr>
<tr>
<td>Friday, May 05, 2006</td>
<td>Last Class Day</td>
<td>All Other</td>
<td></td>
</tr>
<tr>
<td>Friday, May 05, 2006</td>
<td>Term Concludes</td>
<td>PA2</td>
<td></td>
</tr>
<tr>
<td>Friday, May 12, 2006</td>
<td>Term Concludes</td>
<td>All Other</td>
<td></td>
</tr>
<tr>
<td>Thursday, May 18, 2006</td>
<td>Graduation Rehearsal</td>
<td>3:00 PM</td>
<td>3:00 PM</td>
</tr>
<tr>
<td>Friday, May 19, 2006</td>
<td>Term Concludes</td>
<td>PA1 &amp; PA3</td>
<td></td>
</tr>
<tr>
<td>Sunday, May 21, 2006</td>
<td>Graduation-Laurie Auditorium</td>
<td>2:00 PM</td>
<td>2:00 PM</td>
</tr>
<tr>
<td>Monday, May 29, 2006</td>
<td>*University Holiday (Offices Closed)</td>
<td>All Other</td>
<td></td>
</tr>
</tbody>
</table>

*University Holidays Tentative

### Summer 2006

<table>
<thead>
<tr>
<th>Date</th>
<th>Activity</th>
<th>Allied Health</th>
<th>Allied Health PA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monday, April 03, 2006</td>
<td>Registration-Web Opens for Summer 2006</td>
<td>All</td>
<td>All</td>
</tr>
<tr>
<td>Monday, May 22, 2006</td>
<td>1st Class Day</td>
<td>All</td>
<td>All</td>
</tr>
<tr>
<td>Wed–Fri, May 24–26, 2006</td>
<td>Orientation &amp; Registration-New Students</td>
<td>All</td>
<td>All</td>
</tr>
<tr>
<td>Monday, May 29, 2006</td>
<td>*University Holiday (Offices Closed)</td>
<td>All Other</td>
<td>PA2 &amp; PA3</td>
</tr>
<tr>
<td>Tuesday, May 30, 2006</td>
<td>1st Class Day</td>
<td>All Other</td>
<td>PA2 &amp; PA3</td>
</tr>
<tr>
<td>Friday, June 02, 2006</td>
<td>Census Day</td>
<td>All Other</td>
<td>PA2</td>
</tr>
<tr>
<td>Thursday, June 08, 2006</td>
<td>Census Day</td>
<td>All Other</td>
<td>PA3</td>
</tr>
<tr>
<td>Friday, June 09, 2006</td>
<td>Census Day</td>
<td>All Other</td>
<td>PA3</td>
</tr>
<tr>
<td>Wed–Fri, June 28–30, 2006</td>
<td>Orientation &amp; Registration-New Students</td>
<td>PA2</td>
<td></td>
</tr>
<tr>
<td>Friday, June 30, 2006</td>
<td>Term Concludes</td>
<td>All Other</td>
<td>PA2</td>
</tr>
<tr>
<td>Tuesday, July 04, 2006</td>
<td>*University Holiday (Offices Closed)</td>
<td>All Other</td>
<td></td>
</tr>
<tr>
<td>Friday, August 04, 2006</td>
<td>Last Class Day</td>
<td>All Other</td>
<td></td>
</tr>
<tr>
<td>Friday, August 11, 2006</td>
<td>Term Concludes</td>
<td>All Other</td>
<td></td>
</tr>
<tr>
<td>Friday, August 18, 2006</td>
<td>Term Concludes</td>
<td>PA3</td>
<td></td>
</tr>
<tr>
<td>Saturday, August 19, 2006</td>
<td>Graduation (No Exercises)</td>
<td>All</td>
<td>All</td>
</tr>
</tbody>
</table>

*University Holidays Tentative

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**Note:** The 2006–2007 Academic Calendar will be made available on the Student Services Web in the Fall.
CLINICAL LABORATORY SCIENCES

Programs in the Department of Clinical Laboratory Sciences

Clinical laboratory sciences (CLS) is the study and practice of diagnostic medicine. Three areas of CLS can be pursued at the UTHSCSA: clinical laboratory science, cytogenetics, and molecular diagnostics. 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. Molecular diagnostic technologists work in clinical, research, and forensic laboratories where they utilize molecular techniques to provide precise information.

The Department of Clinical Laboratory Sciences offers both undergraduate and graduate degree programs and post-baccalaureate certificate programs in the three areas of study described above (see the table below).

Programs in Clinical Laboratory Sciences and Cytogenetics are accredited by The National Accrediting Agency for Clinical Laboratory Sciences (NAACLS), 8410 West Bryn Mawr Avenue, Suite 670, Chicago, IL 60631-3415, (773) 714-8880; e-mail address info@naacls.org; Web site http://www.naacs.org. The Molecular Diagnostics program is in the process of seeking initial accreditation from NAACLS. The decision regarding accreditation is expected in 2007.

Graduates of the bachelor’s degree program 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, the clinical laboratory scientist has additional career options, including research, teaching, and management.

Advanced Standing Program for CLT/MLT Professionals

The advanced standing program is designed for the clinical laboratory technician (CLT)/medical laboratory technician (MLT) who has earned an associate degree and who is certi-

fied as a CLT by the National Credentialing Agency (NCA) or MLT by the American Society for Clinical Pathology (ASCP). Students must apply and be accepted into the Bachelor of Science degree program at UTHSCSA. Core curriculum and program prerequisite courses must be completed before advancing to the senior year. Advanced professional clinical laboratory sciences courses may be offered by UTHSCSA via distance learning. Students who successfully complete the advanced standing program will receive a Bachelor of Science in Clinical Laboratory Sciences from UTHSCSA.

Bachelor of Science in Clinical Laboratory Sciences

The Bachelor of Science in Clinical Laboratory Sciences degree program is an integrated four-year program that combines core curriculum, basic science, and level one clinical laboratory sciences courses throughout the first three years. The fourth year of the program comprises level two clinical laboratory courses and clinical practicums. Students may choose from two tracks in the bachelor’s degree program: general clinical laboratory sciences and premedical.

Core curriculum and program prerequisite courses for the bachelor’s degree may be taken at any regionally accredited community college or four-year university; the upper-level science courses to include biochemistry must be taken at a four-year university. Generally, all professional clinical laboratory science courses are taken at UTHSCSA.

Students pursuing the Bachelor of Science in Clinical Laboratory Science may earn their degree from UTHSCSA or through a joint degree program from both UTHSCSA and The University of Texas at San Antonio (UTSA). Students interested in the joint degree must apply to UTSA for admission, complete 30 or more semester credit hours at UTSA, and complete UTSA core curriculum requirements in addition to the science prerequisites and UTHSCSA clinical laboratory sciences courses. UTSA students may enroll as early as the freshman year to determine their interest and aptitude in clinical laboratory sciences as a career.

The bachelor’s degree program offers two additional tracks: Cytogenetics and Molecular Diagnostics. These two tracks are available for students who have completed specific core curriculum and program prerequisite courses that may be completed at another regionally.

<table>
<thead>
<tr>
<th>Department</th>
<th>Bachelor of Science</th>
<th>Post-Baccalaureate Certificate</th>
<th>Post-Baccalaureate Categorical Certificate</th>
<th>Master of Science</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clinical Laboratory Science</td>
<td></td>
<td>●</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>Cytogenetics</td>
<td></td>
<td>●</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>Molecular Diagnostics</td>
<td></td>
<td>●</td>
<td>●</td>
<td>●</td>
</tr>
</tbody>
</table>

1Post-baccalaureate Categorical Certificate options include microbiology, clinical chemistry, immunohematology, and hematology
2Master of Science degree tracks include forensic/analytical toxicology and immunohematology
accredited college or university. The last year of these programs comprises prescribed didactic courses and clinical practicums.

Post-baccalaureate Certificate in Clinical Laboratory Sciences
The post-baccalaureate certificate program is designed for students who hold a bachelor’s degree. The curriculum includes 63 semester hours of professional clinical laboratory sciences coursework. 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 18–24 months, depending on when the student enters the program. Certificate students may begin classes in the fall or spring semester.

Post-baccalaureate Certificate in Cytogenetics

Post-baccalaureate Certificate in Molecular Diagnostics
These post-baccalaureate certificate programs address the same purposes as the bachelor's degree tracks in cytogenetics and molecular diagnostics (above). They are available for students who hold a bachelor's degree in biology, chemistry, microbiology, or other closely related field and have completed prerequisite courses. Curricula for the bachelor's degree programs and the certificate programs are identical, and consist of 63 semester credit hours.

The programs may be completed in 12 months, based on full-time enrollment. Part-time enrollment is possible, but full-time students receive scheduling priority for clinical coursework. Most didactic courses are offered one time per year.

Post-baccalaureate Categorical Certificates

Categorical certificate programs in a subdiscipline of clinical laboratory sciences are open to students who hold a bachelor's degree in biology, chemistry, or another closely related field. Categorical certificates are available in microbiology, clinical chemistry, immunohematology, and hematology. Curricula for these programs may be completed in 12 to 18 months, and consist of the following:

<table>
<thead>
<tr>
<th></th>
<th>Prerequisites</th>
<th>CLS Coursework</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Microbiology</td>
<td>30.0</td>
<td>32.0</td>
<td>62.0</td>
</tr>
<tr>
<td>Clinical Chemistry</td>
<td>30.0</td>
<td>30.0</td>
<td>60.0</td>
</tr>
<tr>
<td>Immunohematology</td>
<td>30.0</td>
<td>28.5</td>
<td>58.5</td>
</tr>
<tr>
<td>Hematology</td>
<td>30.0</td>
<td>25.0</td>
<td>55.0</td>
</tr>
</tbody>
</table>

Master of Science in Clinical Laboratory Sciences
The Master of Science in Clinical Laboratory Sciences 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 in the United States. The program offers tracks in forensic/analytic toxicology and immunohematology. Both tracks require a common core of graduate courses, clinical practicums, electives, and the completion of a research thesis project. The minimum number of semester credit hours for graduation is 38 for the forensic/analytical toxicology track and 39 for the immunohematology track. Research opportunities in specialized laboratories are available at UTHSCSA and throughout the city of San Antonio.

Application and Admission
Applications for admission to the Clinical Laboratory Sciences programs may be completed at https://www.applytexas.org/adappc/commonapp.WBX. Detailed information about application and admission is available in the School of Allied Health Sciences Applicant Viewbook, available from the Allied Health Welcome Center at (866) 802-6288 (toll-free) or (210) 567-8744, and online at http://studentservices.uthscsa.edu/publications/allied.html. Completed application, application fee, official transcripts, and supporting documents must be submitted to the Registrar by May 1 to be considered for fall admission or by October 1 for spring admission. Application materials for the cytogenetics and molecular diagnostics programs must be submitted by July 1 for fall admission.

Applicants who are enrolled in college courses at the time of application should submit an official transcript showing courses in progress. An updated transcript should be submitted upon completion of the courses. Conditional admission may be granted contingent on satisfactory completion of the courses in progress.

Admission Factors
The following factors are considered for selecting students for all Clinical Laboratory Sciences programs:

- Academic achievement
- Prerequisite coursework completed
- Work experience, non-health sciences related
- Work experience in the health sciences
- Texas resident status
- Race/ethnicity
- Bilingual ability
- Volunteer activities
- Leadership positions held
- Prior experience in the clinical laboratory
- Community service
- Recommendations by references
- Communication skills
- Motivation for a career in clinical laboratory sciences
• Interpersonal skills
• Maturity
• Knowledge of the profession

**Bachelor of Science in Clinical Laboratory Sciences**
Application requirements for the bachelor’s degree program include:
• 50 semester credit hours of core curriculum and program prerequisite courses
• Overall grade point average of 2.5 (on a 4-point scale)
• Two reference forms completed by former instructors (preferably science instructors)
• Original transcripts from all colleges/universities previously attended

**Post-baccalaureate Certificate in Clinical Laboratory Sciences**
Application requirements for the post-baccalaureate certificate program include:
• Bachelor’s degree in biology, chemistry, or other closely related discipline
• 50 semester credit hours of core curriculum and program prerequisite courses
• Overall grade point average of 2.5 (on a 4-point scale)
• Two reference forms completed by former instructors (preferably science instructors)
• Original transcripts from all colleges/universities previously attended

**Bachelor of Science in Clinical Laboratory Sciences — Cytogenetics Track**
**Post-baccalaureate Certificate in Cytogenetics**
Application requirements for the bachelor’s degree and post-baccalaureate certificate programs in cytogenetics include:
1. Minimum of 90 semester credit hours in core curriculum, science, and math program prerequisite courses (for BS program applicants) or Bachelor’s degree in biology, chemistry, or closely related science (for post-baccalaureate certificate program applicants)
2. Minimum cumulative grade point average of 2.5 (on a 4-point scale)
3. Original transcripts from all previous colleges attended
4. Two letters of reference
5. Prerequisite semester credit hours from the recommended courses listed below, with a grade of C or better, including at least 6 semester credit hours of upper-level coursework:
   • Biological Science (23 semester credit hours from the following): General Biology, with laboratory/4 semester credit hours; Genetics/3 semester credit hours; Cell Biology/3 semester credit hours; Microbiology, with laboratory/4 semester credit hours; Immunology/3 semester credit hours
   • 6 semester credit hours from the following or similar courses: Embryology, Anatomy and Physiology, Hematology, Virology, Human Genetics, Molecular Biology
   • Chemistry (16 hours from the following): General Chemistry, with laboratory; Organic Chemistry I, with laboratory; Organic Chemistry II or Biochemistry
   • Mathematics (3 hours; one course beyond college algebra; statistics recommended)
   • Introduction to Clinical Laboratory Science (may be taken concurrently with program courses)

**Bachelor of Science in Clinical Laboratory Sciences — Molecular Diagnostics Track**
**Post-baccalaureate Certificate in Molecular Diagnostics**
Application requirements for the bachelor’s degree and the post-baccalaureate certificate programs in molecular diagnostics include:
1. Minimum of 90 semester credit hours in core curriculum, science, and math program prerequisite courses (for bachelor’s degree program applicants) or Bachelor’s degree in a natural or physical science (for post-baccalaureate certificate program applicants)
2. Minimum cumulative grade point average of 2.5 (on a 4-point scale)
3. Original transcripts from all previous colleges attended
4. Two letters of reference
5. Prerequisite semester credit hours from the recommended courses listed below, with a grade of C or better, including at least 6 semester credit hours of upper-level coursework:
   • Biological Science (23 semester credit hours from the following): General Biology, with laboratory/4 semester credit hours; Genetics/3 semester credit hours; Cell Biology/3 semester credit hours; Microbiology, with laboratory/4 semester credit hours; Immunology/3 semester credit hours
   • 6 semester credit hours from the following or similar courses: Embryology, Anatomy and Physiology, Hematology, Virology, Human Genetics, Molecular Biology
   • Chemistry (16 hours from the following): General Chemistry, with laboratory; Organic Chemistry, with laboratory/8 semester credit hours; Cell Biology/3 semester credit hours; Microbiology, with laboratory/4 semester credit hours; Immunology/3 semester credit hours
   • Statistics, or other mathematics beyond college algebra/3 semester credit hours

* Highly recommended

**Post-baccalaureate Categorical Certificates in Clinical Laboratory Sciences**
Application requirements for categorical certificate programs include:
• Bachelor’s degree in biology, chemistry, or other closely related field
30 semester credit hours of program prerequisite courses
Overall grade point average of 2.5 (on a 4-point scale)
Two reference forms completed by former instructors (preferably science instructors)
Original transcripts from all colleges/universities previously attended

**Prerequisites**

Prerequisites for the **microbiology categorical certificate** consist of 30 semester credit hours of biological sciences, including a minimum of 20 semester credit hours of microbiology. Prerequisites include genetics, general microbiology with lab, biochemistry, physiology, statistics, and immunology (upper division immunology or CLSC 3065). These prerequisites may have been completed as part of the bachelor’s degree or may be taken concurrently with courses from the microbiology categorical certificate curriculum upon approval of the faculty advisor.

Prerequisites for the **clinical chemistry categorical certificate** consist of 30 semester credit hours of biology and chemistry, including a minimum of 16 semester credit hours of chemistry. Prerequisites include general chemistry I with lab, general chemistry II with lab, organic chemistry I with lab, biochemistry, immunology (upper division immunology or CLSC 3065), statistics, and human physiology. These prerequisites may have been completed as part of the bachelor’s degree or make be taken concurrently with courses from the clinical chemistry categorical certificate curriculum upon approval of the faculty advisor.

Prerequisites for the **immunohematology categorical certificate** consist of 30 semester credit hours of biology and chemistry. Prerequisites include computer science, genetics, immunology, statistics, and biochemistry. If immunology has not been completed as part of the student’s prerequisites, the following courses will satisfy the requirement: CLSC 3072/3073, CLSC 3070, CLSC 3071, or CLSC 4035. These prerequisites may have been completed as part of the bachelor’s degree or make be taken concurrently with courses from the immunohematology categorical certificate curriculum upon approval of the faculty advisor.

Prerequisites for the **hematology categorical certificate** consist of 30 semester credit hours of biology and chemistry. Prerequisites include genetics, immunology (upper division immunology or CLSC 3065), statistics, physiology, and biochemistry. These prerequisites may have been completed as part of the bachelor’s degree or make be taken concurrently with courses from the hematology categorical certificate curriculum upon approval of the faculty advisor.

**Master of Science in Clinical Laboratory Sciences — Immunohematology Track**

**Master of Science in Clinical Laboratory Sciences — Forensic/Analytic Toxicology Track**

Admission requirements for master’s degree programs 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 grade point average of 3.0 (on a 4.0 point scale)
- Graduate Record Examination minimum score of 1000 (combined Verbal and Quantitative); scores must not be older than 5 years
- Prerequisite courses for the chosen track (see below)

**Immunohematology Track Prerequisites**

In addition to the requirements above, the following prerequisites are required for the immunohematology track:

- Biological Science: 16 semester credit hours, including one semester of immunology and one semester of microbiology
- Chemistry: 16 semester credit hours, including one semester of organic chemistry or biochemistry
- Mathematics: 3 semester credit hours, at or above precalculus
- Statistics: 3 semester credit hours
- Certification as a Clinical Laboratory Scientist (CLS) or Immunohematologist (CLS/I) by NCA, or as a medical technologist (MT) or blood bank technologist (BB) by ASCP; foreign certification is not recognized as equivalent
- Minimum of one year post-baccalaureate clinical experience acceptable to the Medical Director of the specialist in blood banking (SBB) program

**Forensic/Analytic Toxicology Track Prerequisites**

In addition to the requirements above, the following prerequisites are required for the toxicology track:

- Biochemistry, with laboratory/4–5 semester credit hours
- Biology, including physiology/8 semester credit hours
- Calculus/3 semester credit hours
- General Chemistry I, with laboratory/4–5 semester credit hours
- General Chemistry II, with laboratory/4–5 semester credit hours
- Immunology (highly recommended)/3 semester credit hours
- Instrumental Analysis or Clinical Chemistry/3 semester credit hours
- Organic Chemistry I, with laboratory/4–5 semester credit hours
- Organic Chemistry II, with laboratory/4–5 semester credit hours
• Physics I, with laboratory/3–5 semester credit hours
• Physics II, with laboratory/3–5 semester credit hours
• Statistics (highly recommended/3 semester credit hours
• Demonstrated computer literacy

General Policies and Information

Advancement, Probation, and Dismissal
Advancement requires that the student complete scheduled program requirements each semester with a minimum grade of C in all basic science and clinical laboratory science courses. Grades of D or F must be remediated before the student may begin clinical practicums during the senior year. Failure to remediate these grades to C or better after repeating the course will result in the student’s forfeiting her/his position in the program. If there is not sufficient time for grades to be remediated before clinical practicums are scheduled to begin, the practicums may be postponed.

A student will be placed on probation if the student fails to meet specified requirements and/or conditions imposed at the time of her/his acceptance. A student who earns a D or F will be placed on probation until the grade is remediated. Should remediation require that the student retake the course when it is offered the following year, graduation will be delayed. A second D or F in a CLS course will result in review and probable dismissal. A student receiving a combination of two Ds or Fs in senior course work will be dismissed from the program.

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 the student must file an Intent to Enroll in Clinical Practicum form, available from the department office, with the program office at least one semester before practicums begin. At this time the student’s file will be reviewed for advancement, and a letter will be sent to the student indicating results of the review.

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
Students must be advised each semester before permission is given to enroll in professional courses. For students in the Bachelor of Science in Clinical Laboratory Sciences program, sequencing and completion of specific courses are important if all lower-division coursework is to be completed during the freshman and sophomore years.

Attendance
Students are expected to be prompt and attend scheduled lectures and laboratories. If a student is unable to attend class, he/she should call the Department office to advise faculty of the absence. No make-up tests are given except under unusual circumstances. If the student is unable to attend clinical practicum or will be late, the program faculty and laboratory supervisor must be notified each day the student is out.

Certification
Students who successfully complete a certificate or degree in Clinical Laboratory Sciences, Cytogenetics, or Molecular Diagnostics are eligible to take the national certification examinations given by the National Credentialing Agency for Laboratory Personnel (NCA) or the American Society for Clinical Pathology (ASCP). Awarding of the degree or certificate is not contingent on passing an external certification or licensing examination.

Clinical Practicums
During the senior year, CLS students will obtain clinical experience through a series of clinical practicums. The clinical practicum sites are located within the San Antonio area and at various health care facilities in South Texas, including Brownsville, Del Rio, Eagle Pass, and Uvalde. Students will rotate through a combination of sites.

During the second and third semesters, students in the cytogenetics and molecular diagnostics programs will obtain their clinical experience in one or more clinical sites that may or may not be located in San Antonio. Each student’s clinical practicum aims to provide comprehensive exposure to a wide variety of technology.

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 Allied Health Sciences 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) 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.
Graduation Requirements
Degree- and certificate-seeking students must complete all courses listed as required core curriculum, program prerequisite, or professional education courses in order to graduate. Certificate students with current certification in a clinical laboratory sciences discipline, e.g., cytogenetic technology, clinical laboratory sciences, etc., may petition for exemption from didactic courses taken within the last seven years for which they can demonstrate content equivalency.

The minimum grade point average required for graduation from the Bachelor of Science and certificate programs is 2.0. Minimum grade point average for Master of Science students is 3.0 (see “Graduate School of Biomedical Sciences”).

Students in the cytogenetics and molecular diagnostics programs must complete all UTHSCSA coursework within 3 years from the time of entry.

Immunizations/Safety and Protection Requirements
In laboratories, students are expected to wear laboratory coats, closed-toe shoes, and latex gloves. Safety goggles are available. In affiliate clinical laboratories, students may be required to adhere to additional safety precautions and dress codes.

Students are required to attend a laboratory safety orientation, read all safety procedures contained in laboratory manuals, and pass a written safety examination before they are allowed to work in departmental or clinical affiliate laboratories. Hepatitis immunizations are required before students are allowed to work with specimens in the department laboratories and/or in affiliate clinical laboratories.

International Applicants
See “International Applicants – Transcripts and TOEFL” in the Allied Health Sciences section of this Catalog.

Placement Examinations and Updating Coursework
Individuals who have earned an associate degree from an accredited CLT/MLT program or who have completed a CLT/MLT equivalent training program through the military, but are not certified as a CLT or MLT may be awarded credit for level one clinical laboratory science courses through placement examinations. Placement examinations may be given to determine areas of strengths and weaknesses. These individuals may also enroll in senior-level Web-based courses.

Students who have completed science or clinical laboratory science coursework more than 7 years before enrolling in the program must consult with the Department Chair about updating knowledge and skills in these areas.

Professional Behavior
A. Cheating and other forms of scholastic dishonesty are not tolerated.

B. Attendance
1. Lecture courses are coordinated by the Clinical Laboratory Sciences faculty in cooperation with pathologists and other clinical faculty as guest lecturers. These lectures are designed to present information not always available in textbooks and to provide students the opportunity to develop interpretation and problem solving skills. Therefore, promptness and attendance at all lectures are expected. Lateness is defined as entrance into the classroom any time after class has begun. Each individual faculty member will discuss their policy for attendance and lateness.
2. Clinical practicums are scheduled individually, based on facility work schedules. Students are required to be in attendance the entire time scheduled.
3. If the student is unable to attend clinical practicum or will be late, CLS department faculty and the laboratory supervisor of the section must be notified each day.
4. Regardless of absence in lecture or clinical practicum, all required work must be completed. Absence in the practicum will require make-up time for the number of hours missed. Make-up time will be arranged with the Education Coordinator and clinical instructor to assure appropriate supervision of learning activities. Extended illness may require enrollment in an additional semester. Absence in lecture may require additional oral or written assignments.

C. Dress Code
Students will not be allowed in the clinical laboratories or lecture without appropriate attire. The student will be required to make up all time lost due to violation of the dress code.

1. The following dress code is prescribed during practicum to assure safety and to maintain a professional image. Students must adhere to the dress code of the affiliate clinical sites.
   a. Students are expected to wear a uniform or a clean lab coat over street clothes. Street clothes should be conservative and professional.
   b. Shoes must be closed-toe and closed-heel.
   c. Blue jeans, T-shirts, sandals, high-heeled shoes, and shorts will not be permitted.
   d. Hair should be neat and tied back, if long.
   e. Jewelry, if worn, should be conservative.
2. Dress for lecture may be informal, but not distracting.
3. Students are expected to be neat, clean, and professional at all times.

D. Breach of professional conduct, as described in the “Clinical Laboratory Sciences Student Code of Ethics” and School of Allied Health Sciences “Guide for Professional Conduct,” will result in warnings, disciplinary measures, and/or dismissal.
E. A student may not be allowed to continue in the program at any time based upon recommendation of the Committee on Allied Health Studies in Clinical Laboratory Sciences. The recommendation may be made upon evidence that the student has not exhibited the physical, moral, or mental qualities necessary for a clinical laboratory scientist. This action is independent of the student’s cumulative or semester grade point average or of grades earned in any academic subject.

F. Since both clinical instructors and students are under considerable stress, an occasional personality conflict may occur. If a conflict arises, the student should seek to discuss the problem with the clinical instructor when appropriate. The Education Coordinator also should be advised by the student of this occurrence. The Coordinator will attempt to solve the problem by discussions with any or all of the following persons: clinical instructors, student, and Program Director/Department Chair. If a resolution cannot be achieved, the student may be reassigned. Repeated conflicts with clinical faculty will be reviewed by the Committee on Allied Health Studies in Clinical Laboratory Sciences. Conflicts may be considered as reason for counseling of the student by the appropriate Program Director and possible review by the Committee on Allied Health Studies in Clinical Laboratory Sciences. (See section “E.”)

G. Professional and community service forms must be completed and submitted to the program directors before the end of the semester. Grades will not be released to students not completing this requirement. This is a 4-semester requirement for Clinical Laboratory Sciences and 2-semester requirements for Cytogenetics and Molecular Diagnostics.

The student will receive a revised copy of the Program Philosophy and Policies as these policies are reviewed and updated each year. The student will be responsible for reviewing the updated copy of the program policies and signing the appropriate form indicating that they have read and understood the policies.

Program Costs
Total UTHSCSA costs for tuition and fees, health and liability insurance, parking permit, etc., are approximately $12,700 for the two years in the Bachelor of Science in Clinical Laboratory Sciences program, $7,900 for one year in Cytogenetics programs, $7,700 for one year in Molecular Diagnostics programs, and $8,400 for Master of Science programs. In addition, costs for other expenses such as textbooks, course manuals, equipment, uniforms or scrubs, and supplies are approximately $1,900 for the Bachelor of Science in Clinical Laboratory Sciences, $800 for Cytogenetics programs, $500 for Molecular Diagnostics programs, and $1,400 for Master of Science programs.

Travel and living expenses for local and out-of-town clinical practicums are not included in this estimate. Nonresident students are subject to additional tuition costs (see “Financial Information” in this Catalog).

Student Code of Ethics
As a student of Clinical Laboratory Sciences at UTHSCSA, I hereby pledge to conduct myself in the following manner:

1. Conduct myself with the highest degree of honesty and integrity and never betray the trust placed in me by my instructors.
2. Accept responsibility for my own work and results.
3. Conduct myself in a professional manner both on and off campus, and thus help reflect a positive image for my school.
4. Assume a professional manner in attire and conduct.
5. Practice good safety habits in the laboratory and when handling biologically hazardous materials.
6. Safeguard the dignity and privacy of patients and confidentiality of patient information.
7. Treat all body fluids and specimens with great respect; and always remember that they are collected from fellow human beings in order to help improve their quality of life.
8. Establish a rapport with other health professionals.
9. Establish confidence of the patient through kindness and empathy.
10. Hold colleagues and profession in high esteem.
11. Avoid plagiarism and follow copyright guidelines.

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.

Program Curricula
Bachelor of Science in Clinical Laboratory Sciences

Post-baccalaureate Certificates in Clinical Laboratory Sciences
The courses listed below constitute the curriculum for the bachelor’s degree and post-baccalaureate certificates in clinical laboratory sciences. All students receiving a bachelor’s degree from a Texas public college or university must complete the Texas core curriculum. Bachelor’s degree students in clinical laboratory sciences program may fulfill UTHSCSA’s core curriculum or the core curriculum of another Texas public college or university. Students in the post-baccalaureate programs are not required to complete the core curriculum; however, they must complete program prerequisites.
UTHSCSA Core Curriculum — Information on UTHSCSA’s core curriculum is provided in this Catalog. Students are encouraged to seek advisement from the program office about program prerequisites that may fulfill UTHSCSA core curriculum requirements.

UTSA Core Curriculum¹ — The University of Texas at San Antonio’s core curriculum consists of 42 semester credit hours in the categories listed below. Students pursuing the UTHSCSA/UTSA joint degree program must satisfy these requirements.

<table>
<thead>
<tr>
<th>Credit Hours</th>
<th>Rhetoric</th>
<th>Domain I: Mathematics</th>
<th>Science/Technology</th>
<th>Domain II: History</th>
<th>Political Science</th>
<th>Social Science</th>
<th>Economics</th>
<th>Domain III: Literature</th>
<th>Arts</th>
<th>Domain IV: Interdisciplinary Studies</th>
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Science Requirements with UTSA Equivalents

(Note: Students at other institutions should consult their college/university catalog for equivalent courses.)

<table>
<thead>
<tr>
<th>Credit Hours</th>
<th>AHS 1883 (UTSA) or Intro. to Clinical Lab. Sciences</th>
<th>BIO 1113, 1122 Biology I and Laboratory</th>
<th>BIO 1123 Biology II</th>
<th>BIO 2313 Genetics</th>
<th>BIO 2322 Genetics Laboratory</th>
<th>BIO 3413 General Physiology I</th>
<th>BIO 3513 Biochemistry</th>
<th>BIO 3713, 3722 Microbiology and Laboratory</th>
<th>CHE 1103, 1122 General Chemistry I and Lab</th>
<th>CHE 1303, 1312 General Chemistry II and Lab</th>
<th>CHE 2204, 2242 Organic Chemistry and Lab</th>
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Science Requirements Total 37–40*

Additional Science and Math Requirements for CLS Tracks

General CLS Track

<table>
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<tr>
<th>Credit Hours</th>
<th>MAT 1093 Precalculus</th>
<th>STA 1053 Statistics</th>
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Premedical Track

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<thead>
<tr>
<th>Credit Hours</th>
<th>CHE 2203/2242 Organic Chemistry II and Lab</th>
<th>MAT 1214 Calculus I</th>
<th>PHY 1603/1611 Physics I and Laboratory</th>
<th>PHY 1623/1631 Physics II and Laboratory</th>
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Bachelor of Science in Clinical Laboratory Sciences — Cytogenetics Track

Post-baccalaureate Certificate in Cytogenetics

<table>
<thead>
<tr>
<th>Credit Hours</th>
<th>CLSC 2000 Intro. to Clinical Lab. Sciences</th>
<th>CLSC 4035 Intro. to Molecular Diagnostics</th>
<th>CLSC 4040 Human Genetics</th>
<th>CLSC 4041 Clinical Cytogenetics</th>
<th>CLSC 4042 Hematology for the Geneticist</th>
<th>CLSC 4043 Cytogenetics Techniques</th>
<th>CLSC 4044 Current Topics in Genetics</th>
<th>CLSC 4092 Management I</th>
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</tbody>
</table>

Semester Total 15.0

¹ See current UTSA Catalog

* 37 semester credit hours if student takes CLSC 2000 at UTHSCSA; 40 semester credit hours if student takes AHS 1883 at UTSA

* Program prerequisites fulfill these requirements.

² 60 semester credit hours if student takes AHS 1883 at UTSA; 63 semester credit hours if student takes CLSC 2000 at UTHSCSA

** Applicants with background in these areas, see advisor.
### Spring Semester
- CLSC 4045: Clinical Cytogenetics Laboratory I 6.0
- CLSC 4046: Clinical Cytogenetics Laboratory II 6.0
- CLSC 4047: Clinical Cytogenetics Laboratory III 6.0
- **Semester Total**: 18.0

### Summer Semester
- CLSC 4048: Clinical Cytogenetics Laboratory IV 6.0
- CLSC 4049: Cytogenetics Laboratory Practices 1.5
- **Semester Total**: 7.5
- **Program Total**: 40.5

---

### Bachelor of Science in Clinical Laboratory Sciences — Molecular Diagnostics Track

#### Post-baccalaureate Certificate in Molecular Diagnostics

<table>
<thead>
<tr>
<th>Fall Semester</th>
<th>Credit Hours</th>
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<tbody>
<tr>
<td>CLSC 4040: Human Genetics</td>
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<tr>
<td>CLSC 4036: Advanced Molecular and Laboratory Diagnostics – Lecture</td>
<td>3.0</td>
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<tr>
<td>CLSC 4092: Management I</td>
<td>1.0</td>
</tr>
<tr>
<td>CLSC 4034: Advanced Molecular and Laboratory Diagnostics – Lab</td>
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</tr>
<tr>
<td>CLSC 4044: Current Topics in Genetics</td>
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<tr>
<td>CLSC 4042: Hematology for the Geneticist</td>
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<tr>
<td>CLSC 4035: Intro to Molecular Diagnostics</td>
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<tr>
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<table>
<thead>
<tr>
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<tbody>
<tr>
<td>CLSC 4010: Advanced Molecular Diagnostics Practicum I</td>
<td>6.0</td>
</tr>
<tr>
<td>CLSC 4011: Advanced Molecular Diagnostics Practicum II</td>
<td>6.0</td>
</tr>
<tr>
<td>CLSC 4012: Advanced Molecular Diagnostics Practicum III</td>
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<tr>
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<table>
<thead>
<tr>
<th>Summer Semester</th>
<th>Credit Hours</th>
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<tbody>
<tr>
<td>CLSC 4013: Advanced Molecular Diagnostics Practicum IV</td>
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<tr>
<td>CLSC 4014: Molecular Diagnostics Laboratory Practices</td>
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<td><strong>Semester Total</strong>: 8.0</td>
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<tr>
<td><strong>Program Total</strong>: 39.5</td>
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</table>

Successful completion of all courses, including core curriculum (for Bachelor of Science degree students) and program prerequisites, is required for graduation. Post-baccalaureate certificate students with current certification in a clinical laboratory sciences discipline (cytotechnology, clinical laboratory science, etc.) may petition for exemption from didactic courses for which they can demonstrate content equivalency within the last 7 years. All coursework offered at UTHSCSA must be completed within 3 years after entering the program.

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### Microbiology Categorical Certificate

<table>
<thead>
<tr>
<th>Summer Semester</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CLSC 3010: Body Fluids</td>
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<table>
<thead>
<tr>
<th>Fall Semester</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CLSC 2000:</td>
<td></td>
</tr>
<tr>
<td>or AH 1883 (UTSA) Intro. to Clinical Laboratory Sciences</td>
<td>3.0</td>
</tr>
<tr>
<td>CLSC 3001: Phlebotomy Practicum</td>
<td>0.5</td>
</tr>
<tr>
<td>CLSC 3003: Parasitology and Mycology Laboratory</td>
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<td>CLSC 3004: Parasitology and Mycology</td>
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<td><strong>Semester Total</strong>: 6.5</td>
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<table>
<thead>
<tr>
<th>Spring Semester</th>
<th>Credit Hours</th>
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</thead>
<tbody>
<tr>
<td>CLSC 4038: Microbiology Categorical Practicum</td>
<td>10.0</td>
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### Clinical Chemistry Categorical Certificate

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<tr>
<th>Summer Semester</th>
<th>Credit Hours</th>
</tr>
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<tbody>
<tr>
<td>CLSC 3010: Body Fluids</td>
<td>2.0</td>
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<tr>
<td>CLSC 3081: Clinical Chemistry</td>
<td>2.5</td>
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<tr>
<td>CLSC 3082: Clinical Chemistry Laboratory</td>
<td>2.5</td>
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<td><strong>Semester Total</strong>: 7.0</td>
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<th>Fall Semester</th>
<th>Credit Hours</th>
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</tr>
<tr>
<td>CLSC 3001: Phlebotomy Practicum</td>
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</tr>
<tr>
<td>CLSC 4035: Introduction to Molecular Diagnostics</td>
<td>1.5</td>
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<tr>
<td>CLSC 4092: Management I</td>
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<th>Credit Hours</th>
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<tbody>
<tr>
<td>CLSC 3011: Quality Assurance in the Clinical Laboratory</td>
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</tr>
<tr>
<td>CLSC 3033: Medical Microbiology</td>
<td>3.0</td>
</tr>
<tr>
<td>CLSC 3034: Medical Microbiology Laboratory</td>
<td>2.0</td>
</tr>
<tr>
<td>CLSC 4093: Management II Techniques for Clinical Laboratory Sciences</td>
<td>2.0</td>
</tr>
<tr>
<td>INTD 4006: Professional Issues</td>
<td>1.0</td>
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<tr>
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<tbody>
<tr>
<td>CLSC 4038: Microbiology Categorical Practicum</td>
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### Clinical Chemistry Categorical Certificate Total: 30.0

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### Post-baccalaureate Categorical Certificates in Microbiology, Clinical Chemistry, Immunohematology, and Hematology

#### Microbiology Categorical Certificate

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<tr>
<th>Summer Semester</th>
<th>Credit Hours</th>
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<tbody>
<tr>
<td>CLSC 3010: Body Fluids</td>
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</tr>
<tr>
<td>CLSC 3001: Phlebotomy Practicum</td>
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<tr>
<td>CLSC 3003: Parasitology and Mycology Laboratory</td>
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<table>
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<tbody>
<tr>
<td>CLSC 4011: Quality Assurance in the Clinical Laboratory</td>
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<td>CLSC 3034: Medical Microbiology Laboratory</td>
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<tr>
<td>CLSC 4093: Management II Techniques for Clinical Laboratory Sciences</td>
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### Clinical Chemistry Categorical Certificate Total: 30.0

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### Post-baccalaureate Categorical Certificates in Microbiology, Clinical Chemistry, Immunohematology, and Hematology

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<td>CLSC 3081: Clinical Chemistry</td>
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### Clinical Chemistry Categorical Certificate Total: 30.0
Immunohematology Categorical Certificate

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| Spring Semester | |
| CLSC 3001 Phlebotomy Practicum | 0.5 |
| CLSC 3011 Quality Assurance in the Clinical Laboratory | 1.0 |
| CLSC 3051 Hematology | 3.0 |
| CLSC 3052 Hematology Laboratory | 2.0 |
| CLSC 4055 Advanced Immunohematology | 2.0 |
| CLSC 4093 Management II Techniques for Clinical Laboratory Sciences | 2.0 |
| INTD 4006 Professional Issues | 1.0 |
| Semester Total | 11.5 |

| Summer Semester | |
| CLSC 4068 Immunohematology Categorical Practicum | 6.0 |
| Immunohematology Categorical Certificate Total | 28.5 |

Hematology Categorical Certificate

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| Summer Semester | |
| CLSC 3010 Body Fluids | 2.0 |
| CLSC 3001 Phlebotomy Practicum | 0.5 |
| Semester Total | 2.5 |

| Fall Semester | |
| CLSC 4035 Introduction to Molecular Diagnostics | 1.5 |
| CLSC 4053 Advanced Hematology | 2.0 |
| CLSC 4058 Hematology Categorical Practicum | 6.0 |
| CLSC 4092 Management I | 1.0 |
| Semester Total | 10.5 |

| Hematology Categorical Certificate Total | 25.0 |

Master of Science in Clinical Laboratory Sciences — Immunohematology Track

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<tr>
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<td>CLSC 5012 Immunohematology II: Human Blood Group Systems</td>
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Second Year

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* First Year includes summer semester.
**Course Descriptions**

**CLSC 2000  Introduction to Clinical Laboratory Sciences**

3.0 Semester Credit Hours

An overview of the clinical laboratory science 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 is included. The third area is laboratory mathematics and quality assurance. This Web-based course is offered through the UT Telecampus. 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 UTHSCSA. The cost for non-Texas residents living outside of Texas is $165.50 per semester credit hour.

**CLSC 2005  Special Topics in Parasitology and Mycology**

1.0–3.0 Semester Credit Hours

Permission from course director required to enroll

Prerequisite: proficiency exam

This course is designed for students who have completed a course which included parasitology and mycology at an accredited CLT/MLT program. The course provides the student the opportunity to gain an understanding of selected parasitology and mycology 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.

**CLSC 2053  Special Topics in Hematology**

1.0–5.0 Semester Credit Hours

Permission from course director required to enroll

Prerequisite: proficiency exam

This course is designed for students who have completed a hematology course at an accredited CLT/MLT program. The course provides the student the opportunity to gain an understanding of selected hematology 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.

**CLSC 3001  Phlebotomy Practicum**

0.5 Semester Credit Hour

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 3003  Parasitology and Mycology Laboratory**

1.0 Semester Credit Hour

Concurrent enrollment in CLSC 3004

A clinical laboratory course emphasizing the diagnostic stages of parasites of man. In the mycology portion of the course, students will have the opportunity to isolate and identify fungi pathogenic to man. Lab fee: $20. Microscope fee: $16.

**CLSC 3004  Parasitology and Mycology**

2.0 Semester Credit Hours

The parasitology portion of this course is a study of protozoa and helminthes that parasitize man. Emphasis is placed on the identification and differentiation of pathogenic organisms. The mycology portion of the course is a study of the structural characteristics, diagnostic features and isolation methods of fungal agents pathogenic to man. Specimen collection, processing, and handling are discussed.

**CLSC 3010  Body Fluids**

2.0 Semester Credit Hours

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. Lab fee: $30. Microscope fee: $16.

**CLSC 3011  Quality Assurance in the Clinical Laboratory**

1.0 Semester 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**

1.0–2.0 Semester Credit Hours

Permission from course director required to enroll

Prerequisite: proficiency exam

This course is designed for students who have completed a course which 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 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.
CLSC 3022  Special Topics in Body Fluids  
1.0–2.0 Semester Credit Hours  
Permission from course director required to enroll  
Prerequisite: proficiency exam  
This course is designed for students who have completed a course which 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 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.

CLSC 3033  Medical Microbiology  
3.0 Semester Credit Hours  
Prerequisite: BIO 3713, 3722  
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 Laboratory  
2.0 Semester Credit Hours  
Concurrent enrollment in CLSC 3033  
A laboratory course emphasizing diagnostic clinical microbiology. Examination of samples from different body sites provide 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 applications of quality control procedures are practiced. Lab fee: $30. Microscope fee: $16.

CLSC 3035  Special Topics in Medical Microbiology  
1.0–5.0 Semester Credit Hours  
Permission from course director required to enroll  
Prerequisite: proficiency exam  
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 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.

CLSC 3051  Hematology  
3.0 Semester Credit Hours  
Prerequisite: AHS 1883  
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 will also be examined. Normal hemostasis will be considered including pertinent laboratory tests used in diagnosis of coagulation problems.

CLSC 3052  Hematology Laboratory  
2.0 Semester Credit Hours  
Concurrent enrollment in CLSC 3051  
A clinical laboratory course emphasizing manual and semiautomated 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. Lab fee: $30. Microscope fee: $16.

CLSC 3060  Immunohematology  
2.0 Semester Credit Hours  
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  
1.0–4.0 Semester Credit Hours  
Permission from course director required to enroll  
Prerequisite: proficiency exam  
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.

CLSC 3064  Immunohematology Laboratory  
2.0 Semester Credit Hours  
Concurrent enrollment in CLSC 3060  
A laboratory course emphasizing basic bloodbanking 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. Lab fee: $30. Microscope fee: $16.

CLSC 3065  Clinical Immunology  
3.0 Semester 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 Semester Credit Hours  
Prerequisite: Immunology  
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.

CLSC 3071  Diagnostic Immunology Laboratory  
0.5 Semester Credit Hour  
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. Lab fee: $30. Microscope fee: $16.
CLSC 3072  Molecular and Immunological Diagnostics
4.0 Semester Credit Hours
Prerequisite: BIO 2313 Genetics
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 Immunological Diagnostics Laboratory
1.0 Semester Credit Hour
Concurrent enrollment in CLSC 3072
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.

CLSC 3081  Clinical Chemistry
2.5 Semester Credit Hours
Prerequisites: CHE 2203, 2242; BIO 3513
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 Semester Credit Hours
Prerequisites: BIO 3513, AHS 3463 and concurrent enrollment in CLSC 3081
A laboratory course emphasizing biochemical analysis of body fluids utilizing manual procedures and semiautomated 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. Lab fee: $30.

CLSC 3083  Special Topics in Clinical Chemistry
1.0–4.0 Semester Credit Hours
Permission from course director required to enroll
Prerequisite: proficiency exam
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 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.

CLSC 4010  Advanced Molecular Diagnostics Practicum I
6.0 Semester Credit Hours
Under the direction of a qualified instructor, the student will have the opportunity to gain expertise and confidence working with general molecular biology and molecular-based diagnostic and identification techniques. The specific laboratories will include any and all molecular based laboratories with an emphasis on the clinical laboratory and clinical diagnosis. In addition, expertise in the pathology laboratory, research laboratory, forensics laboratory, biotechnology laboratory, and company based R&D laboratory will be acquired. Students will have the opportunity to become proficient at clinical specimen processing for molecular diagnostics as well as non-clinical processing. Specific techniques will be emphasized and performed in the various laboratories.

CLSC 4011  Advanced Molecular Diagnostics Practicum II
6.0 Semester Credit Hours
Under the direction of a qualified instructor, the student will have the opportunity to gain expertise and confidence working with general molecular biology and molecular-based diagnostic and identification techniques. The specific laboratories will include any and all molecular based laboratories with an emphasis on the clinical laboratory and clinical diagnosis. In addition, expertise in the pathology laboratory, research laboratory, forensics laboratory, biotechnology laboratory, and company based R&D laboratory will be acquired. Students will have the opportunity to become proficient at clinical specimen processing for molecular diagnostics as well as non-clinical processing. Specific techniques will be emphasized and performed in the various laboratories.

CLSC 4012  Advanced Molecular Diagnostics Practicum III
6.0 Semester Credit Hours
Under the direction of a qualified instructor, the student will have the opportunity to also gain expertise and confidence working with general molecular biology and molecular-based diagnostic and identification techniques. The specific laboratories will include any and all molecular-based laboratories with an emphasis on the clinical laboratory and clinical diagnosis. In addition, expertise in the pathology laboratory, research laboratory, forensics laboratory, biotechnology laboratory, and company based R&D laboratory will be required. Students will have the opportunity to become proficient at clinical specimen processing for molecular diagnostics as well as non-clinical processing. Specific techniques will be emphasized and performed in the various laboratories.

CLSC 4013  Advanced Molecular Diagnostics Practicum IV
6.0 Semester Credit Hours
Under the direction of a qualified instructor, the student will have the opportunity to gain expertise and confidence working with general molecular biology and molecular-based diagnostic and identification techniques. The specific laboratories will include any and all molecular-based laboratories with an emphasis on the clinical laboratory and clinical diagnosis. In addition, students will have the opportunity to acquire expertise in the pathology laboratory, research laboratory, forensics laboratory, biotechnology laboratory, and company based R&D laboratory. Students will have the opportunity to become proficient at clinical specimen processing for molecular diagnostics as well as non-clinical processing. Specific techniques will be emphasized and performed in the various laboratories.

CLSC 4014  Advanced Molecular Laboratory Practices
2.0 Semester Credit Hours
This is an advanced course designed to review basic principles and reinforce previous work and experiences. Students will review all course work, specific techniques, problem situations, and unique experiences acquired during the practicum portion of instruction. The advanced diagnostic experience acquired by the student will be correlated with clinical case studies, problems in biotechnology, problems in forensics, and unique research situations. An in-depth exploration of the problem solving process and strategies for resolving difficult cases is a main focus of the course. The students will be tested and will have the opportunity to prepare for the certification examination as a specialist in molecular biology.
CLSC 4020 Issues in Health Care
1.0–3.0 Semester Credit Hours
Special topics in health care and clinical laboratory science are offered and may vary.

CLSC 4033 Advanced Medical Microbiology
2.0 Semester 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. Students in this section will pay the instructional fee for the course. Texas residents and non-residents living in Texas pay applicable tuition and fees of UTHSCSA. The cost for non-Texas residents living outside of Texas is $165.50 per semester credit hour.

CLSC 4034 Advanced Molecular and Laboratory Diagnostics — Lab
2.0 Semester Credit Hours
The laboratory is offered in conjunction with CLSC 4036 as a senior-level course. Direct hands-on experience will be included in sample preparation, DNA purification, RNA purification, tissue culture, viral culture, electrophoresis, restriction enzyme manipulation, blotting technology, Southern/Northern/Western Blot, PCR, PT-PCR, LCR, NASBA, probe design, primer design, and advanced instrumentation. DNA sequencing, cloning, DNA fingerprinting, and protein purification and analysis will be included. Cases relevant to genetic disease, forensic analysis, and molecular-based diagnosis and design will be discussed.

CLSC 4035 Introduction to Molecular Diagnostics
1.5 Semester Credit Hours
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. Students in this section will pay the instructional fee for the course. Texas residents and non-residents living in Texas pay applicable tuition and fees of UTHSCSA. The cost for non-Texas residents living outside of Texas is $165.50 per semester credit hour. Lab fee: $30.

CLSC 4036 Advanced Molecular and Laboratory Diagnostics — Lecture
3.0 Semester Credit Hours
The course is offered as an undergraduate, senior-level course in the Department of Clinical Laboratory Science. The design is intended to give senior students an understanding of the use of advanced technology in the diagnosis, treatment, and monitoring of the disease process. Students will have the opportunity to acquire experience in clinical laboratory diagnostic design and detailed hands-on experience in the laboratory. The course will include molecular diagnostic techniques, amplification and micro-array technology, Southern/Northern/Western blotting, advanced clinical virology, tissue culture techniques, and advanced instrumentation. Students will participate in an analysis and presentation of clinical cases relevant to new and innovative laboratory technology.

CLSC 4037 Microbiology Practicum
4.0 Semester 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
10.0 Semester 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 4039 Selected Practicum Experience in Medical Microbiology
3.0–5.0 Semester Credit Hours
Permission from course director required to enroll
This course is for individuals who have completed an accredited CLT/MLT medical microbiology practicum. The course emphasizes the areas in medical microbiology in which the student lacks previous experience or requires updated proficiency. Credit hours are variable. Hours will be assigned based on the topics covered.

CLSC 4040 Human Genetics
1.0 Semester Credit Hour
Prerequisite: Admission to Cytogenetics Program or consent of instructor
An advanced course which provides the student an opportunity to study the cell cycle, oogenesis, spermatogenesis, Mendelian inheritance, polycystic inheritance, population genetics, medical genetics, clinical cytogenetics and basic molecular techniques. The course is self-paced requiring approximately 1 hour/week viewing slide, tape or computer presentations. Most slide presentations have study guides provided as an aid for the student to master the material.

CLSC 4041 Clinical Cytogenetics
4.0 Semester Credit Hours
Prerequisite: CLSC 4040 or consent of instructor
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.

CLSC 4042 Hematology for the Geneticist
1.0 Semester Credit Hour
Prerequisite: Concurrent enrollment in CLSC 4041 or consent of the instructor
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.
CLSC 4043  Cytogenetics Techniques  
2.5 Semester Credit Hours  
Prerequisite: Concurrent enrollment in CLSC 4041 or consent of the instructor  
An advanced laboratory course designed to cover all aspects of cytogenetic laboratory practice including specimen evaluation, culture initiation, culture maintenance, harvesting, slidemaking, 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. *Lab fee: $30. Microscope fee: $16.*  

CLSC 4044  Current Topics in Genetics  
1.0 Semester Credit Hour  
Prerequisite: CLSC 4041 or concurrent enrollment  
An advanced seminar course which 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 HSC and surrounding area. Each student will make a short presentation on a topic of interest selected with the aid of the coordinator.  

CLSC 4045  Clinical Cytogenetics Laboratory I  
6.0 Semester Credit Hours  
Prerequisites: CLSC 4041, CLSC 4043, and CLSC 4042  
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.  

CLSC 4046  Clinical Cytogenetics Laboratory II  
6.0 Semester Credit Hours  
Prerequisite: CLSC 4045 Clinical Cytogenetics Laboratory I  
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 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.  

CLSC 4047  Clinical Cytogenetics Laboratory III  
6.0 Semester Credit Hours  
Prerequisite: CLSC 4046  
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 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.  

CLSC 4048  Clinical Cytogenetics Laboratory IV  
6.0 Semester Credit Hours  
Prerequisite: CLSC 4047  
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 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.  

CLSC 4049  Cytogenetics Laboratory Practices  
1.5 Semester Credit Hours  
Prerequisite: CLSC 4048 or consent of instructor  
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.  

CLSC 4050  Research in Cytogenetics  
1.0 Semester Credit Hour  
Prerequisites: CLSC 4047 and consent of the Program Director and Instructor  
An advanced course which 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. May be repeated for credit.  

CLSC 4053  Advanced Hematology  
2.0 Semester 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  
2.0 Semester 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. Texas residents and non-residents living in Texas pay applicable tuition and fees of UTHSCSA. The cost for non-Texas residents living outside of Texas is $165.50 per semester credit hour.

CLSC 4055 Advanced Immunohematology
2.0 Semester 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. Students in this section will pay the instructional fee for the course. Texas residents and non-residents living in Texas pay applicable tuition and fees of UTHSCSA. The cost for non-Texas residents living outside of Texas is $165.50 per semester credit hour.

CLSC 4056 Selected Practicum Experience in Hematology
3.0–5.0 Semester Credit Hours
Permission from course director required to enroll
This course is for individuals who have completed an accredited CLT/MLT clinical hematology practicum. The course emphasizes the areas in clinical hematology in which the student lacks previous experience or requires updated proficiency. Credit hours are variable. Hours will be assigned based on the topics covered.

CLSC 4057 Hematology Practicum
4.0 Semester 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
6.0 Semester 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, 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
4.0 Semester 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
6.0 Semester 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 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 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 4069 Selected Practicum Experience in Immunohematology
3.0–5.0 Semester Credit Hours
Permission from course director required to enroll
This course is for individuals who have completed an accredited CLT/MLT immunohematology practicum. The course emphasizes the areas in immunohematology and serology in which the student lacks previous experience or requires updated proficiency. Credit hours are variable. Hours will be assigned based on the topics covered.

CLSC 4070 Immunology Practicum
2.0 Semester 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 perform routine testing of antigen/antibody reactions to help in the diagnosis of certain disease states.

CLSC 4083 Advanced Clinical Chemistry
3.0 Semester 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 immunochromatographic, chromatography, and electrophoresis 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. Students in this section will pay the instructional fee for the course. Texas residents and non-residents living in Texas pay applicable tuition and fees of UTHSCSA. The cost for non-Texas residents living outside of Texas is $165.50 per semester credit hour.

CLSC 4087 Chemistry Practicum
4.0 Semester Credit Hours
Under the supervision and direction of a clinical instructor in the hospital setting, the student is introduced to the delivery of health care as it relates to the chemistry diagnostic laboratory. The student has the opportunity to gain experience in toxicology, electrophoresis, immunochromatographic, urinalysis, and special chemistry procedures including neonatal intensive care testing. The student will be given the opportunity to operate modern, state-of-the-art clinical labora-
tory 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
6.0 Semester 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 which may include serum protein electrophoresis, lipoprotein electrophoresis, toxicology screens, immunochemical assays, 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 4089 Selected Practicum Experience in Clinical Chemistry
3.0–5.0 Semester Credit Hours
Permission from course director required to enroll
This course is for individuals who have completed an accredited CLT/MLT clinical chemistry practicum. The course emphasizes the areas in clinical chemistry in which the student lacks previous experience or requires updated proficiency. Credit hours are variable. Hours will be assigned based on the topics covered.

CLSC 4090 Management for Clinical Laboratory Sciences
3.0 Semester 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. Texas residents and non-Texas residents living in Texas pay applicable tuition and fees of UTHSCSA. The cost for out-of-state residents is $165.60 per semester Credit Hour.

CLSC 4091 Independent Study
1.0–12.0 Semester 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 4092 Management I
1.0 Semester Credit Hour
This course is designed to present the principles of communication skills and group dynamics. Topics in verbal communication concentrate on interviewing techniques. Writing of resumes and developing and designing presentations are included. Learning principles, objectives, and use of audiovisual aids are presented. Development and use of evaluation tools are covered.

CLSC 4093 Management II Techniques for Clinical Laboratory Sciences
2.0 Semester Credit Hours
Students will have the opportunity to become involved in a project or other activity that will allow application of course principles. Class topics will vary depending on the project assigned, but will generally include ethics, leadership styles, planning, financial analysis in the laboratory, laboratory information systems (data management, analysis, selection), research techniques and writing procedure manuals. Current issues in managed care are considered. Other timely topics in health care are 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. Texas residents and non-residents living in Texas pay applicable tuition and fees of UTHSCSA. The cost for non-Texas residents living outside of Texas is $165.50 per semester credit hour.

CLSC 4101 Honors CLS Course
2.5–5.0 Semester 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
1.0–5.0 Semester 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 5001 Basic Concepts in Immunohematology
2.0 Semester Credit Hours
Topics covered include the essential concepts of primary and secondary hemostasis, the application of principles of genetics and immunology to immunohematology. Selected areas of hematology pathology and the relationship to the transfusions service will be discussed.

CLSC 5002 Immunohematology I: The Donor
2.0 Semester Credit Hours
Topics in this course will include: (1) principles and applications for the preparation, storage, handling of blood components; (2) regulations and quality assurance for the laboratory and donor area; (3) donor qualifications and preparation for routine, autologous, directed, and hemapheresis as well as the principles and applications will be discussed; and (4) routine testing of donor units including testing for agents of infectious disease.
CLSC 5003 Immunohematology Practicum I  
4.0 Semester Credit Hours  
During this practicum the student will have the opportunity to gain experience in all aspects of blood procurement and preparation of components. Donor selection, serologic testing of units for infectious diseases, processing and component preparation as well as the quality assurance procedures and criteria will be covered. Experience in hemapheresis will be included.

CLSC 5004 Transfusion Medicine  
1.0 Semester Credit Hour  
Immune mediated and drug induced hemolytic anemias, leukemias, and other clinical conditions which require specialized workup; transfusion therapy and clinical management will be discussed in this course. Diagnosis, treatment and prevention on hemolytic disease of the newborn will be discussed. In addition the general indications for transfusion therapy, the benefits and adverse effects of component transfusion and special transfusion problems are included.

CLSC 5005 Seminar in Education and Management  
0.5 Semester Credit Hour  
The key concepts of effective management including planning, employee selection and orientation, productivity and performance evaluation will be covered. Students will also study the education theory and techniques necessary for teaching in the clinical environment and for small-group teaching. Lecturing in the undergraduate Clinical Laboratory Science program will be required.

CLSC 5007 Toxicology Practicum  
5.0 Semester Credit Hours  
One semester rotation through different types of toxicology laboratories including medical examiners, clinical, drug testing. Practicum will be supervised by faculty.

CLSC 5012 Immunohematology II: Human Blood Group Systems  
2.0 Semester Credit Hours  
Course topics will include discussion and application of genetic, immunologic and biochemical characteristics of the major blood group systems as well as high and low frequency and HTLA antigens. The relationship and significance of these systems to transfusion, transplantation, anthropological studies, and disease association will be covered. Special techniques and problem-solving methods for identification and resolution of typing discrepancies and alloantibody and autoantibody problems will be presented.

CLSC 5013 Immunohematology Practicum II  
8.5 Semester Credit Hours  
During this practicum the student will have the opportunity to gain experience in all areas/applications of compatibility testing and antibody identification. The use of special techniques for solving complicated immunohematologic problems and multiple antibodies, workup of suspected transfusion reaction, hemolytic disease of the newborn, and resolution of problems caused by autoantibodies will be included. Special transfusions practices for selected patient groups will be included.

CLSC 5014 Principles and Applications in Analytical Toxicology  
5.5 Semester 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; 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  
1.0 Semester Credit Hour  
Formal exchange of scientific information and ideas through presentations from recent scientific literature and from faculty and student research.

CLSC 5018 Special Topics in Medical/Forensic Toxicology  
4.0 Semester Credit Hours  
Course will concentrate on current knowledge of the various topics in the field of toxicology including natural toxins, drugs of abuse, psychotropic agents, industrial chemical disasters, and the principles of poison management. Other cross-discipline topics will be discussed including forensic serology. Some of the topics may involve some laboratory demonstrations. The use of case studies is an integral part of this course. Course will also cover topics on toxicology laboratory design and certification.

CLSC 5020 Topics in Applied Toxicology  
2.0 Semester Credit Hours  
This course is designed to complement courses CLSC 5014, 5018, and 5097. Under supervision of the program coordinator and toxicologists from various areas of the discipline, the student will apply her/his knowledge of toxicology and forensic science to solving clinical and forensic cases.

CLSC 5022 Immunohematology III: New Approaches  
0.5 Semester Credit Hour  
In this course students will have the opportunity to apply genetic, immunological, and biochemical principles to the study of HLA, platelet and granulocyte antigens. The relationship of these systems to transfusion, transplantation, disease association, paternity testing and family studies will be covered. Techniques and use of stem cells, DNA technology and their application to selected areas of transfusion medicine will be included.

CLSC 5023 Immunohematology Practicum III  
3.0 Semester Credit Hours  
During this practicum the student will have the opportunity to gain experience in specialized applications and areas associated with transfusion medicine including histocompatibility testing for paternity or family studies and for transplantation, cytogenetics, coagulation, and molecular biology.

CLSC 5036 Advanced Molecular and Laboratory Diagnostics — Lecture  
3.0 Semester Credit Hours  

CLSC 5037 Advanced Molecular and Laboratory Diagnostics — Lab  
2.0 Semester Credit Hours  
The course is offered as a graduate level course in the Master of Science Program in the Department of Clinical Laboratory Science. The design is intended to give students an in-depth understanding of the role of advanced technology in the diagnosis, treatment, and monitoring of the disease process. Students will have the opportunity to acquire detailed experience in molecular-based diagnostic design and extensive hands-on laboratory experience. The course will include molecular diagnostic techniques, amplification and micro-array technology, Southern/Northern/Western blotting, advanced clinical virology, tissue culture techniques, and advanced instrumentation. Students will have the opportunity to participate in an analysis of clinical cases relevant to the new and innovative technology, individual presentations, and written papers.
CLSC 5040  Laboratory Medicine  
3.0 Semester Credit Hours  
This course is offered to students in the Physician Assistant Studies Program at UTHSCSA. 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. The majority of the course is Web-based.

CLSC 5041  Laboratory Medicine Laboratory  
1.0 Semester 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 5090  Independent Study in Clinical Laboratory Sciences  
1.0–4.0 Semester 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. Credit to be arranged.

CLSC 6097  Research  
3.0 Semester Credit Hours  
Supervised research under direction of faculty.

CLSC 6098  Thesis  
3.0 Semester Credit Hours  
Prerequisite: Admission to candidacy for the Master of Science degree  
Instruction in the preparation of a thesis. Registration for at least one term is required of MS candidates.

INTD 4006  Professional Issues  
1.0 Semester Credit Hour  
Using a workshop format, this interdisciplinary course will provide students with an overview of ethical issues in health care professions. Topics to be discussed include responsibilities of the health care practitioner, life and death decisions, ethics issues in managed care, legal issues in several areas such as patient confidentiality, sexual harassment and informed consent, ethics in research and other critical issues related to health care practice. Problem cases will be used to stimulate discussion among students.

INTD 5064/OCCT 5023  Applied Statistics for Health Care Practitioners  
3.0 Semester Credit Hours  
This course focuses on the application of descriptive and inferential statistics in research studies in the health sciences. Students are provided the opportunity to gain a base of knowledge that will enable them to understand, interpret, and evaluate statistical results; work with a consultant statistician; and use statistical software to enter, analyze, and summarize data. Teaching methods include lecture, Web-supported technology, and problem-based learning groups.
DEAF EDUCATION AND HEARING SCIENCE

The Master of Deaf Education and Hearing Science program is offered jointly by the School of Allied Health Sciences and Sunshine Cottage School for Deaf Children. Sunshine Cottage serves as the primary teaching laboratory and physical facility for faculty, students, and staff for the program. Sunshine Cottage School for Deaf Children is an auditory-oral school whose mission is to teach children with hearing impairment to develop listening, language, and speech in order to become part of the hearing world and be academically competitive with their hearing peers. Sign language is not used nor taught; however, sign language is recognized as a second language if already used.

Students graduate as specialists in providing to children and their families training that enhances spoken communication and listening skills. Advances in hearing aid technology and surgical procedures such as the cochlear implant make the employment demand high for individuals with this preparation.

Master of Deaf Education and Hearing Science Program

The Master of Deaf Education and Hearing Science (MDEHS) program is designed to further the education of individuals with undergraduate degrees in education, deaf studies, communication disorders, and other related fields. The program prepares students for a career in the education of children with hearing loss through spoken language, using auditory-oral and auditory-verbal methods. Graduate-level coursework trains teachers to work as members of multi-professional teams to address the educational, social, and health needs of children who have hearing loss. The MDEHS program can be completed through full-time studies (4 semesters) or through a part-time program (7 semesters) to accommodate MDEHS students who are employed.

The program consists of 36 semester credit hours of course work that includes observations, seminars, demonstrations, research opportunities, field trips, and practicum. Practicum assignments are scheduled at Sunshine Cottage, UTHSCSA, and partnership schools and clinics in the San Antonio area. To accommodate working professionals, classes are offered in the evenings and during summers, with some classes using Web-supported instruction.

Students who successfully complete the course requirements must pass a comprehensive examination covering the major components of the program. A thesis is not required; however, students are required to acquire competency in reading and critically reviewing professional and research literature, and to develop awareness of statistical and research design concepts for educational and clinical studies.

The MDEHS program is accredited by the Council on Deaf Education, Gallaudet University, 800 Florida Ave. NW, Washington, D.C. 20002-3695, phone (202) 651-5525, fax (202) 651-5749.

Philosophy

The MDEHS 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 sometime during the educational years, it is desirable that a hearing impaired child attend school with her/his hearing peers;
- The decision as to when is the prime time for a hearing impaired student to be programmed with hearing peers is a joint decision with parents, teachers of the hearing impaired, administrators, teachers of the normally hearing, and specialists from related disciplines jointly involved;
- Teachers with elementary or special education certification and students from such backgrounds as speech pathology, nursing, and other 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 hearing impaired child 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 hearing impaired child but also the normally hearing assigned to the group.

Application and Admission

Application for admission to Master of Deaf Education and Hearing Science program may be completed at http://www.applytexas.org/adappc/commonapp.WBN. Detailed information about application and admission is available in the School of Allied Health Sciences Applicant Viewbook, available from the Allied Health Welcome Center at (866) 802-6288 (toll-free) or (210) 567-8744, and on-line at http://studentservices.uthscsa.edu/publications/allied.html. Completed application, application fee, official transcripts, and supporting documents must be submitted to the Registrar between September 1 and March 15 for admission the following fall semester.
All required admissions information and documents must be submitted to the Office of the Registrar 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. It may be possible to begin studies during other terms, depending on a student’s preparation; contact the Program Director for consideration.

**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
- Educational attainment of the applicant’s family
- 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
- Socio-economic history (educationally and/or economically disadvantaged)
- Positions of leadership held
- Public/community service or “volunteer” related activities
- “Volunteer” activities in educational related areas
- Prior experience in providing educational related services
- Extra-curricular activities
- Success in overcoming adverse personal, family, or “life” conditions/experiences
- 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
- Applicant’s 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
- Texas resident status, or permanent Texas resident alien
- Personal disability condition

**Admission Requirements**

To be admitted to the MDEHS 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 a degree in elementary, special or deaf education, deaf studies, communication disorders, nursing, or a related field. Students must have taken the Texas Higher Education Assessment (THEA), complete 50 hours of classroom observation, and complete 25 hours of field experience with children under the age of 10. Depending on the applicant’s background, collateral coursework in Curriculum and Instruction from another college or university may be required.

**General Policies and Information**

**Advancement, Probation, and Dismissal**

Decisions about a student’s status in the program are made by the program’s Committee on Allied Health Studies (CAHS). The CAHS regularly reviews students’ performance and progress and may decide to continue a student in the program, place the student on probation, or dismiss the student from the program.

**Advancement.** Advancement in the program depends on three requirements:

- Maintenance of a minimum grade point average (GPA) of 3.0 for all courses taken while enrolled in the program
- Satisfactory rate of progress toward the degree, as determined by the CAHS
- Satisfactory progress in meeting conditions imposed at the time of admission, in applicable

**Probation.** If a student’s cumulative GPA falls below 3.0, the student is placed on probation by the CAHS, and the student is informed that continuation in the program is in jeopardy. A student remains on probation as long as the cumulative GPA is below 3.0. While on probation, a student must maintain a B average in all courses or be considered for dismissal.

**Dismissal.** A student may be dismissed from the program for any of the reasons below:

- Failure to maintain a B average while on probation
- Unsatisfactory progress toward correcting deficiencies
- Violation of provisions in the “Guide for Professional Conduct” (Allied Health Sciences introductory section)
- Violation of professional ethics

**Attendance**

Attendance at all scheduled classes, clinical experiences, and practicums is expected. Excused absences may be granted in such cases as illness or personal emergency. Verification of the reason for an absence may be required. It is the student’s responsibility to notify the faculty member if an absence occurs and to arrange for make-up work, if necessary. Excessive absences may be cause for reductions in course grades.
Background Checks
In addition to the background check completed before admission, students are subject to background checks that may be required by clinical or practicum sites, such as Sunshine Cottage for Deaf Children. Students are required to pay the cost of the background check, if not paid by the practicum site.

Computers
Students are required to use personal computers throughout the MDEHS program and should be competent in basic computer skills to complete assignments; communicate by e-mail with other students, staff, and faculty; manage assigned clients; conduct library and Internet research; participate in Web-based portions of courses; etc. Students will find a computer indispensable for their study, research, and communication. Numerous computers for student use are available in the UTHSCSA Library and the Allied Health/Research Building, but access may be limited due to high use. It is strongly recommended that MDEHS students acquire a computer for use at home.

Grading
Students are expected to achieve at a level suitable for graduate work. Semester credit hours are earned in the MDEHS program only for grades of A, B, C, and S. However, all grades, including D and F, are used in computing the grade point average (GPA). Grades for courses taken a satisfy a contingency or condition of admission, or those transferred for credit, are not included in computing the GPA. Grade points are assigned as follows:

- A = 4 points (above average graduate work)
- B = 3 points (average graduate work)
- C = 2 points (below average graduate work)
- D = 1 point (failing graduate work)
- F = 0 points (failing graduate work)

Grades of D or F are not acceptable in the program, and courses in which these grades are earned must be repeated. When a course is repeated, the new grade earned will replace the original grade and will be used for re-computation of the cumulative GPA. Grades of S or U (Satisfactory or Unsatisfactory) are not included in computing the GPA.

Professional Attire, Demeanor, and Conduct
Students must dress at all times in a manner consistent with a professional image while on campus and at practicum sites. Appropriate attire for practicums or other clinical/educational settings may vary, depending on local customs and expectations. It is the student’s responsibility to inquire about dress and demeanor expectations and to comply with them.

Program Costs
Total, full-time program costs for Texas resident tuition and fees, parking permits, health and liability insurance, etc., are approximately $7,500. In addition, costs for other expenses, such as textbooks, personal computer, course manuals, and supplies are approximately $3,500. Costs for part-time students will vary, depending on semester course load. Non-resident students are subject to additional costs, which may be found under “Financial Information” in this Catalog.

Remediation
It is the goal of the MDEHS program and faculty to provide every student with the opportunity to succeed. When a student demonstrates academic or professional deficiencies, it is the student’s responsibility to correct the deficiencies before they lead to unrecoverable failure in the program.

Opportunities for remediation may be available on an individual student basis, depending on the requirements of specific courses. Students who believe that they may be in danger of failing a course should discuss their concerns with the course instructor. Students experiencing difficulties are encouraged to seek assistance or counseling from UTHSCSA Student Services.

In most cases, remediation of specific deficiencies may be handled on an informal basis between the student and the course instructor. In the case of multiple or complex deficiencies, a more formal procedure may be used.

Scholarships
Sunshine Cottage School for Deaf Children offers competitive scholarships annually from donor money. Both full-time and part-time students are eligible to apply for partial tuition scholarships. After the application process is reviewed, recipients are selected by the department and approved by the School of Allied Health Sciences Scholarship Committee. Information about applying for scholarships is available from the MDEHS Office (210-832-2429; gradstudies@sunshinecottage.org) or the Office of the Dean.

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). All students who enter the program already holding teacher certification must pass the Texas State Certification Examination: 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 (TEExES). The MDEHS program is nationally accredited through the Council on the Education of the Deaf, (C.E.D.). It is highly recommended that students apply for certification through CED as well.

Time to Degree
The usual time to degree for the MDEHS program is 4 semesters for the full-time option, or 7 semesters for the
part-time option. In unusual cases, e.g., Leave of Absence, students may require a longer time period to complete the degree. However, all degree requirements including the Comprehensive Examination must be completed within 6 years after initial entry into the program, and under the Catalog in effect at the time of initial entry. An extension of study beyond 6 years may be authorized by the Committee on Allied Health Studies (CAHS) only with demonstration of justifiable cause.

**UTHSCSA/UTSA Cooperative Agreement**

Through a cooperative agreement with The University of Texas at San Antonio (UTSA), students may be admitted to the DEHS program and then take preparatory/background coursework at UTSA at the undergraduate or graduate level. UTSA courses may include: Basic Statistics, Principles of Learning and Classroom Management, Introduction to Exceptionality, Language and Cognitive Development (and Dysfunction), Early Literacy Learning EC-4 (U)/Reading and Writing Development in Early Childhood (G), and Reading Comprehension EC-4 (U)/Integrating Reading and the Language Arts (G). Contact the Program Director for further information.

**Master of Deaf Education and Hearing Sciences Curriculum**

**Full-time Option**

**First Year**

**Summer Semester**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>DEHS 5001</td>
<td>Foundations of Education for the Deaf</td>
<td>2.5</td>
</tr>
<tr>
<td>DEHS 5005</td>
<td>Factors in Child Language Acquisition</td>
<td>2.5</td>
</tr>
<tr>
<td>DEHS 5007</td>
<td>Introduction to Audiology</td>
<td>2.0</td>
</tr>
<tr>
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<td><strong>Semester Total</strong></td>
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</table>

**Fall Semester**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
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<tbody>
<tr>
<td>DEHS 5003</td>
<td>Speech Mechanisms-Anatomy, Physiology, Acoustics</td>
<td>2.5</td>
</tr>
<tr>
<td>DEHS 5011</td>
<td>Language Development and Hearing Ability</td>
<td>4.0</td>
</tr>
<tr>
<td>INTD 5064</td>
<td>Applied Statistics for Health Care Practitioners</td>
<td>3.0</td>
</tr>
<tr>
<td>DEHS 6010</td>
<td>Mainstream Services for Children with Hearing Loss</td>
<td>1.5</td>
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<tr>
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**Spring Semester**

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<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
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<tbody>
<tr>
<td>DEHS 6002</td>
<td>Comprehensive Assessment, Counseling and Management</td>
<td>2.5</td>
</tr>
<tr>
<td>DEHS 6004</td>
<td>Curriculum Modifications for Children with Hearing Loss</td>
<td>2.5</td>
</tr>
<tr>
<td>DEHS 6008</td>
<td>Speech for Hearing Impaired Students</td>
<td>2.5</td>
</tr>
<tr>
<td>DEHS 6006</td>
<td>Auditory-Verbal Principles &amp; Practices in Early Intervention</td>
<td>2.5</td>
</tr>
<tr>
<td>DEHS 5021</td>
<td>Teaching/Management Apprenticeship I</td>
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**Second Year**

**Summer Semester**

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<th>Course Code</th>
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<tbody>
<tr>
<td>DEHS 5009</td>
<td>Introduction to Sign (ASL) and Signed English</td>
<td>2.5</td>
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<tr>
<td>DEHS 6022</td>
<td>Teaching/Management Apprenticeship II</td>
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<td>DEHS 6099</td>
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**Part-time Option**

**First Year**

**Summer Semester**

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<tr>
<td>DEHS 5005</td>
<td>Factors in Child Language Acquisition</td>
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<td>DEHS 5007</td>
<td>Introduction to Audiology</td>
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**Fall Semester**

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<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
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<tbody>
<tr>
<td>DEHS 5003</td>
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<table>
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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>INTD 5064</td>
<td>Applied Statistics for Health Care Practitioners</td>
<td>3.0</td>
</tr>
<tr>
<td>DEHS 6010</td>
<td>Mainstream Services for Children with Hearing Loss</td>
<td>1.5</td>
</tr>
<tr>
<td></td>
<td><strong>Semester Total</strong></td>
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**Spring Semester**

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<th>Course Code</th>
<th>Course Title</th>
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</thead>
<tbody>
<tr>
<td>DEHS 6004</td>
<td>Curriculum Modifications for Children</td>
<td>2.5</td>
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<tr>
<td>DEHS 6008</td>
<td>Speech for Hearing Impaired Students</td>
<td>2.5</td>
</tr>
</tbody>
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<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>DEHS 5021</td>
<td>Teaching/Management Apprenticeship I</td>
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<tr>
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**Second Year**

**Summer Semester**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>DEHS 5001</td>
<td>Foundations of Education for the Deaf</td>
<td>2.5</td>
</tr>
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<td>DEHS 5009</td>
<td>Introduction to Sign (ASL) and Signed English</td>
<td>2.5</td>
</tr>
<tr>
<td>DEHS 5021</td>
<td>Teaching/Management Apprenticeship I</td>
<td>2.0</td>
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**Fall Semester**

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<th>Course Title</th>
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<tbody>
<tr>
<td>INTD 5064</td>
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<td>DEHS 6010</td>
<td>Mainstream Services for Children with Hearing Loss</td>
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<tr>
<th>Course Code</th>
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</thead>
<tbody>
<tr>
<td>DEHS 6002</td>
<td>Comprehensive Assessment, Counseling and Management</td>
<td>2.5</td>
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<tr>
<td>DEHS 6006</td>
<td>Auditory-Verbal Principles &amp; Practices in Early Intervention</td>
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**Spring Semester**

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<th>Course Title</th>
<th>Credit Hours</th>
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<tr>
<td>DEHS 6022</td>
<td>Teaching/Management Apprenticeship II</td>
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<tr>
<td>DEHS 6099</td>
<td>Comprehensive Examination</td>
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<td><strong>Semester Total</strong></td>
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<tr>
<td></td>
<td><strong>Program Total</strong></td>
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**Third Year**

**Summer Semester**

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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
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</thead>
<tbody>
<tr>
<td>DEHS 5001</td>
<td>Foundations of Education for the Deaf</td>
<td>2.5</td>
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<tr>
<td></td>
<td><strong>2.5 Semester Credit Hours</strong></td>
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<table>
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<th>Course Title</th>
<th>Credit Hours</th>
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</thead>
<tbody>
<tr>
<td>DEHS 5009</td>
<td>Introduction to Sign (ASL) and Signed English</td>
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<tr>
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<tr>
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</thead>
<tbody>
<tr>
<td>DEHS 6022</td>
<td>Teaching/Management Apprenticeship II</td>
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</tr>
<tr>
<td></td>
<td><strong>Semester Total</strong></td>
<td><strong>3.5</strong></td>
</tr>
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</table>

**Course Descriptions**

DEHS 5001   Foundations of Education for the Deaf  
2.5 Semester 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, provisions for multicultural populations.

DEHS 5003 Speech Mechanisms - Anatomy, Physiology, Acoustics
2.5 Semester 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 Semester 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
2.0 Semester Credit Hours

DEHS 5009 Introduction to Sign (ASL and Signed English)
2.5 Semester Credit Hours

DEHS 5011 Language Development and Hearing Ability
4.0 Semester 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 I
2.0 Semester 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.

DEHS 5090 Independent Study
0.5–4.0 Semester 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 5002 Comprehensive Assessment, Counseling and Management
2.5 Semester Credit Hours
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. Newborn screening included. Crisis periods identified and coping mechanisms evaluated. Role of classroom teacher and health professional in providing support to the family. A multi-professional team approach to long-term management for the hearing-impaired.

DEHS 6004 Curriculum Modifications for Children with Hearing Loss
2.5 Semester 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 context 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 Auditory-Verbal Principles & Practices in Early Intervention
2.5 Semester 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 Students
2.5 Semester 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 6010 Mainstream Services for Children with Hearing Loss
1.5 Semester Credit Hours
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 II
3.5 Semester Credit Hours
Continuation of Teaching/Management Apprenticeship I. Students develop a comprehensive portfolio of their experiences and abilities. Outcomes of their knowledge and skills gained in the program are emphasized.
DEHS 6099  Comprehensive Examination
0 Semester Credit Hours
The comprehensive examination is required prior to graduation. The foundation examination, which incorporates all critical elements of the curriculum, tests for mastery of knowledge as well as professional skills.

INTD 5064  Applied Statistics for Health Care Practitioners
3.0 Semester Credit Hours
This course focuses on the application of descriptive and inferential statistics in research studies in the health sciences and health professions. Students are provided the opportunity to gain a base of knowledge that will enable them to understand, interpret, and evaluate statistical results; work with a consultant statistician; and use statistical software to enter, analyze, and summarize data. Teaching methods include lecture, Web-supported technology, and problem-based learning groups.
DENTAL HYGIENE

The dental hygienist works as an integral member of a professional health care delivery team, functioning under the general supervision of a dentist. The primary specialties of the practitioner are oral health promotion and disease prevention for diverse client populations. Typical duties include evaluating and charting oral disease and health conditions, planning dental hygiene treatment, removing deposits from the teeth, taking and processing dental radiographs, taking impressions, providing nutritional counseling, and applying preventive agents to the teeth.

Dental hygienists are employed by general dentists or specialists in private dental practices and clinics, hospitals, public health, research, public schools, business and industry, civil service, and the armed forces. Individuals considering a career in dental hygiene should have a strong commitment to working with diverse groups of people to meet their oral health needs. Further, they should be dedicated to delivering competent and compassionate health care. The ability to communicate effectively is essential to a successful and rewarding career in this profession.

Dental Hygiene is a licensed profession, requiring successful completion of the National Board Examination, the Western Regional Examining Board (WREB), and a state Jurisprudence Exam. The National Board Examination, given during the spring semester of the second year, is a comprehensive written examination covering dental and dental hygiene sciences, theoretical aspects of patient care, and principles of dental hygiene therapy. The WREB is offered immediately before graduation and requires a practical demonstration of clinical competence. A Texas license to practice dental hygiene is granted upon successful completion of the WREB, the National Board Examination, the Texas Jurisprudence Exam, and payment of appropriate fees to the State Board of Dental Examiners.

The Bachelor of Science in Dental Hygiene program is accredited by the American Dental Association (ADA) Commission on Dental Accreditation (CODA), 211 E. Chicago Avenue, Chicago, Illinois 60611; phone (312) 440-2719. The last site evaluation was conducted in 2005 and the program was granted a status of APPROVAL without reporting requirements.

Program Descriptions

The Department of Dental Hygiene offers a bachelor’s degree (both entry-level and degree completion program) and a master’s degree program that prepare dental hygienists for a variety of career opportunities. The Bachelor of Science programs prepare the graduate to become a licensed registered dental hygienist and work as part of a professional health care delivery team. The program requires the completion of Texas Core Curriculum and program prerequisite courses before entering the dental hygiene major. Graduates of the entry-level bachelor’s degree program are eligible to take the National Board Examination, the Western Regional Examining Board, and the Texas state Jurisprudence Exam for eligibility to practice.

Entry-Level Bachelor of Science in Dental Hygiene Program

The entry-level bachelor’s degree consists of a minimum of 123 semester credit hours, including 60 semester credit hours of core curriculum and program prerequisite courses and 63 semester credit hours of dental hygiene courses taken over two academic years of full-time study. Core curriculum and program prerequisite courses must be completed before entry into the program. Courses in the program include basic, dental, and social sciences; clinical theory and practice; and community experience. The curriculum combines classroom and laboratory instruction with clinical experience to develop student skills in comprehensive dental hygiene care.

Bachelor of Science in Dental Hygiene Degree Completion Program

The Bachelor of Science Degree Completion Program is designed to allow a registered Dental Hygienist (RDH) who has completed a certificate or associate’s degree program in dental hygiene that is accredited by the Commission on Dental Accreditation (CODA), the opportunity to earn a baccalaureate degree in the field. Dental hygienists with baccalaureate degrees may be employed in community college or university settings as teachers, public health departments or other health care facilities, oral health care businesses, and other similar job opportunities. Salaries vary, depending on the career choice.

Coursework for the degree completion program includes the arts, humanities, basic and behavioral sciences, and the advanced professional curriculum. Emphasis is on the basic principles of problem solving and decision-making, critical thinking, communication skills, and ethical behavior with a particular focus on lifelong learning skills that can be applied to multiple roles and career settings.

The degree completion program consists of a minimum of 123 semester credit hours, including:

- 42 semester credit hours of Texas core curriculum courses
- at least 51 semester credit hours of entry-level dental hygiene courses, and
- 30 semester credit hours of advanced dental hygiene courses offered at UTHSCSA (for Registered Dental Hygienists who are graduates of other entry-level dental hygiene programs). Bachelor’s degree completion students who are graduates of the entry-level certificate program at UTHSCSA (no longer offered) must complete at least 9.0 semester credit hours of advanced dental hygiene coursework, because they will have fulfilled the entry-level dental hygiene course requirement in their UTHSCSA certificate program.
Master of Science in Dental Hygiene Degree Program

The Master of Science in Dental Hygiene degree program prepares registered dental hygienists who have earned a bachelor's degree for advanced education in dental hygiene teaching, administration, research, and other related areas. This program requires 36 semester credit hours of graduate work, including a research-based thesis.

The Master of Science degree builds on a baccalaureate degree in dental hygiene or a related field to develop professionals with expertise in a specialized area of dental hygiene. Through academic courses, independent study, research and practical experience, graduate students are prepared to meet the demands of an evolving health care environment. The primary goal of graduate education in dental hygiene is to prepare professionals to assume leadership roles in clinical, educational, research, political, administrative, and other health care delivery agencies.

Graduate education is delivered within a multidisciplinary framework through the School of Allied Health Sciences, the Dental School, and the Graduate School of Biomedical Sciences. Graduates are expected to develop expertise in conducting research related to dental hygiene, health care delivery, health promotion, or other relevant areas. The master's degree also forms a foundation for future doctoral study.

Application and Admission

Application for admission to Dental Hygiene degree programs may be completed at https://www.applytexas.org/adappc/commonapp.WBX. Detailed information about application and admission is available in the School of Allied Health Sciences Applicant Viewbook, available from the Allied Health Welcome Center at (866) 802-6288 (toll-free) or (210) 567-8744, and online at http://studentservices.uthscsa.edu/publications/allied.html. Completed application, application fee, official transcripts, and supporting documents must be submitted to the Registrar by February 1 for fall semester enrollment. Transcripts for prerequisite courses completed after that date must be submitted to the Registrar by July 1.

Admission Factors

In addition to the academic admission factors described below, the following non-academic factor are considered when selecting students for admission to all Dental Hygiene programs:

- Bilingual ability
- Hometown or county of residence that has been designated a medically underserved and/or health professions shortage area, with particular emphasis on South Texas
- Employment history, especially as it occurred simultaneously with undergraduate academic preparation
- Public/community service in volunteer-related areas
- Awards and honors
- Experience in providing health care-related services, e.g., prior military training and experience, other health related fields, dental assisting experience
- Graduation from another accredited health care-related curriculum
- References or recommendations
- Race/ethnicity
- Knowledge of and preparation to enter the profession of dentistry gained through observing or volunteering in a dental practice
- Communication skills
- Future professional goals
- Previously selected as an alternate for UTHSCSA dental hygiene program

Entry-Level Bachelor of Science in Dental Hygiene Program

A maximum of 30 qualified students are admitted to the bachelor of science degree programs. Admission requirements for the entry-level bachelor's degree program include 42 semester credit hours of Texas core curriculum requirements (see UTHSCSA Core Curriculum in this Catalog) and 36 semester credit hours of program prerequisites (listed below). A total of 60 semester credit hours of core curriculum and program prerequisites must be completed before entry into the program. Note that courses that satisfy program prerequisites may also satisfy core curriculum requirements. These courses must be completed with a grade of C or better. Applicants are encouraged to seek advisement from their college counselors or the Allied Health Welcome Center at (866) 802-6288 (toll-free) or (210) 567-8569, or AHwelcome@uthscsa.edu.

Program Prerequisites: In addition to the Texas core curriculum requirements (see UTHSCSA Core Curriculum in this Catalog), the following program prerequisites must be completed:

<table>
<thead>
<tr>
<th>Credit Hours</th>
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</thead>
<tbody>
<tr>
<td>Course listed above must be completed by end of fall semester the year before anticipated enrollment in the program.</td>
</tr>
</tbody>
</table>

Anatomy, with laboratory; or Anatomy and Physiology I, with laboratory 4.0
English Composition 3.0
Introductory Chemistry, with laboratory 4.0
Microbiology, with laboratory 4.0
Physiology, with laboratory; or Anatomy and Physiology II, with laboratory 4.0
Computer Applications, or equivalent 3.0
Nutrition 3.0
Psychology 3.0
Sociology 3.0
Statistics 3.0
Elective(s) 2.0

Courses listed above must be completed by July 1 for anticipated fall enrollment.

Program Prerequisite Total 36.0
Bachelor of Science in Dental Hygiene Degree Completion Program

Twelve students may be admitted to the bachelor’s degree completion program each year. Applications are accepted at any time. Applications and official transcripts should be submitted to the Registrar by June 1 for fall entry, and by October 1 for spring entry.

Information about application and admission to the bachelor’s degree completion program is detailed in the Applicant Viewbook of the School of Allied Health Sciences. All applicants are required to complete the Texas core curriculum courses (see “UTHSCSA Core Curriculum” in this Catalog) before entering the program. Admission requirements include:

- Graduation from an ADA/CODA-accredited dental hygiene program in the U.S. or Canada; applicants who have completed at least one year of an accredited program may apply before graduation, but must be scheduled to graduate before beginning the program of study and meet all prerequisite requirements.
- Grade point average (GPA) of at least 2.5 for all college courses taken
- Dental hygiene GPA of at least 2.5 in the entry-level program

In addition to Texas core curriculum requirements, noted above, and completion of an accredited dental hygiene program, the following prerequisites must be completed for admission:

<table>
<thead>
<tr>
<th>Course</th>
<th>GPA</th>
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<tbody>
<tr>
<td>Computer Applications, or equivalent</td>
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<tr>
<td>Statistics</td>
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Master of Science in Dental Hygiene Degree Program

Information about admission and application to the Master of Science in Dental Hygiene program is detailed in the Applicant Viewbook of the School of Allied Health Sciences. Admission requirements include:

- Bachelor’s degree from a regionally accredited college or university, or proof of equivalent degree and training in a foreign country
- Grade point average of at least 3.0 in bachelor’s degree
- Graduation from an ADA/CODA-accredited dental hygiene program in the U.S. or Canada
- Successful completion of the Dental Hygiene National Board Examination
- Current licensure as a Registered Dental Hygienist from any state in the U.S. or Canada
- Graduate Record Examination with a minimum score of 1000 (combined Verbal and Quantitative subtests), or a scaled score of 400 on the Miller Analogies Test; tests must have been taken within 5 years of admission
- Three completed recommendation forms available at http://studentservices.uthscsa.edu/Publications/allied.htm
- Personal interview with representatives of the graduate program may be required.

Applications should be submitted to the Registrar by June 1 for the fall semester enrollment and October 1 for spring semester enrollment. Admission is offered through the Graduate School of Biomedical Science’s Dental Hygiene Committee on Graduate Studies (COGS). Four to six students may be admitted each year.

General Policies and Information

Academic Advising

The department chair and course directors serve as student advisors. Advisors have the role of assisting students to solve problems and/or find 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.

Advancement, Probation, and Dismissal

A satisfactory rate of progress toward the degree is determined by the Committee on Allied Health Studies (CAHS) for the bachelor’s degree, or the Committee on Graduate Studies (COGS) for the master’s degree, according to the following standards. Students may be suspended, dismissed, and/or refused readmission at any time if circumstances of an ethical, legal, moral, health, social, psychomotor skill development, or academic nature are considered to justify such an action.

Performance Review: Each student’s performance is reviewed at the middle and end of every term by the CAHS/COGS. At midterm the CAHS/COGS determines whether the student is progressing satisfactorily or whether a warning letter from the chair is indicated. Warning letters specify each course in which the student is performing unsatisfactorily and require that the student meet with the course director to assist in remediation strategies. Students are responsible for arranging instructor counseling and assistance in remedying any academic deficiencies.

Promotion Recommendations: At semester’s end, the CAHS/COGS determines the student’s promotion status. The CAHS/COGS evaluates other aspects of the student’s performance: (1) course grade(s), (2) attendance record, (3) professional behaviors, (4) and psychomotor skill development. The CAHS/COGS also may assess extenuating circumstances that might have affected student progress on an individual basis. Recommendations are forwarded to the department chair for final approval. A student performing at an unsatisfactory level will receive written notification of her/his status from the department chair.

The policies below apply to students in the bachelor’s degree programs (entry-level and degree completion). Students in the Master of Science degree program follow policies...
of the Graduate School of Biomedical Sciences, found in this Catalog.

Unconditional Advancement – A student may be considered for Unconditional Advancement if the student:

- Achieves a minimum grade point average of 2.0 each semester,
- Successfully completes all prescribed courses and semester requirements, and
- Earns a satisfactory grade in each course taken.

In addition the CAHS will consider all areas listed above under Promotion Recommendations.

Probationary Advancement – A student may be considered for Probationary Advancement if the student:

- Withdraws from a prescribed course with the approval of the department chair but meets all other conditions for Unconditional Advancement,
- Receives an unsatisfactory grade in a single course; or
- Receives an I (Incomplete) grade in any course(s).

A student who receives an unsatisfactory grade in any course may be required to repeat all or part of the academic year. When repeating any portion of the academic year the student must earn a satisfactory grade in each course or be subject to dismissal from the program.

Dismissal – Dismissal from the program may be recommended if a student receives an unsatisfactory grade(s) in:

- Two or more courses in one semester
- A course being repeated or remediated,
- Any course taken while repeating any portion of the academic year,
- Any course taken while on probation, or
- Any course taken while in a part-time status.

In addition, the CAHS will consider all areas listed above under Promotion Recommendations. The CAHS reserves the right to make alternate recommendations as deemed appropriate.

Appeal Procedures
Student appeals and grievances are handled through established policies and procedures for the School of Allied Health Sciences, outlined in School of Allied Health Sciences section of this Catalog.

Attendance
Because of the nature and complexity of the dental hygiene programs, prompt attendance is expected at all scheduled classes, laboratories, and clinic sessions. Other attendance requirements for regularly scheduled classes, laboratories, and clinic sessions are established by the instructor for that particular portion of the curriculum. The policy regarding attendance for each course is outlined in the course outline/syllabus.

Unexcused absences may be considered sufficient cause for failure. Excused absences may be granted by the course 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. The student is responsible for arranging with the course director to make up missed work.

Auditing Courses
Students who have transferred courses from other accredited institutions for credit in Dental Hygiene programs or those who successfully pass course challenge examinations may elect to audit these same courses while enrolled in the curriculum, to assure retention of those concepts/skills. Students who elect to or who are required to audit any course are expected to be present at 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. The symbol AU will be recorded on the student’s official transcript on completion of the course, provided that attendance and other requirements have been met.

Computer Requirement
Students accepted into the Dental Hygiene program are expected to have basic computer skills including the ability to use e-mail, the Internet, and word processing software. All students are required to buy a laptop computer from UTHSCSA’s computer store when entering the program. This computer will be formatted with program specifications that allow access to digital radiography and patient records, as well as online learning materials. The approximate cost of the computer will be $2500, including all software and memory requirements. In addition, high-speed Internet access is strongly recommended.

Grades
Courses may be graded using letter grades, Satisfactory/ Unsatisfactory, Pass/Fail, or Incomplete. In the bachelor’s degree programs (entry-level and degree completion), letter grades of A, B, C, S, and Pass are considered satisfactory in all courses. The grade of C, S, or Pass is the minimum acceptable grade for all courses. Grades of D, F, U, or Fail are considered unsatisfactory grades in all courses. Students in the Master of Science degree program follow grading policies of the Graduate School of Biomedical Sciences, found in this Catalog.

In computing the grade point average, grade points are assigned: A = 4 points, B = 3 points, C = 2 points, D = 1 point, and F = 0 points. Grades of S/U or Pass/Fail are not computed into the grade point average.
Examination scores and course grades are released in a secure manner only.

Incomplete Grades: A grade of I (Incomplete) is recorded for a student who has not completed class, laboratory, or clinical requirements by the conclusion of the course. Incomplete work must be made up within the time specified by the Committee on Allied Health Studies or Committee on Graduate Studies, or the I will be replaced with a grade of F, resulting in the repetition of the course or dismissal from the program.

Graduation Requirements
The Bachelor of Science in Dental Hygiene and the Master of Science in Dental Hygiene are awarded by the University of Texas Board of Regents on the satisfactory completion of the prescribed academic programs, recommendation of the Committee on Allied Health Studies for the bachelor’s degree, or the Committee on Graduate Studies for the master’s degree, approval by the School of Allied Health Sciences Faculty Council, and certification of the candidate by the dean and president to the Board of Regents.

A candidate for graduation must have completed all prescribed courses at a satisfactory level (see Grades) and earned a cumulative grade point average of 2.0 in the bachelor’s degree program or 3.0 in the master’s degree program. Completion of all courses with satisfactory grades does not necessarily assure candidates a recommendation for graduation. The School of Allied Health Sciences Faculty Council may refuse to recommend for graduation any student who has not:

- Met all financial indebtedness to UTHSCSA;
- Independently completed all her/his work in the school’s facilities; or
- Exhibited those intellectual, ethical, and behavioral qualities necessary for a career as a dental hygiene professional.

Diplomas are awarded in formal public ceremonies held by UTHSCSA at the end of spring semester.

Honors and Awards
Students in the bachelor’s degree programs may be eligible for various honors or awards based on academic, clinical, and professional abilities.

Dean’s List: Students who are enrolled full-time and earn a semester’s grade point average (GPA) of 3.5 or greater in all course work taken that semester will be eligible for the Dean’s List.

Honors: Students who earn a cumulative GPA of 3.50-3.74 in the bachelor’s degree program will graduate Magna Cum Laude, and those with a cumulative GPA of 3.75 to 4.0 will graduate Summa Cum Laude.

Sigma Phi Alpha: Students who demonstrate excellence in scholarship and professional leadership potential may be selected for the national dental hygiene honor society Sigma Phi Alpha. The faculty select honorees from the top 10% of the class, determined by cumulative GPA.

Additional Awards: Individual program awards are presented at graduation. A description of these awards is provided to students during orientation.

International Applicants
Guidelines for international applicants are provided under International Applicants in the School of Allied Health Sciences section of this Catalog.

Leave of Absence – Bachelor’s Degree Program
A student requesting a Leave of Absence (LOA) must meet with the department chair before submitting a written request to the Committee on Allied Health Studies (CAHS), for bachelor’s degree students, or the Committee on Graduate Studies (COGS), for master’s degree students, explaining the reasons for the request. The department chair may grant a LOA for a period not to exceed one year upon the recommendation of the CAHS/COGS.

If insufficient reason is found to grant a LOA, the student will be notified in writing by the department chair.

If the LOA prevents completion of the semester or academic year, the student may be required to repeat the entire semester or academic year and earn a satisfactory grade in all courses. The grade I is recorded for each course that has not been completed, and the student is required to complete these courses under conditions specified by the CAHS/COGS.

Students returning from a LOA are readmitted on a space-available basis. Students granted a LOA must complete a Student Clearance Form, available from the department office. Transcripts will not be released without completing the clearance process, which should be accomplished within 10 days after being granted the LOA.

Professional Behaviors in Class
Students should display appropriate professional behaviors while attending classes, laboratories, or clinic sessions:

- Respect for the instructor or guest speaker by attending class on time. If the student is 15 minutes late to any class, it is considered an absence.
- Refrain from talking to classmates while class is in session.
- Refrain from eating inside the classroom.
- Remain in class until the official end of the class period or dismissal by the instructor.
- Keep cell/digital phones and pagers on silent mode during classes, laboratories, and clinic sessions.

Program Costs
Total program costs for dental hygiene degree programs are
shown in Table 1. All figures are approximate and based on full-time enrollment. Non-resident students are subject to additional costs that may be found under “Financial Information” in this Catalog.

Remediation

Remediation of a course in which an unsatisfactory grade was earned may be considered by the CAHS/COGS if recommended by the course director and/or CAHS/COGS. Methods for remediation are determined by the CAHS/COGS in consultation with the individual course instructor, and specified in writing to the student. The student is expected to complete the course(s) within the time frame specified by the CAHS/COGS.

Student Conduct

Students are responsible for knowing and observing the university’s Regulations Governing Student Conduct and Discipline, described in this Catalog, and the Rules and Regulations of the Board of Regents of the University of Texas System.

Dental hygiene students are considered 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. Examples of professional behaviors are given under “Guide for Professional Conduct” in the School of Allied Health Sciences section of this Catalog.

Students are expected to perform at a professional level when interacting with peers, patients, faculty, and staff when representing the UTHSCSA at clinical rotation sites or other community activities. A breach of professional conduct may be considered grounds for dismissal from the program, to be determined by the Committee on Allied Health Studies or Committee on Graduate Studies.

Dental Hygiene Professionalism: Students in the dental hygiene programs are expected to abide by ethical standards set forth in policies of the Department of Dental Hygiene, School of Allied Health Sciences, and UTHSCSA. Representative examples of professional behaviors, traits, and qualities are given below, but are not all-inclusive.*

<table>
<thead>
<tr>
<th>Program</th>
<th>Tuition and Fees</th>
<th>Health Insurance*</th>
<th>Other Costsb</th>
</tr>
</thead>
<tbody>
<tr>
<td>Entry-level Bachelor’s Degree</td>
<td>$11,150</td>
<td>$1690</td>
<td>$6600</td>
</tr>
<tr>
<td>Bachelor’s Degree Completion – UTHSCSA Graduates</td>
<td>$1,800</td>
<td>$450</td>
<td>$0</td>
</tr>
<tr>
<td>Bachelor’s Degree Completion – Other Graduates</td>
<td>$5700</td>
<td>$750</td>
<td>$0</td>
</tr>
<tr>
<td>Master of Science Degreec</td>
<td>$6400</td>
<td>$1510</td>
<td>$250</td>
</tr>
</tbody>
</table>

a Students who provide proof of health insurance that meets state requirements are not required to pay the health insurance fee
b Other Costs include textbooks, computer, and other miscellaneous expenses
c Based on completion of the program in 4 semesters

Reliability and Responsibility
- Fulfilling responsibilities in a reliable manner
- Learning how to complete assigned tasks
- Managing time in a responsible manner to avoid tardiness, absence, or late assignments
- Providing thorough and complete documentation of clinical activities
- Adhering to clinic or course protocol

Self-improvement and Adaptability
- Accepting constructive feedback
- Recognizing limitations and seeking help
- Being respectful of colleagues and patients
- Incorporating feedback in order to make changes in behavior
- Adapting to change

Relationships with Students, Faculty, Staff, Patients, and Guests
- Establishing rapport
- Being sensitive to the needs of patients
- Establishing and maintaining appropriate boundaries in work and learning situations
- Extending professional courtesy and attentiveness to fellow students in a learning environment
- Extending professional courtesy and attentiveness to staff in a learning environment
- Extending professional courtesy and attentiveness to faculty in a learning environment
- Extending professional courtesy and attentiveness to faculty and guests in an academic or professional setting

Withdrawal
Permission to withdraw from a course(s) may be granted by the department chair. Students wishing to withdraw for any reason must submit a written request in writing to the department chair, including a reason for the request, and

* Adapted from Papdakis (2001). Early Detection and Evaluation of Professionalism Deficiencies in Medical Students: One School’s Approach. Academic Medicine, Vol. 76:11, p. 1102. From the University of California – San Francisco School of Medicine.
meet with the department chair to discuss the withdrawal process. The symbol W is recorded for each course that the student did not complete. Students may not withdraw from any course after the final examination period has begun.

Program Curricula

Entry-Level Bachelor of Science in Dental Hygiene Program

First Year

<table>
<thead>
<tr>
<th>Fall Semester</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>DENH 3004 Oral Anatomy</td>
<td>2.0</td>
</tr>
<tr>
<td>DENH 3006 Preclinical Dental Hygiene</td>
<td>2.0</td>
</tr>
<tr>
<td>DENH 3018 Dental Radiography</td>
<td>3.0</td>
</tr>
<tr>
<td>DENH 3033 Structures of the Head and Neck</td>
<td>2.0</td>
</tr>
<tr>
<td>DENH 3019 Oral Health Promotion/Disease Prevention</td>
<td>4.0</td>
</tr>
<tr>
<td>DENH 3023 Introduction to Clinical Theory</td>
<td>3.0</td>
</tr>
<tr>
<td><strong>Total for Fall Semester</strong></td>
<td><strong>16.0</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Spring Semester</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>DENH 3020 Clinic I Seminar</td>
<td>2.0</td>
</tr>
<tr>
<td>DENH 3021 Clinic I</td>
<td>3.0</td>
</tr>
<tr>
<td>DENH 3034 Periodontics</td>
<td>3.0</td>
</tr>
<tr>
<td>DENH 3035 Pharmacotherapeutics</td>
<td>4.0</td>
</tr>
<tr>
<td>DENH 3040 Histology/Embryology</td>
<td>2.0</td>
</tr>
<tr>
<td><strong>Total for Spring Semester</strong></td>
<td><strong>16.0</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Summer Session</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>DENH 3011 Current Issues in Dental Hygiene</td>
<td>3.0</td>
</tr>
<tr>
<td>DENH 3022 Dental Materials</td>
<td>3.0</td>
</tr>
<tr>
<td><strong>Total for Summer Session</strong></td>
<td><strong>6.0</strong></td>
</tr>
</tbody>
</table>

Second Year

<table>
<thead>
<tr>
<th>Fall Semester</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>DENH 4012 Oral Pathology</td>
<td>3.0</td>
</tr>
<tr>
<td>DENH 4020 Clinic Seminar II</td>
<td>2.0</td>
</tr>
<tr>
<td>DENH 4021 Community Oral Health</td>
<td>3.0</td>
</tr>
<tr>
<td>DENH 4022 Clinic II</td>
<td>3.0</td>
</tr>
<tr>
<td>DENH 4025 Advanced Periodontics</td>
<td>3.0</td>
</tr>
<tr>
<td><strong>Total for Fall Semester</strong></td>
<td><strong>14.0</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Spring Semester</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>DENH 4015 Clinic III</td>
<td>3.0</td>
</tr>
<tr>
<td>DENH 4016 Clinic III Seminar</td>
<td>2.0</td>
</tr>
<tr>
<td>DENH 4017 Community Oral Health Practicum</td>
<td>2.0</td>
</tr>
<tr>
<td>DENH 4018 Introduction to Research</td>
<td>3.0</td>
</tr>
<tr>
<td>DENH 4019 Practice Management</td>
<td>2.0</td>
</tr>
<tr>
<td>DENH 4026 Healthcare Ethics</td>
<td>1.0</td>
</tr>
<tr>
<td><strong>Total for Spring Semester</strong></td>
<td><strong>13.0</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Program Total for Entry-Level Bachelor of Science</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>63.0</strong></td>
<td></td>
</tr>
</tbody>
</table>

All bachelor’s degree completion students who are graduates of the entry-level certificate dental hygiene program at the UTHSCSA must complete at least three of the courses listed below, for a total of 9.0 semester credit hours. Registered Dental Hygienists who are not graduates of the UTHSCSA entry-level program are required to take a minimum of 30 semester credit hours on the UTHSCSA campus to earn the bachelor’s degree.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>DENH 3003</td>
<td>Health Promotion</td>
<td>3.0</td>
</tr>
<tr>
<td>DENH 3007</td>
<td>Preclinical Teaching Practicum</td>
<td>4.0</td>
</tr>
<tr>
<td>DENH 3011</td>
<td>Current Issues in Dental Hygiene</td>
<td>3.0</td>
</tr>
<tr>
<td>DENH 3013</td>
<td>Research Principles and Applications</td>
<td>3.0</td>
</tr>
<tr>
<td>DENH 3015</td>
<td>Public Health Practicum</td>
<td>4.0</td>
</tr>
<tr>
<td>DENH 3017</td>
<td>Clinical Teaching Practicum</td>
<td>4.0</td>
</tr>
<tr>
<td>DENH 4007</td>
<td>Clinical Administration Practicum</td>
<td>4.0</td>
</tr>
<tr>
<td>DENH 4023*</td>
<td>Special Topics</td>
<td>1.0–3.0</td>
</tr>
<tr>
<td>DENH 4024*</td>
<td>Concepts and Practice in Teaching</td>
<td>3.0</td>
</tr>
<tr>
<td>DENH 4091*</td>
<td>Independent Study</td>
<td>1.0–3.0</td>
</tr>
</tbody>
</table>

* May be repeated for one to three credit hours, depending on student's course of study

Master of Science in Dental Hygiene

The Master of Science in Dental Hygiene degree program requires a minimum of 36 semester hours, including successful completion of a research-based thesis. A part-time option is available, but all work toward the degree should be completed with 6 years of initial enrollment. Students with extenuating circumstances may petition the Committee on Graduate Studies for additional time to complete the degree. The curriculum includes specific core courses and electives. Individualized degree plans are formulated from the courses listed below depending upon the student's interests.

Master of Science in Dental Hygiene

Core Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>DENH 5022</td>
<td>Research Apprenticeship</td>
<td>3.0</td>
</tr>
<tr>
<td>DENH 5024</td>
<td>Professional Communication</td>
<td>3.0</td>
</tr>
<tr>
<td>DENH 5026</td>
<td>Research Principles and Applications</td>
<td>3.0</td>
</tr>
<tr>
<td>DENH 5091</td>
<td>Special Topics in Dental Hygiene</td>
<td>3.0</td>
</tr>
<tr>
<td>DENH 5924</td>
<td>Biostatistics</td>
<td>3.0</td>
</tr>
<tr>
<td>DENH 6098</td>
<td>Thesis</td>
<td>6.0</td>
</tr>
<tr>
<td>INTD 6002</td>
<td>Ethics in Research</td>
<td>0.5</td>
</tr>
<tr>
<td><strong>Total for Core Courses</strong></td>
<td><strong>21.5</strong></td>
<td></td>
</tr>
</tbody>
</table>

Master of Dental Hygiene Electives

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>DENH 5003</td>
<td>Current Issues in Dental Hygiene</td>
<td>3.0</td>
</tr>
<tr>
<td>DENH 5007</td>
<td>Clinical Administration Practicum</td>
<td>4.0</td>
</tr>
<tr>
<td>DENH 5010</td>
<td>Teaching Internship</td>
<td>3.0</td>
</tr>
<tr>
<td>DENH 5015</td>
<td>Public Health Practicum</td>
<td>4.0</td>
</tr>
<tr>
<td>DENH 5017</td>
<td>Clinical Teaching Practicum</td>
<td>4.0</td>
</tr>
<tr>
<td>DENH 5036</td>
<td>Health Promotion</td>
<td>3.0</td>
</tr>
<tr>
<td>DENH 5091</td>
<td>Special Topics</td>
<td>1.0–3.0</td>
</tr>
<tr>
<td>DENH 5903</td>
<td>Organizational Leadership</td>
<td>3.0</td>
</tr>
<tr>
<td>DENH 5926</td>
<td>Preclinical Teaching Practicum</td>
<td>4.0</td>
</tr>
<tr>
<td>DENH 6091</td>
<td>Independent Study</td>
<td>1.0–3.0</td>
</tr>
</tbody>
</table>
Course Descriptions

DENH 3004 Oral Anatomy
2.0 Semester 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. Lab fee: $4.

DENH 3006 Preclinical Dental Hygiene
2.0 Semester 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. This course must be taken concurrently with DENH 3023. Includes eight (8) clinical hours per week. Lab fee: $10.

DENH 3007 Preclinical Teaching Practicum
4.0 Semester 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.

DENH 3011 Current Issues in Dental Hygiene
3.0 Semester Credit Hours
This course provides students with an introduction to the various functional roles of the dental hygienist. Topics include self interest inventories; professional and educational qualifications for various career options; résumé/curriculum vita development; interviewing strategies; opportunities to observe professionals in their career roles; and major issues facing the dental and hygiene professions, such as new treatment modalities, workforce issues, quality assurance, access to care for special patient populations, and the cost of health care.

DENH 3013 Research Principles and Applications
3.0 Semester 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.

DENH 3015 Public Health Practicum
4.0 Semester 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.

DENH 3017 Clinical Teaching Practicum
4.0 Semester Credit Hours
This course is an introduction to clinical instruction. Students 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.

DENH 3018 Dental Radiography
3.0 Semester Credit Hours
This course is an introduction to scientific principles of dental 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. Lab fee: $25.

DENH 3019 Oral Health Promotion/Disease Prevention
4.0 Semester 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 four (4) lecture hours per week.

DENH 3020 Clinic I Seminar
2.0 Semester Credit Hours
Prerequisite: All fall DH I courses
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. This course must be taken concurrently with DENH 3021. Includes two (2) lecture hours per week.

DENH 3021 Clinic I
3.0 Semester Credit Hours
Prerequisite: All fall DH I courses
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. This course must be taken concurrently with DENH 1045. Includes twelve (12) clinical hours per week. Lab fee: $30.

DENH 3022 Dental Materials
3.0 Semester 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. Lab fee: $25.

DENH 3023 Introduction to Clinical Theory
3.0 Semester 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. This course must be taken concurrently with DENH 3006. Includes three (3) lecture hours per week.
DENH 3033 Structures of the Head and Neck
2.0 Semester 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
3.0 Semester Credit Hours
Prerequisite: Preclinical (course should be taken in same semester as DENH 3021)
This course presents an in-depth study of the basics of periodontics. This course will include, but is 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.

DENH 3035 Pharmacotherapeutics
4.0 Semester 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. Lab fee: $10.

DENH 3040 Pharmacotherapeutics
4.0 Semester 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
4.0 Semester Credit Hours
The purpose of this course is to present 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.

DENH 4012 Oral Pathology
3.0 Semester Credit Hours
Prerequisite: DENH 3033
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.

DENH 4015 Clinic III
3.0 Semester Credit Hours
Prerequisites: DENH 4012, DENH 4022, DENH 4014
A continuation of DENH 4022 Clinic II, 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. This course must be taken concurrently with DENH 4020. Includes twelve (12) clinic hours per week. Lab fee: $30.

DENH 4016 Clinic III Seminar
2.0 Semester Credit Hours
Prerequisites: DENH 4012, DENH 4022, DENH 4014
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 Preclinical, Clinic I, and 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. This course must be taken concurrently with DENH 4020. Includes three (3) lecture hours per week.

DENH 4017 Community Oral Health Practicum
2.0 Semester Credit Hours
Prerequisite: DENH 4021
This course is the continuation of the fall Community Oral Health Course 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.

DENH 4018 Introduction to Research
3.0 Semester Credit Hours
This course presents basic research principles to facilitate reading and reviewing professional and scientific literature, obtaining research information to support current oral health care treatment and preventive procedures, and providing accurate information to their patients. Topics include the role of the dental hygienist in research, basic research terminology, design and methods, sampling techniques, conducting literature reviews, understanding basic statistics, and applying this information to professional dental hygiene practice. Learners will also have the opportunity to develop team building and communication skills within the context of a team project utilizing face-to-face and virtual environments. Includes three (3) lecture hours per week.

DENH 4019 Practice Management
2.0 Semester 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, resume 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 II Seminar

2.0 Semester Credit Hours
Prerequisites: DENH 3022, DENH 3035, DENH 3021, DENH 3034
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 Preclinic and Clinic I. 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. This course must be taken concurrently with DENH 4022. Includes three (3) lecture hours per week.

DENH 4021 Community Oral Health

3.0 Semester Credit Hours
Community Oral Health is a two-semester course. It is the intent of the course to teach the important role of the dental hygienist in the community, and to describe the relationship of community oral health to public health. The course prepares the student to promote oral health and prevent oral disease in the community. The concepts of assessment, planning, implementation, and evaluation phases of community-based programs are taught. During the first semester, the student plans a community oral health education program that is implemented and evaluated during the second semester of this course. Cultural differences, socioeconomic factors, and barriers to health care are discussed in relation to developing preventive programs. Federal and state public health programs are discussed as well as current public health issues. Community oral health programs for vulnerable populations such as indigent, geriatric, and special needs patients are included. Includes three (3) lecture hours per week.

DENH 4022 Clinic II

3.0 Semester Credit Hours
Prerequisites: DENH 3022, DENH 3035, DENH 3021, DENH 3034
A continuation of DENH 3021 Clinic I, 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. This course must be taken concurrently with DENH 4020, Clinic Seminar II. Includes twelve (12) clinic hours per week. Lab fee: $30.

DENH 4023 Special Topics

1.0–3.0 Semester 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

3.0 Semester Credit Hours

This course 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

3.0 Semester Credit Hours
Prerequisites: Completion of First Year Dental Hygiene Coursework
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.

DENH 4026 Healthcare Ethics

1.0 Semester 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 4091 Independent Study

1.0–3.0 Semester 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 Promotion

3.0 Semester Credit Hours
This 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 5003 Current Issues in Dental Hygiene

3.0 Semester Credit Hours
This course provides students with an introduction to the various functional roles of the dental hygienist. Topics include self interest inventories; professional and educational qualifications for various career options; resume/curriculum vitae development; interviewing strategies; opportunities to observe professionals in their career roles; and major issues facing the dental and dental hygiene professions, such as new treatment modalities, workforce issues, quality assurance, access to care for special patient populations, and the cost of health care.

DENH 5007 Clinical Administration Practicum

4.0 Semester Credit Hours
The purpose of this course is to present 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.

DENH 5010 Teaching Internship
3.0 Semester 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 is provided by the graduate faculty.

DENH 5015 Public Health Practicum
4.0 Semester 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.

DENH 5017 Clinical Teaching Practicum
4.0 Semester 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.

DENH 5022 Research Apprenticeship
3.0 Semester 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.

DENH 5024 Professional Communication
3.0 Semester 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 is 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 and Applications
3.0 Semester 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.

DENH 5036 Health Promotion
3.0 Semester 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 5091 Special Topics in Dental Hygiene
1.0–3.0 Semester 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
3.0 Semester 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 academic leadership and administration. The course will provide students with general information relating to organizational theory and more specific information about how educational organizations are designed and managed within different institutional settings: community colleges, private and public colleges, and universities. Additional topics will include external and internal factors affecting education, administrative roles, leadership and management styles, program planning and implementation, budget and personnel management, faculty and staff development, outcomes assessment, accreditation, and other topics related to student interests.

DENH 5924 Biostatistics
3.0 Semester 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
4.0 Semester 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.

DENH 6091 Independent Study
1.0–3.0 Semester 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
Variable Semester Credit Hours
Prerequisite: Admission to candidacy for the M.S. degree
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.

INTD 6002 Ethics in Research
0.5 Semester Credit Hour
This course will deal with topics relevant to ethics in scientific research. The course will be 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.
DENTAL LABORATORY TECHNOLOGY

Dental Laboratory Technology is the profession that provides dentists with the prosthetic devices used to rehabilitate disorders in the mouths of their patients. The dental technician is able to work independently with various materials such as gold, porcelain, and acrylics to provide precision restorations to address patient needs. This is accomplished by using the instructions provided on a prescription from a board certified dentist and with the impressions of the patient’s teeth.

Dental technicians have extensive knowledge of dental materials and dental anatomy. They blend this knowledge with mechanical skills and artistic aptitudes that are highly valued in the profession. Examples of some of the appliances made by dental technicians are gold crowns, porcelain bridges, removable partial dentures, complete dentures, and orthodontic devices. The bachelor degree-prepared technologist is expected to perform even more complex tasks, troubleshoot, effectively manage and supervise various types of dental laboratory operations.

Bachelor of Science in Dental Laboratory Sciences Program

The Bachelor of Science in Dental Laboratory Sciences degree program is designed for dental laboratory technicians who wish to obtain advanced training in the profession. Students in the program receive education and training to practice on the technologist level. The dental laboratory technologist provides managerial/supervisory services for the dental laboratory and exhibits advanced knowledge and skills in the laboratory aspects of dentistry – fabricating dentures, crowns, bridges, implants, and maxillofacial and orthodontic appliances. Additionally, the dental laboratory technologist may apply specialized knowledge and training to address the administrative requirements of the commercial dental laboratory.

Serving in the capacity of personnel supervisor, the dental laboratory technologist manages all aspects of the fabrication of oral prostheses, including job assignments, lab procedures, personnel training, infection control, materials/equipment procurement and maintenance, and quality control. Pursuit of the bachelor’s degree in dental laboratory sciences gives the student the opportunity to acquire and/or expand those skills necessary to operate a successful dental laboratory.

The bachelor's degree program consists of a minimum of 120 semester credit hours, including 90 semester credit hours of Texas Core Curriculum and program prerequisite courses (entry-level dental laboratory technology and business), and 30 semester credit hours of bachelor's program courses offered at UTHSCSA.

Specialized accreditation is not available for bachelor's degree programs in dental laboratory technology.

Application and Admission

Application for admission to the Bachelor of Science in Dental Laboratory Sciences program may be completed at https://www.applytexas.org/adappc/commonapp.WBX. Detailed information about application and admission is available in the School of Allied Health Sciences Application Viewbook, available from the Allied Health Welcome Center at (866) 802-6288 (toll-free) or (210) 567-8744, and online at http://studentservices.uthscsa.edu/publications/allied.html. Completed application, application fee, official transcripts, and supporting documents must be submitted to the Registrar by June 1 for fall semester admission.

Admission Factors

In addition to the admission requirements described below, the following factors are considered for selecting students for the Bachelor of Science in Dental Laboratory Sciences program:

- Bilingual ability
- Race/ethnicity
- Hometown or county of residence that has been designated an underserved and/or dental professions shortage area, especially South Texas
- Socio-economic history (educationally and/or economically disadvantaged)
- Public/community service or “volunteer” related activities
- Prior experience in providing dental health care related services
- Success in overcoming adverse personal, family, or life conditions/experiences
- Communication skills
- Commitment/desire to serve in a dental underserved region of the state following graduation
- Future goals
- Knowledge and preparation to enter the profession of dental laboratory technology gained through observing or volunteering in a dental practice or dental laboratory setting
- Residential status: Texas residents or permanent Texas resident aliens are given preference

Admission Requirements

Admission requirements for the Bachelor of Science in Dental Laboratory Sciences degree program include:

- Coursework or training in dental laboratory technology with grade of C or better (45 semester credit hours)
- Successful completion of the Texas Core Curriculum with grade of C or better (42 semester credit hours); detailed information about the core curriculum is provided in this Catalog
The dental laboratory technology requirement may be satisfied by: (a) completion of dental laboratory technology training at an ADA-accredited program; (b) professional credentials from a nationally- or internationally-recognized dental laboratory credentialing agency; (c) documented experience and training; and/or (d) successful completion of written and/or practical challenge examinations in dental materials, dental anatomy, and a specialty area. For further information about receiving academic credit for training or experience, see Credit by Examination and Credit for Professional Experience, below. Core curriculum and business requirements must be completed at a regionally accredited college or university.

General Policies and Information

Advancement, Probation, and Dismissal

The Committee on Allied Health Studies (CAHS) reviews a student's rate of progress toward the completion of the program. Students may be suspended, dismissed, or refused re-admission at any time if circumstances of an ethical, moral, social, legal, health, psychomotor skills development, or academic nature are considered to justify such action (see Conduct and Discipline in this Catalog).

Performance Review: The CAHS reviews a student's performance at the middle and end of each term. At midterm the CAHS determines whether the student is progressing satisfactorily or whether a warning letter from the department chair is needed. Warning letters specify each course in which the student is performing unsatisfactorily and require that the student meet with the course director and academic advisor to assist in remediation strategies. Students are responsible for arranging faculty counseling and assistance in remedying academic deficiencies. Failure to meet with the course director and academic advisor may be grounds for dismissal.

Promotion Recommendations: At the end of a semester, the CAHS determines each student's promotion status. In making these determinations, the CAHS evaluates several aspects of the student's performance: (1) course grades, (2) attendance record, (3) professional behavior, and (4) psychomotor skills development. The CAHS also may assess extenuating circumstances that might have affected the student's progress on an individual basis. A student performing at an unsatisfactory level will receive written notification of her/his status from the department chair. The CAHS may recommend one of the following:

Unconditional Advancement – A student must:
• Achieve a minimum grade point average of 2.0 each semester
• Successfully complete all prescribed courses and requirements
• Earn a satisfactory grade in each course taken (minimum grade of C, S, or Pass)

In addition, the CAHS will consider all areas listed above under Promotion Recommendations.

Probationary Advancement – A student may be considered for advancement while on probation if the student:
• Withdraws from a prescribed course with the approval of the department chair, but has met all other conditions for Unconditional Advancement (see above)
• Receives an unsatisfactory grade in any course
• Receives a grade of I (Incomplete)
• Earns a semester grade point average below 2.0

A student who receives an unsatisfactory grade (D, F, U, or Fail) in any course may be required to repeat all or part of the academic year or may be allowed to remediate the areas of deficiency. When repeating any portion of the academic year, the student must earn grades of at least C, S, or Pass in each course to remain in the program. Remediation of a course in which a grade lower than C, S, or Pass was earned may be considered by the CAHS if: (1) such action is recommended by the course director for the course in question, (2) the course is not required for advancement to the next semester or year, or (3) remediation could be completed prior to the beginning of the next semester or year.

Methods for remediation are determined by the CAHS in consultation with the course director and specified in writing to the student. The CAHS will also specify a timeframe for completion of the remediation.

A student who withdraws from a course with the permission of the department chair or who receives an I in any course may advance on probation to the next semester or year if she/he has maintained a grade point average of at least 2.0. The student will be required to finish incomplete work or enroll in courses that were dropped and may be required to meet special stipulations or conditions determined by the CAHS. A student placed on probation will remain on probation until all deficiencies are corrected.

Dismissal – A student is subject to dismissal from the program if the student:
• Receives a failing grade in two or more courses in a semester,
• Receives a failing grade in a course being repeated or remediated,
• Receives a failing grade in any course while repeating any portion of the academic year,
• Receives a failing grade in any course taken while on part-time status,
• Receives a failing grade in an course taken while on probation, or
• Has a grade point average that falls below 2.0
The CAHS will consider all areas listed under Promotion Recommendations, above, when evaluating student progress. The CAHS reserves the right to make alternate promotion decisions as deemed appropriate.

**Attendance**

Students are expected to attend every class, laboratory, conference, demonstration, meeting, clinical assignment, etc., that is a component of the curriculum. The once-a-year offering of courses and step-by-step format of the curriculum allow minimal or no opportunity for make-up sessions. The faculty are 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.

Personal illness, immediate family emergency, and a natural disaster are reasons for absence. However, prolonged absences for any reason may not be remediable.

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 will result in faculty review and penalties, including dismissal from the program.

Course grading requirements may include participation and any absence is considered non-participation. Students should display appropriate professional behaviors while attending each class to include:

1. Respect for the instructor or guest speaker by attending class on time,
2. Not talking to classmates while class is in session,
3. No food, drink, or open containers allowed in laboratories,
4. Not leaving class prior to the official end of the class period or dismissal by the instructor,
5. Compliance with dress code and safety standards,
6. No cell phone use during class.

Unexcused absences in courses in which attendance is required may be considered sufficient cause for failure. Excused absences may be granted by the course instructor or Department Chair in such cases as illness or personal emergency (i.e., extended hospitalization, death in the family). 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 arrange with the instructor to make up missed work.

**Auditing Courses**

Students who audit any course are expected to be present at all scheduled lectures, class sessions, or laboratories. Audit students must adhere to the same course attendance policy as regularly enrolled students and may be required to take examinations or evaluations in didactic courses. Students auditing a course with laboratory or psychomotor skill components are required to demonstrate competency in the psychomotor aspects and professionalism of the course. The symbol **AU** is entered on the student's official transcript upon completion of the course, provided that attendance and other requirements are met.

**Credit by Examination**

Credit by examination is offered for many courses in the program. Credit by examination is validation of the student's competencies, and credit may be awarded based on achievement of objectives demonstrated by passing the challenge examination. The student is then allowed to register for courses appropriate for the demonstrated level of achievement.

Students who choose to challenge courses may obtain course syllabi from the course director. Students attempting credit by examination will not receive tutoring by faculty in preparation for a challenge examination.

Students may not take an examination for credit if they have previously completed the course(s) with either a passing or failing grade or they have withdrawn from the course(s). Credit is granted for a grade of C or higher on a challenge examination. Credit earned by examination will be recorded as the actual letter grade achieved and will be used in computing the cumulative grade point average.

Students wishing to challenge a course by examination must submit a written request to the Committee on Allied Health Studies a minimum of 6 weeks prior to the beginning of the semester in which the course is offered. Once approval is granted, the student may schedule the examination with the department Chair.

**Credit for Professional Experience**

Credit may be granted for professional experience alone. Individuals with professional experience and/or non-accredited training may be able to satisfy some of the program's admission requirements by requesting credit for professional experience. Individual requests for credits are evaluated on a case-by-case basis and must be submitted in writing for approval prior to registration.

**Professional Attire**

Students are expected to dress in a professional manner. The mandatory attire for students is a traditional V-neck short sleeve, cotton-polyester blend, scrub-style uniform consisting of a scrub top and pant. Closed-toe shoes and University-issued name tags also are mandatory. Students have the option of purchasing a white, short sleeved, lab jacket to be worn with or without the scrubs. The Department’s official guidelines pertaining to student dress is issued to all students during Registration. Any student not complying with the dress code may not be allowed to attend class.

**Professional Ethics**

The dental laboratory technician must maintain the highest level of professionalism in conduct, aims, and qualities that characterize or mark Dental Laboratory Technology.
• A technician must always put the welfare of the patient above all other considerations.
• Complete patient confidentiality is practiced at all times.
• A technician must display the knowledge of, and practice the theories of, laboratory safety consciousness and infection control.
• A technician must have integrity in all professional activities.
• A technician must embrace the values of academic excellence by continually participating in continuing dental education courses.
• A technician must contribute to the betterment of the dental community.

Students are expected to learn and practice this code of ethics throughout their academic experience as well as throughout their professional careers.

Program Costs
Total program costs for tuition and fees, parking permits, health and liability insurance, etc., are approximately $6,900 for the program. In addition, costs for other expenses, such as textbooks, course manuals, equipment lease, uniforms or scrubs, professional examination, and supplies are approximately $2,000. Non-resident students are subject to additional tuition costs, which may be found under “Financial Information” in this Catalog.

Remediation
A student who earns a D or F in any Dental Laboratory Technology course but who is otherwise in good standing, with the approval of the Committee on Allied Health Studies (CAHS), may be allowed one opportunity to repeat the course under conditions imposed by the CAHS. A maximum grade of C is assigned for successful completion of courses that are repeated. The opportunity to repeat a course depends on space availability and cannot be guaranteed. If, in the judgment of the CAHS, it is impractical for the student to attempt to remediate deficiencies by repeating courses, the student may be required to repeat the academic year in part or in entirety.

Bachelor of Science in Dental Laboratory Sciences Curriculum
The entire Bachelor of Science in Dental Laboratory Sciences program consists of 120 semester credit hours, including 90 hours of core curriculum and program prerequisites, and 30 semester credit hours of program courses offered at UTHSCSA. Core curriculum and program prerequisites are described above (see Admission Requirements).

The program curriculum consists of 18 semester credit hours of required courses and at least 12 semester credit hours of electives:

Junior Year
Fall Semester

Required Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>DELT 3001</td>
<td>Introduction to Dental Laboratory Operations</td>
<td>3.0</td>
</tr>
<tr>
<td>DELT 3045</td>
<td>Introduction to Dental Research</td>
<td>3.0</td>
</tr>
<tr>
<td>DELT 4013</td>
<td>Compliance Issues in the Dental Laboratory Profession</td>
<td>3.0</td>
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<td>Semester Total (Required Courses)</td>
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</table>

Elective Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>DELT 3043</td>
<td>Current Issues in the Dental Laboratory Profession</td>
<td>3.0</td>
</tr>
<tr>
<td>DELT 3005</td>
<td>Advanced Laboratory Procedures I</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Spring Semester

Required Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>DELT 3041</td>
<td>Innovations in Dental Technology</td>
<td>3.0</td>
</tr>
<tr>
<td>DELT 3047</td>
<td>Case Presentation</td>
<td>3.0</td>
</tr>
<tr>
<td>DELT 4007</td>
<td>QA/QC in the Dental Laboratory</td>
<td>3.0</td>
</tr>
<tr>
<td>Semester Total (Required Courses)</td>
<td></td>
<td>9.0</td>
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</table>

Elective Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>DELT 3015</td>
<td>Advanced Laboratory Procedures II</td>
<td>3.0</td>
</tr>
<tr>
<td>DELT 3039</td>
<td>Dental Laboratory Professional Development</td>
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</tr>
</tbody>
</table>

Summer Semester

Elective Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>DELT 3013</td>
<td>Development of Education and Training Programs</td>
<td>3.0</td>
</tr>
<tr>
<td>DELT 3035</td>
<td>Dental Laboratory Operation Strategies</td>
<td>3.0</td>
</tr>
<tr>
<td>DELT 4005</td>
<td>Advanced Laboratory Procedures III</td>
<td>3.0</td>
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</table>

Senior Year

Fall Semester

Elective Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>DELT 3037</td>
<td>Internship in Education and Training</td>
<td>8.0</td>
</tr>
<tr>
<td>DELT 4021</td>
<td>Internship in Dental Laboratory Production</td>
<td>8.0</td>
</tr>
<tr>
<td>DELT 4022</td>
<td>Internship in Dental Laboratory Operations</td>
<td>8.0</td>
</tr>
<tr>
<td>DELT 4090</td>
<td>Special Topics</td>
<td>1.0-4.0</td>
</tr>
<tr>
<td>DELT 4091</td>
<td>Independent Study</td>
<td>1.0-4.0</td>
</tr>
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</table>

Spring Semester

Elective Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>DELT 4090</td>
<td>Special Topics</td>
<td>1.0-4.0</td>
</tr>
<tr>
<td>DELT 4091</td>
<td>Independent Study</td>
<td>1.0-4.0</td>
</tr>
<tr>
<td>DELT 4914</td>
<td>Dental Laboratory Operation and Production Seminar</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Program Total (Required Courses) | 18.0
Program Total (Elective Courses) | 12.0
Program Total | 30.0

Course Descriptions

DELT 3001 Introduction to Dental Laboratory Operations 3.0 Semester Credit Hours
This course introduces students to key theoretical and practical laboratory issues such as management principles, functional activities, and problems related to the operations of a dental laboratory. Class projects focus on planning and organization issues.
DELT 3005  Advanced Laboratory Procedures I  
**3.0 Semester Credit Hours**  
This course in a series of three laboratory skills courses. Theoretical foundations underpinning the production of prosthetic devices are examined. Course content includes the study of composition, as well as properties of dental materials and how these materials interact with the environment in which they are used.

DELT 3013  Development of Education and Training Programs  
**3.0 Semester Credit Hours**  
This course introduces students to the theoretical and practical aspects of developing educational and training programs. Course topics include analyzing training needs, designing instruction, developing instructional materials, evaluating instructional media, developing training documentation, and educational consulting.

DELT 3015  Advanced Laboratory Procedures II  
**3.0 Semester Credit Hours**  
This course is a continuation of Advanced Laboratory Procedures I. Students are provided an opportunity to expand their knowledge, understanding, and skills in the fabrication of advanced laboratory prostheses.

DELT 3032  Dental Lab Production Systems  
**1.0 Semester Credit Hour**  
This course will focus on developing fabrication and production systems for the small, medium, and large dental laboratories. Course content will address areas such as facilities layout, cost-reduction strategies, production flow, and problems associated with the economical production of high-quality dental appliances. Emphasis will be placed on ways to blend high quality with high production through the efficient use of technical resources. This Web-based course is offered by distance education technology. Texas residents and non-residents living in Texas pay applicable tuition and fees of UTHSCSA. Non-Texas residents living outside of Texas pay the Out-of-State Instructional Fee.

DELT 3035  Dental Laboratory Operation Strategies  
**3.0 Semester Credit Hours**  
This course examines contemporary strategies for the blending of administrative and supervisory theories related to the art and sciences of dental technology. Included is a series of lectures by faculty and laboratory owners, as well as field visits offering in-depth insight into dental laboratory operations. The student is required to conduct a written evaluation of a dental laboratory practice. An additional assignment includes the model design and presentation of a full service dental laboratory.

DELT 3037  Internship in Education and Training  
**8.0 Semester Credit Hours**  
This course provides the student with the opportunity to observe/work in dental laboratory education and training settings. The institution is required to allow the student to shadow faculty and observe their daily job functions. The site is required to allow the student to present lecture and laboratory lesson based on the institution’s curricula. The site is required to allow the student to complete a pre-approved project.

DELT 3039  Dental Laboratory Professional Development  
**3.0 Semester Credit Hours**  
This course exposes the student to issues related to developing professional, productive members of the dental health team. Emphasis is placed on supervisory and leadership training in areas of work ethics, technical skills, and professionalism. Students are required to conduct on-site visits to dental clinics and dental to observe the development and utilization of dental staff supervision practices.

DELT 3041  Innovations in Dental Technology  
**3.0 Semester Credit Hours**  
This course presents the most recent innovations in dental laboratory technology, including innovations in areas of operation and production.

DELT 3043  Current Issues in the Dental Laboratory Profession  
**3.0 Semester Credit Hours**  
This course presents an overview of current issues facing the dental laboratory profession and dentistry in general. These issues are examined in the context of their cause, effect, and possible solutions.

DELT 3045  Introduction to Dental Research  
**3.0 Semester Credit Hours**  
This course direction is to equip the dental technician with knowledge and understanding of research concepts that impact the operations of a dental laboratory. These concepts include the understanding scientific literature and basic statistics. Students have the opportunity to utilize these concepts in evaluating laboratory materials, systems, and procedures as well as manufacturer's claims and sales jargon.

DELT 3047  Case Presentation  
**3.0 Semester Credit Hours**  
This course direction is to prepare the student in presenting the laboratory portion of a patient case study. The student is required to document, explain, and defend the laboratory options selected for the case. The student is given the opportunity to utilize multimedia presentation methods.

DELT 4005  Advanced Laboratory Procedures III  
**3.0 Semester Credit Hours**  
This course is the last in the series of Advanced Laboratory Procedures. Primary goals include developing problem-solving skills and enhancing technical proficiency. Laboratory projects reflect the difficulty and time restraints encountered in commercial laboratory settings.

DELT 4007  QA/QC in the Dental Laboratory  
**3.0 Semester Credit Hours**  
The concept of Total Quality Management is the major focus of this course as it applies to laboratory operations. Special emphasis is placed on the historical, competitive, and economic aspects of TQM in the cycle of dental services.

DELT 4013  Compliance Issues in the Dental Laboratory Profession  
**3.0 Semester Credit Hours**  
This course presents issues related to laws, regulations, and ethics that impact the dental laboratory profession. Emphasis is placed on exposure control, hazard communication, and protection of personal information.

DELT 4021  Internship in Dental Laboratory Production  
**8.0 Semester Credit Hours**  
This course provides the student the opportunity to observe/work in dental laboratory production settings. The laboratory is required to provide the student with hands-on experience in the various departments involved in the production of dental prostheses. The laboratory
is required to allow the student to shadow supervisors and observe their daily job functions.

DELT 4022 Internship in Dental Laboratory Operations
8.0 Semester Credit Hours
This course provides the student the opportunity to observe/work in dental laboratory operations settings. The laboratory is required to allow the student to shadow managers and observe their daily job functions. The laboratory is required to allow the student to complete a pre-approved assignment based on the lab’s operations.

DELT 4090 Special Topics
1.0–4.0 Semester Credit Hours
This course is arranged through department faculty. The course topics vary according to student interest. Semester hours are variable and are assessed per topic. This course is offered in the Senior year and may be repeated for credit.

DELT 4091 Independent Study
1.0–4.0 Semester Credit Hours
This course is arranged through department faculty. The student is required to conduct an independent research and writing project under the direction of faculty. Semester hours are variable and are assessed per topic. This course is offered in the Senior year and may be repeated for credit.

DELT 4914 Dental Laboratory Operation and Production Seminar
3.0 Semester Credit Hours
In this course, students participate in problem-oriented discussion sessions designed around simulated and/or actual case experiences. Decision-making, critical thinking, and communication-skills exercises are integrated into these shared-experiences sessions.
**EMERGENCY HEALTH SCIENCES**

**The Profession**

Paramedics and EMTs have fulfilled prescribed requirements by a credentialing agency to practice the art and science of out-of-hospital medicine in conjunction with medical direction. Through performance of patient assessments and providing medical care, their goal is to prevent and reduce mortality and morbidity due to illness and injury. Paramedics primarily provide care to emergency patients in an out-of-hospital setting.

Paramedics possess the knowledge, skills, and attitudes consistent with the expectations of the public and the profession. Paramedics recognize that they are an essential component of the continuum of care and serve as linkages among health resources. Paramedics strive to maintain high-quality, reasonable-cost health care by delivering patients directly to appropriate facilities. As advocates for patients, paramedics seek to be proactive in affecting long-term health care by working in conjunction with other provider agencies, networks, and organizations.

The emerging roles and responsibilities of the Paramedic include public education, health promotion, and participation in injury and illness prevention programs. As the scope of service continues to expand, the Paramedic will function as a facilitator of access to care, as well as an initial emergency medical treatment provider.

**Programs in the Department of Emergency Health Sciences**

The Department of Emergency Health Sciences offers certificate programs for EMT-Basic and EMT-Paramedic that meet or exceed national curriculum standards. The department also offers a Bachelor of Science in Emergency Health Sciences degree completion 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), 1248 Harwood Road, Bedford, Texas 76021-4244, and by the Texas Department of Health, Bureau of Emergency Management, 1100 W. 49th Street, Austin, Texas 78756-3199.

**EMT-Basic**

Classroom instruction covering 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.

**EMT-Paramedic**

Classroom instruction covering 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. Graduates of the program are eligible to take the NREMT-Paramedic certification examination.

**Note:** EMT-Basic certified applicants who have successfully completed the first two semesters of the Paramedic program may apply for state or National Certification at the EMT-Intermediate Level.

**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, with students being required to attend one capstone course in San Antonio in a one-week format.

The baccalaureate degree offers additional opportunities to practice in the field of pre-hospital 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 a more enlightened 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.

The purpose of the Emergency Health Sciences degree is to 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.

**Application and Admission**

Application for admission to Emergency Health Sciences certificate and degree programs may be completed at [https://www.applytexas.org/adap/c/ComApp-WBX](https://www.applytexas.org/adap/c/ComApp-WBX). Detailed information about application and admission is available in the School of Allied Health Sciences Applicant Viewbook. Information is also available from the Allied Health Welcome Center at (866) 222-5921, 972-200-0206, or e-mail [EHSapp@utdallas.edu](mailto:EHSapp@utdallas.edu).
Completion of the Texas Success Initiative (TSI) is not required for the EMT-Basic and EMT-Paramedic certificate programs. Requirements are listed below:

**EMT-Basic Admission Requirements**
- 18 years of age or older by the course completion date
- High school diploma from an accredited school, or a GED by the course completion date
- Current CPR certification

**EMT-Paramedic Admission Requirements**
- Current Texas or national certificate as an EMT-Basic
- 18 years of age or older by the program completion date
- High school diploma from an accredited school, or a GED by the program completion date
- Current CPR certification

**Bachelor of Science in Emergency Health Sciences**
- 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 at another Texas public college or university, or 42 semester credit hours of coursework fulfilling the core curriculum with a minimum grade of C in each course (see “UTHSCSA Core Curriculum” in this Catalog); some core curriculum courses may be taken concurrently with the degree program, with faculty approval
- Cumulative grade point average of at least 2.0 in all college coursework

**Application Deadlines**
The applications, copy of current state or national EMT (for application to the Paramedic program) or Paramedic certificate (for application to the bachelor’s degree program), and official, sealed transcripts from high schools and colleges/universities attended must be submitted to the Registrar by the dates below:
- June 1 for August enrollment (Fall semester)
- November 1 for January enrollment (Spring semester)
- April 1 for May enrollment (Summer semester), EMT-Basic only

Applications for certificate and degree programs are reviewed as they are received.

**Application Review**
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.

**General Policies and Information**

**Advancement, Probation, and Dismissal**
Students are responsible for knowing and observing the University’s “Regulations Governing Student Conduct and Discipline” and the Rules and Regulations of the Board of Regents of the University of Texas System. Copies of the regulations are available from the Office of Student Services or from the department chair.

A satisfactory rate of progress toward the degree or certificate is determined by the student’s advisor, preceptor (where applicable), program director, and Committee on Allied Health Studies according to the standards described below and in published course syllabi and course manuals. Students may be suspended, dismissed, and/or refused re-admission at any time if circumstances of an ethical, legal, moral, health, social, psychomotor skill development, or academic nature are considered to justify such action.

1. **Performance Review**
A student’s performance is regularly reviewed by the course director and program director. The course director determines whether the student is progressing satisfactorily or whether a warning letter from the program director is indicated. Letters specify courses in which the student is performing unsatisfactorily and require that the student meet with the course director to assist in remediation strategies. Students are responsible for arranging instructor counseling and assistance in remedying any academic deficiencies.

2. **Promotion Recommendations**
At semester’s end or at other designated points in the curriculum, the program director determines the student’s promotion status. In making these determinations, the program director evaluates several aspects of the student’s performance: (1) course grade(s), (2) attendance record, (3) professional behaviors, and (4) psychomotor skill development. The program director may assess extenuating circumstances that have affected student progress. The program director’s recommendations will be forwarded to the department chair. Students may receive the following progression designations:

- **Unconditional Advancement** - A student may be considered for unconditional advancement if the student:
  A. achieves a minimum grade-point average of 2.0 for each semester;
  B. successfully completes all prescribed courses and semester requirements;
  C. earns a minimum grade of C, P (Pass), or S (Satisfactory) in all courses; and
  D. exhibits professional behavior during all phases of the program.

- **Probationary Advancement** - A student may be considered for advancement while on probation if the student:
  A. has withdrawn from a prescribed course in the curricu-
A student performing at an unsatisfactory level will receive written notification of his/her status from the department chair. The student must earn a satisfactory grade in each course in order to remain in the program. A student who receives an unsatisfactory grade in any course may be required to repeat that course.

Dismissal - Dismissal from the program may be recommended if a student receives an unsatisfactory grade(s) in:

A. two or more courses in one semester,
B. a course being repeated or remediated,
C. any course taken while on probation,
D. if the semester GPA falls below 2.0, or
E. if the student demonstrates serious unprofessional behaviors with faculty, staff, peers, or patients.

The program director will consider all areas listed above under Promotions Recommendations. The program director has the right to make alternate promotion recommendations deemed appropriate.

Advisement

Program directors, course directors, and faculty serve as student advisors. Advisors assist students in solving problems and/or finding alternative options; provide advice and opinions, facts or information; and help students understand school and university policies. 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. The student may choose their advisor and may change advisors on a yearly basis, or at the discretion of the department chair.

Attendance

Attendance for all classes, lectures, laboratory, and skills are mandatory and attendance will be taken each class. Verification of the reason for the absence may be required. Students are responsible for notifying a course faculty member if they are going to be tardy or absent from class at any time. This notification should be done prior to the beginning of the class or clinical assignment and should be done each day of absence or tardiness. Excused absences are handled on an individual basis by the course director, EMS course coordinator, or department chair, but are generally limited to the following: illness, death or illness in the immediate family, major personal problem/issue. Unexcused absences, excessive excused absences, or excessive tardiness may be considered sufficient cause for failure. Other attendance requirements may be established by the instructor for individual courses and are outlined in course syllabi and course manuals.

Auditing Courses

Certificate and degree program courses are available for audit for the purpose of obtaining continuing education hours for EMT recertification requirements. Auditors are authorized only to sit in on program lectures; they may not attend skills practice labs, clinical or ambulance internships. Registration is processed through the Registrar’s office. The symbol AU is entered on the student’s official transcript, upon successful completion of the course.

Credit by Examination

The Department of Emergency Health Sciences allows certified/licensed EMS personnel to obtain college credit for their EMT-Basic through EMT-Paramedic coursework obtained from the UTHSCSA program prior to its awarding college 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.

Procedure for Obtaining Credit by Examination - Students who wish to obtain credit by examination should:

1. Submit an application and application fee to the Allied Health Registrar’s office, and indicate on the application that the applicant wishes to obtain credit by examination.
2. Select the courses and credit hours from the list below.
3. Contact Department of Emergency Health Sciences at (210) 567-8760 to verify past enrollment and to schedule examination dates and times.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
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</thead>
<tbody>
<tr>
<td>EMSP 1160</td>
<td>EMT-Basic Clinical</td>
<td>1.0</td>
</tr>
<tr>
<td>EMSP 1161</td>
<td>Paramedic Clinical I</td>
<td>1.0</td>
</tr>
<tr>
<td>EMSP 1162</td>
<td>Paramedic Clinical II</td>
<td>1.0</td>
</tr>
<tr>
<td>EMSP 1334</td>
<td>Introduction to Advanced Practice</td>
<td>3.0</td>
</tr>
<tr>
<td>EMSP 1355</td>
<td>Trauma Management</td>
<td>3.0</td>
</tr>
<tr>
<td>EMSP 1356</td>
<td>Patient Assessment &amp; Airway Management</td>
<td>3.0</td>
</tr>
<tr>
<td>EMSP 1401</td>
<td>EMT-Basic</td>
<td>5.0</td>
</tr>
<tr>
<td>EMSP 2143</td>
<td>Assessment Based Management</td>
<td>1.0</td>
</tr>
<tr>
<td>EMSP 2160</td>
<td>Paramedic Clinical III</td>
<td>1.0</td>
</tr>
<tr>
<td>EMSP 2238</td>
<td>EMS Operations</td>
<td>3.0</td>
</tr>
<tr>
<td>EMSP 2244</td>
<td>Cardiology</td>
<td>2.0</td>
</tr>
<tr>
<td>EMSP 2248</td>
<td>Emergency Pharmacology</td>
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<tr>
<td>EMSP 2261</td>
<td>Paramedic Clinical IV</td>
<td>1.0</td>
</tr>
<tr>
<td>EMSP 2330</td>
<td>Special Populations</td>
<td>2.0-3.0</td>
</tr>
<tr>
<td>EMSP 2334</td>
<td>Medical Emergencies</td>
<td>3.0-4.0</td>
</tr>
</tbody>
</table>

Previous professional employment can potentially be accepted for EHS clinical courses. 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.

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only during regularly scheduled course offerings in order to receive credit.

**Graduation Requirements**

The Certificate in EMT-Basic, Certificate in EMT-Paramedic, or Bachelor of Science in Emergency Health Sciences is awarded upon the satisfactory completion of prescribed academic programs, recommendation of the Emergency Health Sciences Committee of Allied Health Studies, School of Allied Health Faculty Council, 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 certificate or bachelor's of science degree program. Completion of the total unit requirement with passing grades does not necessarily assure candidates a recommendation for graduation. The Faculty Council may refuse to recommend any student who has not:

1. Met all financial indebtedness to UTHSCSA
2. Independently done all her/his work in the schools' facilities
3. Exhibited those physical, ethical, and mental qualities necessary for a career as an EMS professional

Certificates or diplomas are awarded in formal public ceremonies held by UTHSCSA typically at the end of the Spring semester.

In addition to the requirements above, an official Department of Emergency Health Sciences Completion Certificate is required for graduates of the EMT-Basic and EMT-Paramedic program to be eligible for state and/or national EMS certification examinations or for proof of continuing education.

**Professional Attire**

Specific requirements for professional attire are listed in course syllabi and course manuals. UTHSCSA identification badges are to be worn while on campus for any reason and in all clinical/field rotations. The following general policies apply:

For both clinical and field internships, watches with a sweep second hand or digital watches, and wedding bands are allowed. NO other jewelry is to be worn. Name tags issued by the UTHSCSA are to be worn in clear view at all times. Male students are to be clean-shaven, or beard neatly trimmed. Long hair must be secured and off the collar. Fingernails should be trimmed and plain in appearance.

**Clinical Internship**

All EHS students must observe the following dress code during clinical (hospital) internships. Grey scrubs. Grey scrubs, purchased by the student, are to be worn during all rotations. Students reporting to rotations inappropriately dressed will be sent home immediately and will have to reschedule the missed rotation.

**Field Internship**

EHS students are to observe the following dress code during field (ambulance) internships. San Antonio Fire Department students will wear SAFD uniforms. All other students wear a buttoned, plain white shirt; dark blue or black trousers; sturdy, closed toe, dark colored shoes, preferably black. No high heels, sandals, tennis shoes, T-shirts, blue jeans, scrubs or military uniforms are to be worn in the field. Uniforms from other EMS providers are not allowed.

**Program Costs**

Total program costs for the certificate and degree programs are shown below. All figures are approximate.

<table>
<thead>
<tr>
<th>Program</th>
<th>Tuition and Fees</th>
<th>Health Insurance*</th>
<th>Other Costs**</th>
</tr>
</thead>
<tbody>
<tr>
<td>EMT-Basic</td>
<td>$925</td>
<td>$430</td>
<td>$350</td>
</tr>
<tr>
<td>EMT-Paramedic</td>
<td>$4650</td>
<td>$1500</td>
<td>$650</td>
</tr>
<tr>
<td>Bachelor of Science</td>
<td>$6600</td>
<td>$1500</td>
<td>$475</td>
</tr>
</tbody>
</table>

* Students who provide proof of health insurance that meets state requirements are not required to pay the health insurance fee
** Other Costs include textbooks, examination fees, equipment, etc.

An Out-of-State Instructional Fee of $165.50 per semester credit hour is charged to non-resident students living outside of Texas who are enrolled in on-line courses offered in the Bachelor of Science degree program. Regular tuition is not charged.

**Program Curricula**

**EMT-Basic**

The EMT-Basic certificate program is offered during fall, spring, and summer semesters. Classes meet for lectures and skills practice from 1 to 5 p.m., 3 days per week. In addition, 48 hours of clinical rotations are required during the semester.

**EMT-Basic Curriculum**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>EMSP 1401</td>
<td>EMT-Basic</td>
<td>5.0</td>
</tr>
<tr>
<td>EMSP 1160</td>
<td>EMT-Basic Clinical</td>
<td>1.0</td>
</tr>
</tbody>
</table>

Program Total 6.0

**EMT-Paramedic**

The EMT-Paramedic certificate program consists of 33 semester credit hours and is offered with full-time and part-time options:

Full-Time Option – Offered during the Fall and Spring semesters. Classes meet Tuesday, Wednesday, Thursday from 8:00 am to 5:00 p.m.; clinical rotations are scheduled 8:00 am to 4:00 p.m. or 4:00 p.m. to 12:00 am on Monday and Friday (some weekends are available if needed).

**Semester One**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>EMSP 1161</td>
<td>Clinical I</td>
<td>1.0</td>
</tr>
<tr>
<td>EMSP 1162</td>
<td>Clinical II</td>
<td>1.0</td>
</tr>
<tr>
<td>EMSP 1334</td>
<td>Intro. to Advanced Practice</td>
<td>3.0</td>
</tr>
</tbody>
</table>
EMSP 1356 Patient Assessment & Airway Management 3.0
EMSP 2248 Emergency Pharmacology 2.0
EMSP 2301 Anatomy & Physiology for Paramedic Practice 3.0
EMSP 2444 Cardiology 4.0

Semester Total 17.0

Semester Two
EMSP 1355 Trauma Management 3.0
EMSP 2160 Clinical III 1.0
EMSP 2238 EMS Operations 3.0
EMSP 2243 Assessment Based Management 2.0
EMSP 2261 Clinical IV 1.0
EMSP 2330 Special Populations 3.0
EMSP 2334 Medical Emergencies 3.0

Semester Total 16.0

Program Total 33.0

Part-Time Option – The part-time option consists of 33 semester credit hours. Students may enroll in the full time courses as part-time students. This option takes four semesters to complete. Courses may be offered in a different sequence that listed below.

Part time courses offered to contracted fire department and EMS services off-campus may be open to other students on a space-available basis. These courses generally take one year to complete and meet several weekends a month.

Semester One
EMSP 1161 Clinical I 1.0
EMSP 1334 Introduction to Advanced Practice 3.0
EMSP 1356 Patient Assessment & Airway Mgt. 3.0
EMSP 2301 Anatomy & Physiology for Paramedic Practice 3.0

Semester Total 10.0

Semester Two
EMSP 1355 Trauma Management 3.0
EMSP 2238 EMS Operations 3.0

Semester Total 6.0

Semester Three
EMSP 1162 Clinical II 1.0
EMSP 2248 Emergency Pharmacology 2.0
EMSP 2444 Cardiology 4.0

Semester Total 7.0

Semester Four
EMSP 2160 Clinical III 1.0
EMSP 2243 Assessment Based Management 2.0
EMSP 2261 Clinical IV 1.0
EMSP 2330 Special Populations 3.0
EMSP 2334 Medical Emergencies 3.0

Semester Total 10.0

Program Total 33.0

Bachelor of Science in Emergency Health Sciences
The entire course of study includes courses required for admission (see “Application and Admission,” above) and emergency health sciences courses. The entire curriculum consists of 126 semester credit hours.

EMSP 3001 Foundations of Emergency Health Sciences 3.0
EMSP 3002 Professional Orientation and Legal Foundation 3.0
EMSP 3003* Critical Care Medicine 3.0
EMSP 3004 Pharmacology I for EMS Providers 3.0
EMSP 3006 Electrocardiology in Emergency Medical Sciences 3.0
EMSP 3007 Human Diseases 3.0
EMSP 3011 EMS Informatics 3.0
EMSP 3012 Behavioral Medicine and Psychopathology 3.0
EMSP 3031 Independent Study 1.0-4.0
EMSP 3041 Current Research in Emergency Health Sciences 3.0
EMSP 4001** Extended Provider Skills and Preventative Medicine 3.0
EMSP 4002 Pathophysiology for EMS Providers 3.0
EMSP 4003* Flight Medicine 3.0
EMSP 4004 Management of Disasters and Hazardous Materials 3.0
EMSP 4005 EMS Systems Management and Budgeting 3.0
EMSP 4006 Educational Issues in Emergency Health Sciences 3.0
EMSP 4007 Human Resource Development 3.0
EMSP 4008 Leadership Development 3.0
EMSP 4009 Pediatric Advanced Life Support (PALS) 1.0
EMSP 4012 Pharmacology II for EMS Providers 3.0
EMSP 4021 Internship: Advanced Practitioner in EHS 6.0

* Available only on the UTHSCSA campus.
** Capstone course offered only on the UTHSCSA campus; all students are required to enroll in this course.

Course Descriptions
EMSP 1149 Pre-Hospital Trauma Life Support 1.0 Semester Credit Hour
This course is an intense skill development in emergency field management, systematic rapid assessment, resuscitation, packaging and transportation of patients. Includes experiences necessary to meet initial certification requirements.

EMSP 1160 EMT-Basic Clinical 1.0 Semester Credit Hour
This course is a health-related work-based learning experience that
provides the opportunity for the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional.

**EMSP 1161 Paramedic Clinical I**
*1.0 Semester Credit Hour*

**EMSP 1162 Paramedic Clinical II**
*1.0 Semester Credit Hour*

**EMSP 1334 Introduction to Advanced Practice**
*3.0 Semester 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 1355 Trauma Management**
*3.0 Semester 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 1356 Patient Assessment & Airway Management**
*3.0 Semester 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.

**EMSP 1401 EMT-Basic**
*5.0 Semester Credit Hours*
This course is an introduction to the level of EMT Basic. Includes all 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**
*1.0 Semester Credit Hour*
Instruction presented provides students with guidelines published by the American Heart Association for the initial management of the cardiopulmonary arrest patient.

**EMSP 2143 Assessment Based Management**
*1.0 Semester Credit Hour*
This course is the capstone course of the EMSP program. Designed to provide for teaching and evaluating comprehensive assessment based patient care management. At the completion of this module, the student will be required to integrate pathophysiological principles and assessment findings to formulate a field impression and implement a treatment plan for patients with common complaints.

**EMSP 2160 Paramedic Clinical III**
*1.0 Semester Credit Hour*

**EMSP 2160 Paramedic Clinical IV**
*1.0 Semester Credit Hour*
EMSP 1161, 1162, 2160

A method of instruction providing detailed education training, and work-based experience with direct patient contact/care at a clinical site.

**EMSP 2238 EMS Operations**
*3.0 Semester Credit Hours*
This course is a course of study to prepare the paramedic to safely manage medical incidents, rescue situations, hazardous materials and crime scenes.

**EMSP 2243 Assessment Based Management**
*2.0 Semester Credit Hours*
This course is designed to provide for teaching and evaluating comprehensive assessment-based patient care management.

**EMSP 2244 Cardiology**
*2.0 Semester Credit Hours*
Prerequisite EMSP 1244

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. At the completion of this module, the student will be required to integrate pathophysiological principles and assessment findings to formulate a field impression and implement a treatment plan for the cardiac patient.

**EMSP 2248 Emergency Pharmacology**
*2.0 Semester Credit Hours*

This course is a comprehensive course covering all aspects of the utilization of medications in treating emergencies. The course is designed to compliment 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 2261 Paramedic Clinical IV**
*2.0 Semester Credit Hours*

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 2301 Anatomy & Physiology for Paramedic Practice**
*3.0 Semester 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 2330 Special Populations**
*2.0 or 3.0 Semester Credit Hours*

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 2334  Medical Emergencies  
**3.0 Semester Credit Hours**  
**Prerequisite:** EMSP 1134  
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, the student 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 2444  Cardiology  
**4.0 Semester Credit Hours**  
This course is a detailed study of knowledge and skills necessary to reach competence in the assessment and management of patients with cardiac emergencies.

EMSP 3001  Foundations of Emergency Health Sciences  
**3.0 Semester 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 3002  Professional Orientation & Legal Foundations  
**3.0 Semester 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 3003  Critical Care Medicine  
**3.0 Semester 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 I for EMS Providers  
**3.0 Semester 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  Electrocardiography in Emergency Medical Sciences  
**3.0 Semester Credit Hours**  
A study of the fundamentals of electrocardiography, 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  
**3.0 Semester 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 3008  Medical Informatics  
**3.0 Semester 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 3009  Behavioral Medicine and Psychopathology  
**3.0 Semester 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 3031  Independent Study  
**1.0–4.0 Variable Semester 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  
**3.0 Semester 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 4001  Extended Provider Skills and Preventative Medicine  
**3.0 Semester 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 have the opportunity to 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, including integration of data obtained from the newer and more sophisticated modes of diagnostic technology.

EMSP 4002  Pathophysiology for EMS Providers  
**3.0 Semester 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  
**3.0 Semester 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 Hazardous Materials  
**3.0 Semester 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 EMSP Systems Management and Budgeting**

*3.0 Semester Credit Hours*

This course is designed to identify and discuss various forms and trends of EMSP Systems management. From the volunteer service to the large, urban EMSP system, the learner will have the opportunity to become familiar with the various aspects of America’s EMSP services. Budgeting and financial management skills and understanding necessary to manage emergency health systems will be emphasized.

**EMSP 4007 Human Resource Development**

*3.0 Semester 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 EMSP 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**

*3.0 Semester 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.

**EMSP 4009 Pediatric Advanced Life Support (PALS)**

*1.0 Semester 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.

**EMSP 4012 Pharmacology II for EMS Providers**

*3.0 Semester Credit Hours*

This course is designed to provide the learner with 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, cardiovascular and parasitic diseases. Online course. Note: EMSP 3004 Pharmacology I is NOT a prerequisite for this course.

**EMSP 4021 Internship: Advanced Practitioner in EHS**

*6.0 Semester Credit Hours*

Semester internship/capstone experience by arrangement.

**INTD 4006 Professional Issues**

*1.0 Semester Credit Hour*

This interdisciplinary course provides an overview of ethical issues facing allied health professionals.
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 which 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.

Master of Occupational Therapy
Program Options

Traditional MOT (Full-time, San Antonio, Texas)
The Master of Occupational Therapy (MOT) is a 30-month program that begins in the summer and consists of 105–110 semester credit hours, including 20 semester hours (6 months) of full-time clinical fieldwork. A baccalaureate degree is NOT required for admission to the program. Applicants without a baccalaureate degree must complete 27 semester credit hours of Texas core curriculum requirements and 53 semester credit hours of MOT program prerequisites. Upon successful completion of the first year in the program, students will receive the Bachelor of Science in Health Care Sciences degree (BSHSC). Students possessing a baccalaureate degree on admission who do not wish to be awarded the BSHSC are exempt from core curriculum and must have completed only the MOT program prerequisites (Table 1).

MOT (Part-time)
The part-time track extends the MOT curriculum over six additional semesters. It is intended for students who wish to take a reduced course load each semester (average 8 semester credit hours) to accommodate work, family, or other commitments. Students must apply specifically for this track and receive approval from the admissions committee. Admission requirements are the same as for the MOT full-time program. Some coursework may be waived for students who are Certified Occupational Therapy Assistants (COTAs) and are determined on an individual basis.

BSOT to MOT (San Antonio, Texas)
The BSOT to MOT (Master of Occupational Therapy) program is an advanced transfer option for professional Occupational Therapists who have a Bachelor's degree in occupational therapy (BSOT) and wish to earn an entry-level MOT degree. Students can select a part-time or full-time plan that may begin at any semester. Courses are taken on the UTHSCSA campus and through Web-based technology. Students transfer prerequisite and professional BOT courses into a program and take an additional 36 credits (core and elective courses).

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 which is required for practice in most states. After successful completion of this examination, the individual will be a Registered Occupational Therapist (OTR). A felony conviction may affect a graduate's ability to sit for the NBCOT certification examination or to attain state licensure.

The MOT program is accredited through the Accreditation Council for Occupational Therapy Education (ACOTE). For further information about the accreditation process contact:

American Occupational Therapy Association
4720 Montgomery Lane/PO Box 31220
Bethesda, MD 20824-1220
Telephone: (301) 652-AOTA

Application and Admission

Application for admission to Master of Occupational Therapy program may be completed at applytexas.org/adappc/commonapp.WBX. Detailed information about application and admission is available in the School of Allied Health Sciences Applicant Viewbook, available from the Allied Health Welcome Center at (866) 802-6288 (toll-free) or (210) 567-8744, and online at http://studentservices.uthscsa.edu/Publications/allied.html. Completed application, application fee, official transcripts, and supporting documents must be submitted to the Registrar between September 1 and February 1 for summer semester admission into the Master of Occupational Therapy program. Students admitted to the BSOT-to-MOT program option may begin any semester. The application deadline for the BSOT-to-MOT program is one month before the semester begins.

Admission Factors (Non-Academic)

In addition to the academic factors listed above, the following non-academic factors are considered for selecting students for the Master of Occupational Therapy program:

- Bilingual ability
- Race/ethnicity/gender and other diversity factors
- Employment history
- Leadership positions held
- Public/community service or “volunteer” related activities
- Prior experience in providing health care related services
- Extracurricular activities
- Communication skills, as demonstrated in personal interview
General Policies and Information

Advancement, Probation, and Dismissal
Continuation as an Occupational Therapy student is dependent on maintenance of a minimum cumulative grade point average of 3.0 (B) for all courses. 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 or continues on probation will also be subject to dismissal. All decisions concerning probation or dismissal will be based on recommendations from the Committee on Allied Health Studies. 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.

Attendance
Attendance at all lectures, laboratories, field trips, and class-related events is strongly recommended in order for the student to successfully complete this program. However, mandatory attendance for a given course is the prerogative of the instructor who will announce the manner in which unexcused absences will affect the student's grade.

In case of illness, the student should call the Occupational Therapy Office (567-8881) by 8:15 a.m. to leave a message for the instructor that he/she will not be in attendance. Calls to the program office at a time other than office hours may reach voice mail.

Faculty Advisors
Each student in the program is assigned an Academic Advisor. The student has the right to request a different faculty advisor if the student feels it is in her/his best interest.

The Faculty Advisor is available by appointment to discuss academic problems and to suggest possible remedies. (The student will confer with the instructor prior to making an appointment with the advisor.)

The advisor will be able to acquaint students with the available student services and, if appropriate, to refer the student to such services. The advisor will follow the student's academic progress and be available for consultation at pre-registration and registration. He or she will provide advice and counsel regarding progress toward meeting graduation and certification examination requirements and to share the benefit of her/his knowledge concerning career opportunities and other matters related to the profession.

Grades in Clinical Courses
Some Level I Fieldwork courses and both of the Level II Fieldwork courses are graded S (Satisfactory) or U (Unsatisfactory). Clinical grades are not used in calculating the grade

<p>| TABLE 1 |</p>
<table>
<thead>
<tr>
<th>MOT Program Prerequisites</th>
<th>Semester Credit Hours</th>
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<tbody>
<tr>
<td>Human Anatomy w/lab or A&amp;P I</td>
<td>4</td>
</tr>
<tr>
<td>Human Physiology w/lab or A&amp;P II</td>
<td>4</td>
</tr>
<tr>
<td>General Biology w/lab</td>
<td>4</td>
</tr>
<tr>
<td>General Chemistry w/lab</td>
<td>4</td>
</tr>
<tr>
<td>Physics or Kinesiology</td>
<td>3</td>
</tr>
<tr>
<td>Psychology (introduction)</td>
<td>3</td>
</tr>
<tr>
<td>Abnormal Psychology</td>
<td>3</td>
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<tr>
<td>Developmental Psychology (lifespan)</td>
<td>3</td>
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<tr>
<td>Sociology and/or Anthropology</td>
<td>6</td>
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<tr>
<td>Statistics</td>
<td>3</td>
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<tr>
<td>English (technical writing)</td>
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<tr>
<td>Medical Terminology</td>
<td>1</td>
</tr>
<tr>
<td>Elective*</td>
<td>12</td>
</tr>
<tr>
<td><strong>TOTAL MOT Program Prerequisite</strong></td>
<td><strong>53</strong></td>
</tr>
</tbody>
</table>

* Recommended elective courses include: Leadership Skills, Public Health, Human Sexuality, Economics, Humanities, Fine Arts, Foreign Language, and Philosophy. Specifically excluded are remediation course work, work from technical institutions, or programs and other course work deemed inappropriate by the department.

All core curriculum courses must be completed with a grade of “C” or better.
point average. Level II fieldwork experiences are graded on a satisfactory/unsatisfactory basis according to the student’s performance, judgment, and attitude as measured by the on-site supervisor using the Fieldwork Performance Evaluation for the Occupational Therapy Student. Criterion scores, as suggested by the American Occupational Therapy Association, are used to determine satisfactory performance.

If a student on Level II fieldwork receives a score below the criterion score on the Fieldwork Performance Evaluation for the Occupational Therapy Student, the student will receive an unsatisfactory grade for the affiliation. The student who fails any Level II affiliation may be subject to dismissal from the program.

**Occupational Therapy Fieldwork**

Fieldwork is an important part of the educational process for becoming an occupational therapist and represents that part of the program during which students have the opportunity to learn clinical skills through observation or experiential learning (Level I Fieldwork); or to apply understanding of theory and techniques through extended, supervised, and evaluated performance (Level II Fieldwork). In either case, these experiences occur away from the Health Science Center at affiliated clinical institutions/sites.

The Academic Fieldwork Coordinator maintains contact with the fieldwork facilities and evaluates them to ensure optimal consistency with theoretical concepts presented during academic coursework. The coordinator assigns pass/fail grades for the Level I and Level II experiences based on the student’s performance, judgement, and attitude as measured by the on-site supervisor using the Fieldwork Evaluation (FWE).

The majority of Level I and Level II Fieldwork sites are located within the State of Texas. Some International Level II Fieldwork sites are available. Notebooks on each fieldwork facility are maintained by the department and can be reviewed by contacting the Academic Fieldwork Coordinator. These information packets describe the setting, objectives, philosophies, and types of patients seen in each facility.

Student placements are reserved many months (and in some cases, up to two years) in advance of a scheduled fieldwork experience. The Academic Fieldwork Coordinator assigns eligible students to specific facilities for Level II fieldwork experiences.

During Level I Fieldwork, 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. 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. This part of the curriculum is graded on a pass/fail basis.

Level II Fieldwork experiences, which follow the completion of prerequisite academic coursework, are completed at sites assigned by the Academic Fieldwork Coordinator. Students must write and mail a letter confirming the fieldwork experience assignment dates to the Fieldwork Supervisor at least one month in advance of the starting date and must telephone a confirmation two weeks before the starting day. The student also is responsible for making any required living arrangements, obeying policies and procedures of the facility providing the fieldwork experience, submitting required assignments and evaluations, etc. Specific details are available from the Department Chair.

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 and objectives. While students are given an opportunity to express their preferences for location of placements, the program cannot grant assurances that students will be placed in their setting of choice. Students should be prepared to incur expenses for transportation, food, and lodging during required fieldwork assignments.

The Accreditation Council for Occupational Therapy Education (ACOTE) requires completion of all fieldwork within 24 months following completion of academic preparation. This requirement assures continuity of academic concepts.

**Principles of 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. AOTA members are expected to abide by the ethics adopted by the profession. The Occupational Therapy Department at UTHSCSA also subscribes to this ethical code and expects the behaviors of matriculating students to be consistent with these principles.

**Professional Attire**

Appropriate professional attire is expected to be worn by students at all times, particularly when visiting fieldwork sites or interacting with visitors or patients. Discretion as to choice of attire is determined by the student. Clean, white lab coats are recommended for laboratory and clinical settings. Patches identifying the program will be worn on lab coats. Name tags will be worn in all student roles. Dress codes specified by instructors and fieldwork centers take precedence over general department guidelines.

**Program Costs**

Total costs for in-state tuition and fees, parking permits, health and liability insurance, etc., are approximately $21,000. In addition, costs for other expenses, such as textbooks, course manuals, equipment, uniforms or scrubs, and supplies are approximately $2,000 for the entire program. The full-time clinical fieldwork experiences included in the curriculum may require that students locate outside of
San Antonio for the duration of the two three-month 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.

Non-resident students are subject to additional tuition costs, which may be found under “Financial Information” in this Catalog.

Standards of Practice
The American Occupational Therapy Association (AOTA) 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.

Program Curricula
Master of Occupational Therapy Curriculum
The Master of Occupational Therapy curriculum (professional phase) consists of 105–110 semester credit hours taken over 8 semesters.

Pre-professional Requirements 80 hours
Professional Requirements 105–110 hours
Total 185–190 hours

First Year

<table>
<thead>
<tr>
<th>Credit</th>
<th>Summer Semester</th>
<th>Hours</th>
<th>Semester Total</th>
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<tbody>
<tr>
<td>CSBL 5013 Gross Anatomy</td>
<td>6.0</td>
<td>6.0</td>
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<tr>
<td>OCCT 5001 Theoretical Foundations in OT</td>
<td>2.0</td>
<td>2.0</td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>8.0</strong></td>
<td><strong>8.0</strong></td>
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(OCCT 5091 Special Topics or Electives 1.0–6.0 must be taken before Level II fieldwork; may be taken in Fall, Spring, or Summer semesters.)

Fall Semester

<table>
<thead>
<tr>
<th>Credit</th>
<th>Fall Semester</th>
<th>Hours</th>
<th>Semester Total</th>
</tr>
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<tbody>
<tr>
<td>OCCT 5010 Human Occupation across the Life Span</td>
<td>3.0</td>
<td>3.0</td>
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<tr>
<td>OCCT 5023 Research I: Assessment &amp; Statistics</td>
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<tr>
<td>OCCT 5012 Application of Neural Systems to Occupation</td>
<td>4.0</td>
<td>4.0</td>
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<td>OCCT 5013 Appl. Biomechanics of Movement</td>
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<td>3.0</td>
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<td>OCCT 5014 Professional Communication in OT</td>
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Spring Semester

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<td>OCCT 5020 OT Process: Neonate-Preschool</td>
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<tr>
<td>OCCT 5021 Service Delivery Systems I</td>
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<td>2.0</td>
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<td>OCCT 5022 Environmental Technologies I</td>
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<td></td>
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<tr>
<td>OCCT 5011 Research II: Intro. to Research &amp; Design</td>
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Other Students

BSOT to MOT Curriculum
Students in the BSOT to MOT program option transfer prerequisite and professional BSOT courses into the program and complete an additional 15 semester credit hours of occupational therapy core and 21 semester credit hours of elective courses. This program is for Registered Occupational Therapists (OTRs) only. Occupational therapy core courses are listed below. Elective courses may be selected from other courses included in the MOT curriculum.
Course Descriptions

CSBL 5013  Gross Anatomy  
6.0 Semester Credit Hours
This course will cover dissection and regional study of human gross anatomy with emphasis on arthrology, osteology, gross neuromuscular and vascular anatomy, regional and general relationships between structures, and applied anatomy relevant to the practice of occupational therapy. Human materials fee: $300.00.

OCCT 5001  Theoretical Foundations in Occupational Therapy  
2.0 Semester 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  
3.0 Semester 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 5010  Human Occupation Across the Life Span  
3.0 Semester 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 I: Intro. to Research & Design  
3.0 Semester 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  
4.0 Semester 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  
3.0 Semester 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  
2.0 Semester 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  
4.0 Semester 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 I  
2.0 Semester 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 I  
2.0 Semester 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 I: Assessment and Research Statistics  
3.0 Semester Credit Hours
This course focuses on the application of descriptive and inferential statistics in research studies in the health sciences. Students are provided the opportunity to gain a base of knowledge that will enable them to understand, interpret, and evaluate statistical results; work with a consultant statistician; and use statistical software to enter, analyze, and summarize data. Teaching methods include lecture, Web-supported technology, and problem-based learning groups.

OCCT 5024  Clinical Medicine I  
1.0 Semester Credit Hour
This course is an overview of the manifestations of developmental disabilities in pediatric patients and their medical and surgical management.

OCCT 5025  General Pathology  
3.0 Semester Credit Hours
General concepts and diseases specific to organ systems of the body.
with emphasis placed on those pathologies encountered in clinical occupational therapy practice.

**OCCT 5070  Level I Fieldwork: Life Span**  
*1.0 Semester Credit Hour*  
This course is an opportunity for the student to observe, identify, and associate areas of occupation, performance skills, performance patterns, client factors, activity demands, and contexts with age-specific populations through visits to community settings.

**OCCT 5071  Level I Fieldwork: Neonatal—Preschool**  
*1.0 Semester Credit Hour*  
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 5072  Level I Fieldwork: Community Agencies**  
*2.0 Semester Credit Hours*  
This course provides an opportunity for the student to observe and participate in the ongoing activities of a community agency. The student is responsible for selecting a community agency of interest to her/him, and for collaboratively developing learning experiences with agency personnel.

**OCCT 5073  Community Project**  
*4.0 Semester Credit Hours*  
In conjunction with the community agency selected in OCCT 5072 Level I 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**  
*1.0–6.0 Semester 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, Spring, or Summer sessions.

**OCCT 6020  Occupational Therapy Process: School Age**  
*4.0 Semester Credit Hours*  
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, prehension and handwriting, activities of daily living, school tasks, and transitional skills.

**OCCT 6021  Service Delivery Systems II**  
*2.0 Semester 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 pre-vocational and supported employment settings.

**OCCT 6022  Environmental Technologies II**  
*3.0 Semester 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 II**  
*1.0 Semester 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 Occupational Therapy**  
*4.0 Semester 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**  
*3.0 Semester 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  Occupational Therapy Process: Adult Biomechanical Dysfunctions**  
*4.0 Semester 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 III**  
*3.0 Semester 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 6032  Environmental Technologies III**  
*2.0 Semester Credit Hours*  
This course will include the biomechanical and compensatory considerations for the human body and environmental interfacing across the life span. Included are seating and positioning systems, technologies for personal mobility, and work environment interfaces.

**OCCT 6034  Professional Issues**  
*1.0 Semester Credit Hour*  
Using a workshop format, this interdisciplinary course will provide an overview of theoretical issues in the health care profession.
OCCT 6035  Concepts & Practices in Teaching
3.0 Semester 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  Occupational Therapy Process: Adult Neuromuscular Dysfunctions
1.0 Semester Credit Hour
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 III
1.0 Semester Credit Hour
Clinical manifestations of adult neuromuscular disorders will be presented. The medical and surgical management for these conditions will be described.

OCCT 6070  Level I Fieldwork: School Age
1.0 Semester 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, concurrent with the OT Process: School Age, & Service Delivery II.

OCCT 6072  Level I Fieldwork: Adult & Geriatric Settings
2.0 Semester Credit Hours
Students will have the opportunity to observe, participate, and critique the occupational therapy process with adults and older adults within community and rehabilitation settings.

OCCT 6073  Level II Fieldwork: Developmental Dysfunction
10.0 Semester 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 II Fieldwork: Adult Disabilities
10.0 Semester 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.

INTD 5066  Laughter is the Best Medicine: An Interdisciplinary Elective About Humor, Healing, and Healthcare
1.0 Semester 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 burnout, through techniques to enhance coping skills and stress reduction. Student participation and interaction is integral to the content delivery.
PHYSICAL THERAPY

Physical therapy is the assessment, evaluation, treatment, and prevention of physical disability, movement dysfunction, and pain resulting from injury, disease, disability, and other health-related conditions. It is the mission of the physical therapy profession to expand and use its body of knowledge to increase functional ability, decrease disability, educate patients/clients, and reduce the financial and personal costs of disability to society. Physical therapists practice in traditional hospital settings, private practice, rehabilitation centers, public and private school settings, home health care, nursing homes, and industry.

The Physical Therapy program is accredited by the Commission on Accreditation in Physical Therapy (CAPTE), 1111 N. Fairfax Street, Alexandria, Virginia 22314.

Master of Physical Therapy Program

The Master of Physical Therapy program (MPT) begins in the fall semester and consists of 95.5 semester credit hours of coursework taken over 7 semesters (30 months). The MPT program includes 24 weeks of full-time clinical affiliations that are completed during summer and fall semesters. Students may be awarded a Bachelor of Science in Health Care Sciences (BSHCS) after successful completion of the first fall and spring semesters if they meet BSHCS requirements including 90 semester credit hours of Texas core curriculum courses (see "UTHSCSA Core Curriculum" in this Catalog) and program prerequisites. Graduates are awarded the Master of Physical Therapy and are eligible to sit for National Physical Therapy Examination (NPTE), 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.

Application and Admission

Application for admission to the Master of Physical Therapy program may be completed at https://www.applytexas.org/applytexas.adappppcommonapp.WBX. Detailed information about application and admission is available in the School of Allied Health Sciences Applicant Viewbook, available from the Allied Health Welcome Center at (866) 802-6288 (toll-free) or (210) 567-8744, and online at http://studentservices.uthscsa.edu/publications/allied.htm. Completed application, application fee, official transcripts, and supporting documents must be submitted to the Registrar between September 1 and November 15 for admission the following fall semester.

Applications are accepted from:

- Applicants without an earned baccalaureate or graduate degree, but who have completed core curriculum and program prerequisite coursework
- Applicants with an earned baccalaureate or graduate degree and have completed program prerequisite coursework

Admission Factors

The following factors are considered in selecting students for the Master of Physical Therapy program:

- Academic achievement
- Employment history, extracurricular activities, and/or community service activities
- Personal statement
- Health care field preparation
- Knowledge of health care environment
- Preparation for a career in physical therapy
- Analytical and problem-solving skills
- Communication and interpersonal skills
- Personal traits, i.e., maturity, leadership potential, time management skills
- Writing skills
- Broad life experiences, e.g., international travel, exposure to other cultures, lived or worked outside the U.S.
- Texas resident or permanent resident alien
- Racial ethnicity

Admission Requirements

Application requirements include:

- Successful completion of Texas core curriculum requirements (for applicants without a baccalaureate degree from a Texas public college or university)
- Successful completion of program prerequisites (see list of prerequisites below)
- Overall grade point average (GPA) of at least 3.0
- Science/Math GPA of at least 3.0
- Knowledge and understanding of physical therapy gained through a minimum of 100 hours of observation, volunteering, or employment in a physical therapy setting; documented using our form*
- Two letters of reference (at least one letter from a licensed physical therapist); documented using our form*
- Personal statement addressing the applicant's goal of becoming a physical therapist (one page typed, single spaced)
- Personal resume including previous work experience, honors and awards, extracurricular organizations, and community service experience
- Official transcripts from all colleges and universities attended

* A Documentation of Experience form and Reference Form may be downloaded from http://studentservices.uthscsa.edu/Publications/allied.html
Program Prerequisites
Applicants without a baccalaureate degree must complete the Texas core curriculum that consists of 42 semester credit hours. Some courses that satisfy core curriculum requirements may also be used to satisfy program prerequisites. For further information see “UTHSCSA Core Curriculum” in this Catalog.

All applicants must complete the program prerequisites below; some program prerequisites will satisfy core curriculum requirements.

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit Hours</th>
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<td>aAnatomy and Physiology I with lab</td>
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<tr>
<td>bAnatomy and Physiology II with lab</td>
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<tr>
<td>bGeneral Biology I with lab</td>
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<tr>
<td>bGeneral Biology II with lab</td>
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<tr>
<td>General Chemistry I with lab</td>
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<td>General Chemistry II with lab</td>
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<tr>
<td>Physics I with lab</td>
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<td>Physics II with lab</td>
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<td>Psychology</td>
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<td>Speech</td>
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<td>Technical Writing</td>
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<td>Electives</td>
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<td>Program Prerequisite Total</td>
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Medical Terminology is recommended as a prerequisite, but is not required prior to admission to the Master of Physical Therapy program. Competency may be demonstrated by credit for such a course taken prior to entry or by passing a competency test administered by the faculty during the first semester of attendance in the program.

a Human or mammalian anatomy and physiology is required. A combined anatomy and physiology course totaling 8 semester credit hours is acceptable.

b Botany, ecology, or environment exclusively are not acceptable.

c Psychology (6 semester credit hours) may include: general/introductory, child or adult development, abnormal behavior, mental health, brain function, addiction, or cognition.

d Statistics may be either math- or psychology-based.

e Electives (13 semester credit hours) may include genetics, psychology of aging, economics, education, philosophy, anthropology, foreign languages, religion, art appreciation, or music appreciation

General Policies and Information

Advancement, Probation, and Dismissal
Continuation as a Physical Therapy student is dependent on maintenance of a minimum grade point average of 3.0 (B) for all courses taken 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 will also be subject to probation or dismissal. The Committee on Allied Health Sciences may recommend: dismissal, academic probation, repetition of the course when next offered, repetition of the year, or other actions as deemed appropriate. If repetition of a course when next offered is recommended, the student may not continue taking subsequent courses in the curriculum until that course is successfully completed. The student who has been dismissed may be readmitted for further study by petition from the CAHS. 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
Attendance at all scheduled classes, laboratories, and clinical sessions is required. Excused absences may be granted in such cases as illness or personal emergency. Verification of the reason for the absence may be required. 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 which is missed.

Dropping Courses
It is mandatory that the sequence of courses in the curriculum be adhered to. 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 prior 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 electives 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 stated criteria may result in one of the following grades:

I (Incomplete) – Student performance is satisfactory on accepted 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 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.

* Competency in medical terminology must be demonstrated by the end of the first semester by earning credit in a course on medical terminology prior to matriculation or passing a competency test administered by the program during the first semester.
Criteria and time frame for removal of grades of I or U 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
Total costs for in-state tuition and fees, parking permits, health and liability insurance, etc. are approximately $21,000. In addition, costs for other expenses, such as textbooks, course manuals, and supplies, are approximately $1,900 for the entire program. Travel and living expenses for local and out-of-town clinical experiences are not included in this estimate.

Non-resident students are subject to additional tuition costs, which may be found under “Financial Information” in this Catalog.

Master of Physical Therapy Curriculum

First Year

Fall Semester* Hours
PHYT 5001 Patient Care I 3.5
PHYT 5005 Therapeutic Exercise 3.0
PHYT 5009 Neuroscience I 3.0
PHYT 5014 Scientific Inquiry I 3.0
PHYT 5017 Principles of Disease in Allied Health Practice 2.0
PHYT 6022 Teaching Practicum 1.0
Semester Total 15.5

Spring Semester
CSBL 5014 Anatomy I 4.5
PHYT 5003 Ethics in Health Care 1.0
PHYT 5011 Patient Care II 4.0
PHYT 5012 Principles of Kinesiology in Physical Therapy 4.0
PHYT 5019 Neuroscience II 3.0
Semester Total 16.5

Second Year

Fall Semester
PHYT 6002 Orthopedics I 5.5
PHYT 6007 Orthotics 1.5
PHYT 6011 Electrophysical Agents 3.5
PHYT 6100 Neurological Case Studies I 1.5
PHYT 6108 Management of the Neurological Patient 4.0
PHYT 6130 Motor Control and Motor Learning 1.5
Semester Total 17.5

Spring Semester
PHYT 5018 Pharmacology in Allied Health Practice 1.0
PHYT 6012 Prosthetics 1.5

Summer Semester
PHYT 5021 Clinical I 9.0
Semester Total 9.0

Third Year

Fall Semester
PHYT 6021 Clinical II 8.0
PHYT 6121 Clinical III 7.0
Semester Total 15.0

Spring Semester
CSBL 6010 Anatomy II 1.5
PHYT 6102 Scientific Inquiry II 2.0
PHYT 6106 Principles of Administration in Physical Therapy 2.5
Semester Total 6.0
Program Total 95.5

Course Descriptions

CSBL 5014  Anatomy I
4.5 Semester Credit Hours
This course provides the basic principles of human anatomy. Students will have the opportunity to learn human anatomy as it relates to function through the study of bones, plastinated specimens, cadaver projections, models, atlas drawings and photographs, and their own bodies. Concentration will be on osteology, arthrology, musculoskeletal, cardiopulmonary, neuromuscular, and basic systems anatomy as they apply to clinical practice. Lab fee: $30.

CSBL 6010  Anatomy II
1.5 Semester Credit Hours
This course reinforces the principles of human anatomy studies in CSBL 5014. Students will study human anatomy as it relates to function through cadaver dissection. Concentration will be on osteology, musculoskeletal, cardiopulmonary, neuromuscular, and basic systems anatomy as they apply to physical therapy. Human materials fee: $300.

PHYT 5001 Patient Care I
3.5 Semester Credit Hours
This course covers the basic physical therapy techniques and procedures. Students are provided the opportunity to participate in experiences which are required for the development of fundamental skills in patient care. Topics include, but are not limited to, the physical management of the patient (e.g., transfers, positioning, ambulation training); therapist-patient interaction (e.g., learning styles, interviewing techniques, patient privacy, informed consent issues); and documentation.

PHYT 5003  Ethics in Health Care
1.0 Semester Credit Hour
This interdisciplinary course 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, and informed con-
sent. 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 5005 Therapeutic Exercise**  
*3.0 Semester Credit Hours*  
This course provides students with the opportunity to acquire information and experiences related to the biology of voluntary exercise or work. Emphasis is placed on nutrition, energy metabolism, and the cardiopulmonary and neuromuscular systems and the response of these systems to acute and chronic exercise in the healthy individual. The body's response to environmental and occupational stressors will be examined. In addition, the basic principles of therapeutic exercise will be covered with emphasis on different forms of exercise and their application in addressing problems of strength, endurance, and flexibility. Applications to prevention and rehabilitation will be discussed.

**PHYT 5009 Neuroscience I**  
*3.0 Semester Credit Hours*  
This course provides foundational information on the structures and functions of the developing and mature nervous system. Basic functions of the central and peripheral nervous systems and sensory functions are discussed in the context of understanding the effects of aging, trauma, and disease on functions of the nervous system.

**PHYT 5011 Patient Care II**  
*4.0 Semester Credit Hours*  
The purposes of this course are (1) to provide the student with the information and opportunities to develop skill in basic physical therapy evaluation techniques including palpatiation, goniometry, manual muscle testing, volumetric measurements, girth measurements, and assessment of cutaneous senses and deep tendon reflexes; and (2) to provide the student with the information and opportunities to develop skill in the delivery of physical therapy treatment modalities such as superficial heat, cold, hydrotherapy, ultraviolet, intermittent compression, traction, massage, and laser biostimulation.

**PHYT 5012 Principles of Kinesiology in Physical Therapy**  
*4.0 Semester Credit Hours*  
A study of joint structure and function and the mechanical principles underlying the kinematics and kinetics of human motion, with emphasis on the interaction between biomechanical and physiological factors in skeletonmotor function and the implications of kinesiological principles in physical therapy practice.

**PHYT 5014 Scientific Inquiry I**  
*3.0 Semester Credit Hours*  
This course provides a general introduction to research design. Topics include different forms of experimental and nonexperimental research, development of a research question, hypothesis testing, and an introduction to the process of critical analysis. Students will have an opportunity to start the process of selecting an appropriate research question.

**PHYT 5017 Principles of Disease in Allied Health Practice**  
*2.0 Semester Credit Hours*  
This course will characterize what happens to the human body during different disease processes. It will begin at the cellular and tissue levels and advance to progressive study of diseases and disorders within different organ systems. It will examine the pathological changes of both histological and gross anatomical specimens, as well as the biochemical and physiological changes which occur during different diseases and disorders. It will also discuss some aspects of diagnosis and treatment of these disorders. There will be an extensive medical vocabulary associated with this course.

**PHYT 5018 Pharmacology in Allied Health Practice**  
*1.0 Semester Credit Hour*  
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 (including pharmacokinetics and pharmacodynamics) will be addressed, as well as important precautions and contraindications for physical therapy treatments. Drug classes to be studied include anti-anxiety, anti-seizure, psychiatric and emotional disorders, Parkinson's disease, dementia, pain and local anesthetics, coagulation disorders, anti-hypertensives, anti-dysrhythmics, pulmonary disorders, electrolyte disorders, anti-inflammatory agents, lipid disorders, metabolic disorders, and bone and muscle disorders.

**PHYT 5019 Neuroscience II**  
*3.0 Semester Credit Hours*  
This course provides further foundational content following completion of PHYT 5009. The course will cover basic neuroanatomy, neurophysiology, and neuropharmacology. It will also apply neuroscience to clinical applications regarding pathology and patient care. Since structural organization is central to most functional concepts, neuroanatomy will be emphasized to facilitate an overall understanding of the nervous system. Regions of the central nervous system covered will be brainstem, cerebellum, diencephalon, basal ganglia, cortex, limbic system, and vascular supply.

**PHYT 5021 Clinical I**  
*9.0 Semester Credit Hours*  
This course is an eight-week clinical rotation in a physical therapy setting in one of the following areas: acute care, orthopedics, or rehabilitation with a purpose of having the student work towards entry-level competence in each type of setting. Emphasis is on development and practice of professional and selected physical therapy patient treatment skills for each of the specified areas of acute care, orthopedics, and rehabilitation.

**PHYT 5023 Developmental Disabilities Elective for Physical Therapy**  
*3.0 Semester Credit Hours*  
This course offers both didactic and client-contact experiences that prepare the student to work with clients with developmental disabilities. Additionally, the course provides an orientation to interdisciplinary service provision and community and accessibility issues. The course is appropriate for graduate students interested in serving persons with developmental disabilities. This is not a required course but rather an elective course that will provide the opportunity for PT students to meet their elective requirement.

**PHYT 5060 Team Approach to Pain Management: An Interdisciplinary Elective**  
*1.0 Semester Credit Hour*  
This course provides an overview in current concepts of pain management from a clinical interdisciplinary health care team perspective. Content includes classification characteristics and assessment of pain and interventions for pain control. Emphasis is on interdisciplinary interaction regarding actual case studies.

**PHYT 5091 Special Topics**  
*0.5–4.0 Semester Credit Hours (varies per topic)*  
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 6002  Orthopedics I**  
**5.5 Semester Credit Hours**  
This course covers physical therapy evaluation and treatment of disorders affecting the musculoskeletal system due to trauma and disease across the life span; comparisons of the philosophy and application of musculoskeletal evaluation and treatment techniques advocated by major orthopedic manual therapists; and an emphasis on incorporating assessment of joint integrity into total patient evaluation and patient management in orthopedic surgical and nonsurgical situations.

**PHYT 6007  Orthotics**  
**1.5 Semester Credit Hours**  
This course presents the basic principles of orthotic evaluation, prescription, application, training, and management. Emphasis is on biomechanical assessment of the spine, lower extremity, upper extremity, and pediatric considerations, as well as miscellaneous techniques such as taping and casting. Emphasis will be on the development of therapeutic rationales to include adjunct physical therapy interventions. Development of problem-solving abilities will be enhanced via case studies. Psychomotor skills will be promoted through lab activities. Multidisciplinary interaction will be fostered through the participation of certified orthotists, occupational therapists, licensed athletic trainers, and durable medical equipment vendors.

**PHYT 6011  Electrophysical Agents**  
**3.5 Semester Credit Hours**  
This course presents the physical principles, physiological effects, therapeutic uses and clinical application of therapeutic heat and cold, mechanical energy, electrical stimulation, electrophysiological testing, biofeedback, and photic energy.

**PHYT 6012  Prosthetics**  
**1.5 Semester Credit Hours**  
This course will provide an overview of the basic principles for evaluation and management of amputees, to include lower extremity, upper extremity, and pediatrics populations. An understanding of the primary causes of prosthetic intervention along with preventative care will be detailed. A familiarity with the surgical procedures, postoperative care regimens, and long-term management will be covered for the most common levels of amputation by way of a case-study approach. Examination, fitness decisions, and prosthetic training will be relayed via actual patient evaluation, interaction technology, and videotaped patient presentations. Multidisciplinary interaction will be fostered via participation of general and orthopaedic surgery, physical medicine, and certified prosthetists from the community.

**PHYT 6013  Cardiopulmonary Rehabilitation**  
**3.0 Semester 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 physical therapy management of same. The course will also include wellness and fitness programs as part of an interdisciplinary cardiopulmonary rehabilitation team.

**PHYT 6021  Clinical II**  
**8.0 Semester Credit Hours**  
This course is an eight-week clinical rotation in a physical therapy setting in one of the following areas: acute care, orthopedics, or rehabilitation with a purpose of having the student work towards entry-level competence in each type of setting. Emphasis is on development and practice of professional and selected physical therapy patient treatment skills for each of the specified areas of acute care, orthopedics, and rehabilitation.

**PHYT 6022  Teaching Practicum**  
**1.0 Semester Credit Hour**  
This course is designed for the student to learn basic theory about learning, learning styles, and teaching techniques. Emphasis will be on instruction related to clinical practice. Students will be directed to attend to issues of learning across the lifespan and for acute and chronic conditions.

**PHYT 6024  Clinical Education Preparation**  
**1.0 Semester Credit Hour**  
This course is designed to provide the student with the foundations to understand: the role and expectations of the student during a clinical placement in acute care, outpatient orthopedics, and rehabilitation setting; the use of the designated grading tool, the “Blue MACS,” legal and ethical considerations for physical therapy students; and understand the importance of professional behavior including the generic abilities in the clinical environment. This course will also incorporate instruction in the methods of communication and conflict resolution. This course will introduce the students to a variety of professionals to whom they may consult or delegate to provide comprehensive healthcare. It will explain the different requirements between practice settings related to the accreditation process. It will also provide a forum to address issues that will affect new graduates in physical therapy practice such as cultural diversity, Medicare, malpractice insurance, licensure, professional development, and job preparation.

**PHYT 6100  Neurological Case Studies I**  
**1.5 Semester Credit Hour**  
This course will give the student an opportunity to provide beginning level examination and management of patients with neurological and metabolic dysfunction introduced in Management of Neurological Patient I, i.e., persons with spinal cord injury and cerebral vascular accident using a case study format. The focus will be on patient examination and development of an integrated plan of care. Topics may include interdisciplinary management, cultural issues, psychological factors, socioeconomic issues, community-based resources, and patient family education.

**PHYT 6101  Neurological Case Studies II**  
**1.5 Semester Credit Hour**  
The purpose of this course is to provide the student with the opportunity to integrate information from a variety of sources in order to provide optimal management of a patient requiring physical therapy services. Topics include multidisciplinary management, psychological factors influencing patient care, community-based resources, cultural issues, patient and family education, and socioeconomic factors. The patient case studies will emphasize neurological and medical problems. In addition, the student will be provided with the opportunities to learn about and perform an environmental assessment.

**PHYT 6102  Scientific Inquiry II**  
**2.0 Semester Credit Hours**  
The purpose of this course is to discuss the components of a successful presentation and to examine the processes and procedures required for submission of a scientific paper for publication. During this course the students will have the opportunity to present their findings, fostering integration of the research process.
PHYT 6106  Principles of Administration in Physical Therapy
2.5 Semester Credit Hours
This course will cover current trends and problems in the administration of clinical physical therapy departments which affect technical and professional personnel. Designed to place emphasis on communication, motivation, leadership, and supervision of small groups. Additionally, this course will teach skills necessary for a student to have the opportunity to become an entry-level supervisor in a physical therapy or combined rehabilitation services department in either an institution or a stand-alone clinic. Topics include planning, budgeting, staffing, controlling, communicating, and organizing. Emphasis is placed on developing leaders instead of managers.

PHYT 6108  Management of the Neurological Patient I
4.0 Semester Credit Hours
This purpose of this course is to help the student develop the skills necessary to examine, evaluate and develop an appropriate treatment intervention plan for patients with movement dysfunction secondary to neurologic problems. Emphasis will be on assessing function and on developing treatment management programs that lead to improvements in function. Movement dysfunction will be covered across the lifespan for acute and chronic conditions. The topics will be presented from a problem-based approach. Current approaches to the management of the neurologically involved patient will be critically assessed.

PHYT 6112  Critical Thinking in Physical Therapy
3.0 Semester Credit Hours
This course describes the screening process and the clinical diagnosis reasoning process to assist the physical therapist in the differential diagnosis of neuromusculoskeletal and visceral dysfunction. It consists of the examination of body systems linked with physical therapy evaluation to provide optimal and safe patient management with the ultimate goal of determining when to treat and when to refer.

PHYT 6114  Orthopedics II
4.0 Semester Credit Hours
This course instructs techniques of physical therapy examination, evaluation, and intervention of patients across the lifespan, with emphasis on musculoskeletal dysfunction of the cervical, thoracic, lumbar, and sacroiliac spine.

PHYT 6116  Management of the Neurological Patient II
4.0 Semester Credit Hours
This course is designed to give the student the opportunity to continue to develop skills necessary to evaluate and treat the patient with neurologic dysfunction. Emphasis will be on assessing function and in developing treatment programs that lead to improvements in function. Movement dysfunction will be covered across the lifespan for acute and chronic conditions. Management strategies and skills will be reinforced by having the students participate in labs, work with area clinicians for specific diagnoses, and design treatment plans based on case studies.

PHYT 6121  Clinical III
7.0 Semester Credit Hours
This course is an eight-week clinical rotation in a physical therapy setting in one of the following areas: acute care, orthopedics, or rehabilitation with a purpose of having the student work towards entry-level competence in each type of setting. Emphasis is on development and practice of professional and selected physical therapy patient treatment skills for each of the specified areas of acute care, orthopedics, and rehabilitation.

PHYT 6130  Motor Control and Motor Learning
1.5 Semester Credit Hours
This 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 discussions of the various schools of thought on how movement is controlled and learned. Students will 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 6221  Advanced Clinical Practicum
4.0 Semester Credit Hours
This elective provides an opportunity for the student to develop knowledge and experience, beyond the required clinical education in an area of special interest. The elective may involve, but is not limited to, in-patient, outpatient, private practice, community centers or home health venues in which assessment and treatment is the focus of care. The elective is for four weeks full time or the part time equivalent.

PHYT 6910  Anatomy Teaching Assistant Elective
1.0 Semester Credit Hour
This elective course provides the student with the opportunity to plan, implement, and evaluate teaching/learning experiences within the context of the didactic physical therapy educational program. Students will participate in the Anatomy I (CSBL 5014) course as a teaching assistant. Students will prosect, teach lab sessions/prepare/proctor/grade lab exams, and tutor as needed.
PHYSICIAN ASSISTANT STUDIES

Philosophy and Rationale
The American Academy of Physician Assistants defines physician assistant as a health professional licensed or credentialed, in the case of those employed by the federal government, to practice medicine with physician supervision. Physician assistants (PAs) are qualified by graduation from an accredited physician assistant educational program and/or certification by the National Commission on Certification of Physician Assistants. Within the physician/PA relationship, physician assistants exercise autonomy in medical decisions and provide a broad range of diagnostic and therapeutic services. The clinical role of physician assistants includes primary and specialty care in medical and surgical practice in rural and urban areas. Physician assistant practice is centered on patient care and may include educational, research, and administrative activities.

The mission of The University of Texas Health Science Center at San Antonio, 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 underserved and vulnerable people of South Texas. This mission will be accomplished through culturally appropriate, socially relevant education, service, and scholarship.

The vision of The University of Texas Health Science Center at San Antonio, 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.

Master of Physician Assistant Studies Program
The UTHSCSA Physician Assistant Studies program is an intense didactic and clinical program designed to prepare primary care physician assistants to meet the needs of the people of South Texas. The program begins fall semester and runs continuously for 33 months. The didactic component of the curriculum is 21 months long and consists of classroom, laboratory, and clinical preparation. This instruction is designed to prepare the student to successfully complete the 12 months of supervised clinical practice and, ultimately, for practice as a physician assistant. The supervised clinical practice phase is oriented to primary care and occurs in sites throughout South Texas. All students must complete a minimum of two rural rotations and must be prepared to assume the expense for this activity.

Master of Physician Assistant Studies (MPAS) students may be eligible to receive a Bachelor of Science in Health Care Sciences (BSHCS) after successful completion of 12 months in the program. Students who fulfill requirements for the BSHCS are awarded the degree at the end of the MPAS program. With the approval of the faculty, students who successfully complete the full 33-month MPAS program are awarded a Master of Physician Assistant Studies degree. Graduates are eligible to sit for the Physician Assistant National Certifying Exam (PANCE) given by the National Commission for Certification of Physician Assistants. Passing the PANCE is required for licensure in all states.

The UTHSCSA Master of Physician Assistant Studies program is accredited by the Accreditation Review Commission on Education for the Physician Assistant, Inc. (ARC-PA), 12000 Findley Road, Suite 240, Duluth, GA, 30097; phone (770) 476-1224, fax (770) 476-1738; http://www.arc-pa.org.

Application and Admission
Information about application and admission to the program is detailed in the School of Allied Health Sciences Applicant Viewbook, available from the Registrar and online at http://studentservices.uthscsa.edu/Publications/allied.html. Applications are accepted between May 1 and October 1 for enrollment the following fall semester. All required application information and documents must be submitted to the Centralized Application Service for Physician Assistants (CASPA) by October 1. Official transcripts should be sent directly to CASPA. Applicants may obtain further information and submit applications through CASPA at https://secure.caspaonline.org. An additional supplemental application must be submitted directly to the UTHSCSA Registrar by October 1.

Applicants who are completing coursework in the fall semester of the application period must submit to CASPA an official transcript showing that the coursework is in progress by the October 1 deadline, and complete an academic update with CASPA in January following the application period. If selected for an interview, applicants should bring a transcript with fall grades annotated.

Prior-year applicants must submit a new application. Questions about re-application should be directed to the Registrar and/or CASPA.

Admission Factors
A limited number of applicants are invited for a personal interview. Facts used for selecting applicants to be interviewed include:

- Awards and honors
- Bilingual skills
- Health care experience
- Knowledge of and commitment to the physician assistant profession
- Leadership
- Physician assistant shadow time
- Primary care/South Texas oriented
- Race/ethnicity
General Policies and Information

Advanced Placement
There is no advanced placement in the physician assistant studies program for academic work completed prior to matriculation or for any type of work or health care experience. No prerequisite coursework may be used for program credit or substitution for a physician assistant studies course. Only student who have been accepted to the program may apply for transfer of credit, credit for experiential learning, or credit by examination.

Advancement, Probation, and Dismissal
The Promotions Committee recommends a student’s promotion status based upon (1) course grades, (2) attendance record, and (3) professional behavior. In addition, the committee will assess extenuating circumstances that may have affected a student’s progress on an individual basis.

The grade of C is the minimum acceptable grade during the course of the program. However, to continue in the program unconditionally, students must (1) have a cumulative program grade point average of 2.75, (2) successfully complete all prescribed courses and program requirements, (3) earn a grade of at least a C in each course, and (4) receive faculty recommendation.

Applicant Orientations
Applicant orientations are offered monthly between May and September. Additional information is available at the department Web site http://www.uthscsa.edu/sah/pastud-
ies. Reservations to attend an orientation may be made by contacting the department by phone at (210) 567-8810 or by e-mail at pastudies@uthscsa.edu.

Attendance
Students are expected to attend every class, laboratory, conference, demonstration, meeting, clinical assignment, etc., that is a component of the curriculum. The once-a-year offering of courses and step-by-step format of the curriculum allow minimal or no opportunity for make-up sessions. The faculty are 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.

Personal illness, immediate family emergency, and a natural disaster are reasons for absence. However, prolonged absences for any reason may not be remediable.

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 will 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 physician assistant student is
totally dependent on the sum of her/his experiences during the educational and training period. No experience is gained by absence.

**Auditing Courses**

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.

**Computer and PDA Requirement**

Students are required to purchase a laptop computer from the UTHSCSA Computer Store upon matriculation. Students are also required to purchase a PDA during the second year of the program. Cost of both is calculated as a cost of attendance and is included in determination of financial aid eligibility.

**Credit by Examination**

No course with PHAS prefix may be credited by examination. Other courses are at the discretion of the course director and/or the chair of the department offering the course. The student may be assessed a fee for an examination taken for credit.

**Credit for Experiential Learning**

Credit for experiential learning for a course in the curriculum requires exacting and well-documented experiences that demonstrate mastery of the learning objectives and skills in the course to be credited. Documentation is required from individuals who have knowledge of the student and who can attest to mastery. Student documentation, alone, is not adequate for credit to be awarded.

**Professional Attire**

Students are expected to dress in a manner that reflects their maturity and matriculation in a professional course of study. Student dress, as well as conduct, must reflect the professional nature of the PA profession.

During the first year of the program, students spend most of their time in lectures, laboratories, or other activities that do not involve contact with patients. At such times students are expected to dress comfortably, but in such a way that does not detract from attentiveness and learning. When patient contact is part of the curriculum, either through direct contact or when a patient is brought to a lecture room, students are expected to have a professional appearance and to wear the white clinical jacket with patch and the required student I.D. Course and program faculty should be consulted about proper attire in specific circumstances.

During supervised clinical practice, students are expected to dress as health care professionals and to wear both the white jacket with program patch and the required name tag. For some rotations, other forms of dress may be acceptable (for example, surgery). The faculty should be consulted on any questions about dress on clinical rotations.

During any clinical or patient contact settings, the hair must be worn off the collar and prevented from falling into patient fields.

A sample dress code is available on the Physician Assistant Studies Web site.

**Program Costs**

Costs for in-state tuition and fees, parking permits, health and liability insurance, etc., are approximately $25,000 for the entire MPAS program. In addition, costs for other expenses, such as textbooks, computer (required), laboratory jackets, equipment lease, etc., are approximately $7,600. Students are expected to have high-speed Internet access (included in the estimates above). Non-resident students are subject to additional tuition costs, which may be found under “Financial Information” in this Catalog.

Students are responsible for personal expenses incurred in traveling to clinical rotation sites outside of San Antonio throughout South Texas. Such rotations are scheduled periodically throughout the third year. Expenses may include lodging and bus fare and/or automobile mileage. It is estimated that approximately $2500 should be budgeted toward these costs.

**Technical Standards**

Applicants should review the Student Technical Standards available at the department's Web site, [http://www.uthscsa.edu/sah/pastudies/](http://www.uthscsa.edu/sah/pastudies/) or from the department office.

**Transfer of Credit**

Prerequisites for the Physician Assistant Studies program cannot be used as transfer courses for the courses in the curriculum. A course may be accepted in transfer if it was completed with a grade of C or better at the graduate level an a regionally accredited college or university. The syllabus must be sent directly from the originating school or teacher. The learning objectives, grading requirements, and required skills must be very similar to the course to be credited. The credit hours of the transfer course must be equal or exceed the UTHSCSA course. The department chair is responsible for approving transfer of credit.

Individuals allowed to transfer from another physician assistant program must meet the same prerequisites as students in the UTHSCSA program, must have been enrolled in a post-baccalaureate physician assistant program, and meet all requirements for admission to the UTHSCSA program. The student must be in good standing at the original institution and recommended by the program director or department chair.
Master of Physician Assistant Studies Curriculum

The curriculum consists of five semesters of didactic, laboratory, and clinical instruction conducted on the UTHSCSA campus. During the final three semesters, students complete 12 four-week supervised clinical practice rotations in San Antonio and throughout South Texas. Rotations are full-time clinical experiences (40+ hours per week) and earn 4.0 semester credit hours each. A pass-fail summative examination is administered during the final fall semester; students must pass the summative examination to qualify for graduation.

First Year

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<tr>
<th>Semester</th>
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<tr>
<td>Fall</td>
<td>CLSC 5040 Clinical Laboratory I</td>
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<td>PHAS 5000 Introduction to the Profession</td>
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<td>PHAS 5001 Patient Evaluation I</td>
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<td>PHAS 5003 Behavioral Medicine</td>
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<td>PHAS 5005 Clinical Applications in Nutrition</td>
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<td>PHAS 6001 Cultural Issues in Health</td>
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<td>PHYT 5017 Pathology</td>
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<td>CLSC 5041 Clinical Laboratory II</td>
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<td>CSBL 5014 Anatomy</td>
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<td>PHAS 5004 Introduction to Clinical Practice</td>
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<td>PHYL 5013 Physiology</td>
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<td>PHAS 6002 Problem Based Learning I</td>
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<td>PHAS 6003 Patient Evaluation II</td>
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<tr>
<td></td>
<td>PHAS 6013 Scientific Inquiry</td>
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Second Year

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<td>INTD 2001 Introduction to Clinical Sciences I</td>
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<td>PHAS 6004 Preventive Medicine/Community Health</td>
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<td>PHAS 6010 Pharmacology I</td>
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<td>PHAS 6012 Clinical Skills I</td>
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<tr>
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<td>EMSP 4010 Advanced Cardiac Life Support (ACLS)</td>
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<td>INTD 2002 Introduction to Clinical Sciences II</td>
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<td>PHAS 6014 Pharmacology II</td>
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<td>PHAS 6015 Clinical Skills II</td>
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Year-Two Summer Semester through Year-Three Spring Semester

Supervised Clinical Practice Rotations:
PHAS 6101–6112
- Emergency Medicine 4.0
- Medical In-patient Service 4.0
- Pediatrics 4.0

Course Descriptions

Supervised Clinical Practice is accomplished at sites throughout South Texas. These primary care rotations last four weeks. All students complete a Community Medicine project. Students will return to campus at the end of fall semester during the clinical year for a Senior Seminar on such subjects as practice issues, management issues, billing and coding, job-hunting skills, and contract negotiations. Rotations require long, irregular hours and are physically and mentally demanding. Rotations at rural sites are required and students must be prepared for the costs involved.

PHAS 5000 Introduction to the Profession

2.0 Semester Credit Hours

This course is an overview of the physician assistant profession. The course will provide students with an opportunity to develop an understanding of the profession to include history, social issues, liability, educational philosophy, certification/licensure requirement, and professional concepts/issues. Preclinical experiences will include clinical observations, clinical activity, and exposure to the wide range of physician assistant practices. There is an instructional technology fee for this course.

PHAS 5001 Patient Evaluation I

3.0 Semester Credit Hours

This course provides the student with an opportunity to develop a theoretical and clinical basis for assessment of the patient. The course will provide 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. There are instructional technology and leasing fees for this course.

PHAS 5002 Ethical Issues

1.0 Semester Credit Hour

This interdisciplinary course will provide students with an opportunity to develop an understanding of the ethical issues facing allied health professionals. Topics 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 also will be addressed. Collaborative activities and simulated cases will be used to enhance discussion among students. There is an instructional technology fee for this course.
PHAS 5003  Behavioral Medicine
3.0 Semester 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. There is an instructional technology fee for this course.

PHAS 5004  Introduction to Clinical Practice
1.0 Semester 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. Activities will range from observation to participation in patient care. Basic problem solving, group discussion, and literature review will be included. There are instructional technology and leasing fees for this course.

PHAS 5005  Clinical Applications in Nutrition
1.0 Semester Credit Hour
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. There is an instructional technology fee for this course.

PHAS 5006  Biostatistics
3.0 Semester Credit Hours
The student will have an opportunity to critically analyze medical and scientific literature/research. There is an instructional technology fee for this course.

PHAS 5007  Pharmacology I
3.0 Semester 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. There is an instructional technology fee for this course.

PHAS 5008  Preventive Medicine/Community Health
4.0 Semester 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. There is an instructional technology fee for this course.

PHAS 5009  Problem Based Learning II
1.0 Semester Credit Hour
This course is a continuation of Problem Based Learning I. There is an instructional technology fee for this course.

PHAS 5010  Clinical Skills I
2.0 Semester Credit Hours
The student will have the opportunity to develop and expertise in the clinical techniques generally used by physician assistants. Practical instruction on patient care skills will be provided with direct experiential practice on models. There are instructional technology and leasing fees for this course.

PHAS 5011  Problem Based Learning III
1.0 Semester Credit Hour
This course is a continuation of Problem Based Learning II. There is an instructional technology fee for this course.

PHAS 5012  Clinical Skills II
2.0 Semester Credit Hours
This course is a continuation of Problem Based Learning II. There is an instructional technology fee for this course.

PHAS 5013  Scientific Inquiry
3.0 Semester 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. There is an instructional technology fee for this course.

PHAS 5014  Pharmacology II
3.0 Semester Credit Hours
A continuation of Pharmacology I, 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. There is an instructional technology fee for this course.

PHAS 6004  Clinical Skills III
2.0 Semester Credit Hours
This course is a continuation of Clinical Skills II. There is an instructional technology and leasing fees for this course.

PHAS 6005  Preventive Medicine/Community Health
4.0 Semester 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. There is an instructional technology fee for this course.

PHAS 6010  Problem Based Learning III
1.0 Semester Credit Hour
This course is a continuation of Problem Based Learning II. There is an instructional technology fee for this course.
Supervised clinical practice rotations
Supervised Clinical Practice rotations are accomplished at sites throughout South Texas during the final 12 months of the program. All students are required to complete at least 2 rural/remote rotations and should be prepared for additional living expenses during this time. Rotations are all four weeks in length, are primary care-based, and require long, irregular hours. Students are expected to take call and be available for hospital or nursing home rounds before and after a regular work day. Rotations are both physically and mentally demanding. All students complete a Community Medicine Project as the Capstone event for the master’s degree. Students return to campus periodically for testing, presentations, and other activities as appropriate. Courses are numbered PHAS 6101-6112 for ease in scheduling, but rotations listed may be accomplished in any order.

Emergency Medicine
4.0 Semester Credit Hours
This is a four-week clinical practicum during which the student will have the opportunity to gain practical experience in emergency and life-threatening conditions and assume patient-care responsibility under the direct supervision of a licensed practitioner. Students will work primarily in emergency medicine but may be required to take call and participate in hospital rounds. This practicum is usually accomplished in a hospital emergency room. There is a practicum fee for this course.

Medical Inpatient Service
4.0 Semester Credit Hours
This is a four-week clinical practicum during which the student will have the opportunity to gain practical experience and assume patient-care responsibility under the direct supervision of a licensed practitioner. Students will work primarily in an inpatient setting as part of the medical team and are required to take call and participate in hospital care plans. This practicum is accomplished in an inpatient internal medicine setting. There is a practicum fee for this course.

Pediatrics
4.0 Semester Credit Hours
This is a four-week clinical practicum during which the student will have the opportunity to gain practical experience in the pediatric population and assume patient-care responsibility under the direct supervision of a licensed practitioner. Students will work primarily in an outpatient setting but may be required to take call and participate in hospital rounds. This practicum is usually accomplished in a pediatric department or clinic but may be held in a rural, inner-city, or family medicine setting. There is a practicum fee for this course.

Primary Care I, II, and III
8.0 Semester Credit Hours
This is an four-week clinical practicum during which the student will have the opportunity to gain practical experience in primary care and assume patient-care responsibility under the direct supervision of a licensed practitioner. Students will work primarily in an outpatient setting but may be required to take call and participate in hospital rounds. This practicum is usually accomplished in a rural or inner-city facility, but may be in an internal medicine or family medicine department. There is a practicum fee for this course.

OB/GYN
4.0 Semester Credit Hours
This is a four-week clinical practicum during which the student will have the opportunity to gain practical experience in obstetrics and gynecology and assume patient-care responsibility under the direct supervision of a licensed practitioner. Students will work primarily in an outpatient setting but may be required to take call and participate in hospital rounds. This practicum is usually accomplished in a pediatric department or clinic but may be in a rural, inner-city, or family medicine setting. There is a practicum fee for this course.

Surgery
4.0 Semester Credit Hours
This is a four-week clinical practicum during which the student will have the opportunity to gain practical experience in pre- and post-operative care and assume patient-care responsibility under the direct supervision of a licensed practitioner. Students will work both in inpatient and outpatient settings and are expected to take call and participate in surgical procedures. This practicum is usually accomplished in a surgical department and focuses on general surgical procedures. There is a practicum fee for this course.

General Elective II
4.0 Semester Credit Hours
This is a four-week clinical practicum during which the student will have the opportunity to gain practical experience in general medicine or medical subspecialty, including primary care. Location depends on the focus the student selects. There is a practicum fee for this course.

Medical Elective
4.0 Semester Credit Hours
This is a four-week clinical practicum during which the student will have the opportunity to gain practical experience and assume patient-care responsibility under the direct supervision of a licensed practitioner. Students will work primarily in an outpatient setting but may be required to take call and participate in hospital rounds. This practicum may be in any general medicine or medical subspecialty, including primary care. There is a practicum fee for this course.

Community Medicine Project
4.0 Semester Credit Hours
The implementation of the community medicine project developed during didactic course of study. The project should be designed to improve the overall health of a population or community. Students will have the opportunity to go into the community and put their project into action. The project is a group undertaking and requires the group to conduct a needs analysis, prepare and submit a grant proposal, create a website in support of the project, create a scientific poster that summarizes the project, present the project to junior PA students, and create a project summary notebook. Students are graded on both an individual and group level based on participation, accomplishments, and group dynamics. There is a practicum fee for this course.

Selective
Selective: A four-week course of instruction selected by faculty (with input from the student) to best meet the needs of the student. Students are considered for one of the following:

A) Clinical Research: This course is an expansion of the Scientific Inquiry course taken in the first summer session. It introduces the student to the Clinical Research environment. Students will be involved in the selection and care of patients in Phase
II-Phase IV Clinical Studies. Students may review ethical considerations for patient selection, screen patients for study protocol participation, and review and compile clinical results. Students may also be required to analyze clinical research articles and/or clinical data.

B) Geriatrics: This is a four-week clinical practicum during which the student will have the opportunity to gain practical experience in geriatrics and assume patient care responsibility under the direct supervision of a licensed practitioner. Students will work primarily in an outpatient setting but may be required to take call and participate in hospital and/or nursing home rounds. This practicum may be accomplished in either an inpatient or outpatient setting. May also be selected as an elective rotation.

C) Psychiatry: This is a four-week clinical practicum during which the student will have the opportunity to gain practical experience in behavioral medicine and assume patient care responsibility under the direct supervision of a licensed practitioner. Students will work primarily in an outpatient setting but may be required to take call and participate in hospital rounds. This practicum may be accomplished in either an inpatient or outpatient setting. May also be selected as an elective rotation.

D) Skills Enhancement: Four-week rotation based on the improvement of clinical and study skills. Students receive individualized assistance with development of study skills that will aid them in the completion of the PA National Certification Examination. General problem solving, and organizational skills are enhanced. Clinical skills are polished and test-taking skills are emphasized. Students who fail more than one end of rotation examination during the clinical year may be required to take this selective.

E) South Texas Environmental Education and Research (STEER): This is a four-week practicum in which the student lives and works in the Laredo Community under the direction of STEER faculty and staff. Students are exposed to medical and environmental issues ranging from disparate health care and living conditions, to air and water quality and purification. Students may also receive training with Customs officials on the Texas/Mexico border, wildlife specialists, and complementary and alternative medicine specialists. May also be selected as an elective rotation.

F) Specialty Training: Four-week rotation in a specialty area not normally considered by other students. This rotation may be a one-time offering based on the needs of the student and may occur outside of the usual clinical rotation site area.

G) Teaching: Designed to provide the student with the opportunity to develop an understanding and appreciation for professional and higher education. The student will be given the opportunity to participate in teaching, service, and scholarly activity under the mentorship of the faculty. The opportunity for the level of participation will depend on the timing of the rotation assignment, availability of faculty, and program activity. Directed readings and assignments will allow the student to develop an understanding of curriculum, course, lecture development and evaluation. Students will teach selected topics to first and second year students. May also be selected as an elective rotation. There is a practicum fee for this course.

PHAS 6017 Senior Seminar
2.0 Semester Credit Hours
The senior seminar includes case reports, presentations, updates, and lectures on relevant topics. Practice issues include personal interaction; dealing with difficult patients (e.g., dissatisfied, demanding, suicidal, physically or mentally challenged, non-English speaking); medical record keeping; and quality assurance. Management issues include office staffing and an introduction to billing and coding. Transition-to-Practice issues include marketing yourself, the job search, creating a curriculum vitae, contract negotiations, and information on the certification examination and licensing procedures. The Summative Evaluation is conducted during this period of time and includes standardized testing and a standardized patient encounter. Successful completion of the Summative Evaluation is required for graduation from the PA Studies program.
RESPIRATORY CARE

Respiratory care, also known as respiratory therapy, is the allied health profession responsible for caring for patients with deficiencies and abnormalities of the cardiopulmonary system. Areas of respiratory care include basic care (oxygen, aerosol, and chest physiotherapy), critical care (ventilator management and physiologic monitoring), perinatal and pediatric respiratory care, cardiopulmonary diagnostics, pulmonary laboratory, alternate site care, home care, pulmonary rehabilitation, and disease management.

The respiratory therapist often sees a diverse group of 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 and infant respiratory distress syndrome, shock, trauma, and postoperative surgical care. Respiratory therapists also are involved in many specialty areas in the hospital such as newborn labor and delivery, neonatal and pediatric intensive care units, pulmonary function laboratory, sleep laboratory, adult intensive care units, extracorporeal membrane oxygenation, EKG, and areas outside the hospital such as clinics, extended care facilities, and the home.

The baccalaureate-prepared respiratory therapist, as an advanced practitioner, is trained to deliver respiratory care in the hospital, home, and alternate care sites. Bachelor’s degree program graduates are eligible to sit for the national board exams for certification as an entry-level respiratory therapist, to become registered as an advanced-level respiratory therapist, and to take specialty examinations in perinatal/pediatrics and pulmonary function technology.

Bachelor of Science in Respiratory Care Program

The Bachelor of Science in Respiratory Care degree program requires a minimum of 147.5 semester credit hours, including Texas core curriculum requirements, program prerequisites, respiratory care coursework, and clinical fieldwork. Texas core curriculum requirements and program prerequisites may be completed at any regionally accredited college or university.

The “professional phase” of the program, which consists of respiratory care coursework and clinical fieldwork, is completed at UTHSCSA and affiliated clinical sites. The professional phase is approximately 22 months long. It is dedicated to clinical and academic excellence and includes more than 1,000 hours of in-hospital clinical practice. 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.

Graduates are awarded a Bachelor of Science in Respiratory Care degree and are eligible to sit for the Entry Level CRT Examination and the Written Registry Examination for Advanced Respiratory Therapists, given by the National Board for Respiratory Care. Passing the Entry Level CRT Examination is required for licensure in Texas.

The program is accredited by the Committee on Accreditation for Respiratory Care (CoARC), 1248 Harwood Rd., Bedford, Texas 76021-4244, phone (817) 283-2835, fax (817) 354-8519, and the Commission on Accreditation of Allied Health Education Programs (CAAHEP), 35 East Wacker Drive, Suite 1970, Chicago, IL 60601, (312) 553-9355.

Application and Admission

Application for admission to the Bachelor of Science in Respiratory Care program may be completed at https://www.applytexas.org/adappc/commonapp.WBX. Detailed information about application and admission is available in the School of Allied Health Sciences Applicant Viewbook, available from the Allied Health Welcome Center at (806) 802-6288 (toll-free) or (210) 567-8744, and on-line at http://studentservices.uthscsa.edu/publications/allied.html. Completed application, application fee, official transcripts, and supporting documents must be submitted to the Registrar by May 1 for fall semester admission.

Admission Factors

A maximum of 24 full-time students is admitted each year. Admission is on a competitive basis. 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. In addition, the review includes consideration of the non-academic qualifications listed below (listed in no particular order of preference or weight):

- bilingual ability
- race/ethnicity
- educational attainment of the applicant’s family
- 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
- socio-economic history (educationally and/or economically disadvantaged)
- positions of leadership held
- public/community service or “volunteer” related activities
- “volunteer” activities in health care related areas
- prior experience in providing health care related services
- extra-curricular activities
- success in overcoming adverse personal, family, or “life” conditions/experiences

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• communication skills – as demonstrated in the essay and personal interview
• commitment/desire to serve in a medically under-served region of the state following graduation
• reference letters or recommendations
• research accomplishments
• applicant’s future goals
• knowledge of, and preparation to enter, the profession of respiratory care gained through observing or volunteering in a hospital setting or other patient care setting
• Texas resident status, or permanent Texas resident alien

Admission Requirements

Applicants must have completed 42 semester credit hours of Texas core curriculum requirements (see “UTHSCSA Core Curriculum” in this Catalog) and 29 semester credit hours of program prerequisites (see list of prerequisites, below). Texas core curriculum requirements may be used to satisfy Texas core curriculum requirements only. Admission requirements include:

• Completion of Texas core curriculum requirements with a grade of at least C in all courses
• Completion of program prerequisites with a grade of at least C in all courses
• Minimum overall grade point average of at least 2.5 in college/university coursework
• Sophomore standing or higher at the time of application
• Ability to complete all Texas core curriculum and program prerequisite courses by fall semester enrollment in the program
• Personal interview with program faculty

Program Prerequisites

<table>
<thead>
<tr>
<th>Course Description</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anatomy and Physiology I</td>
<td>4.0</td>
</tr>
<tr>
<td>Anatomy and Physiology II</td>
<td>4.0</td>
</tr>
<tr>
<td>Chemistry I, with laboratory</td>
<td>4.0</td>
</tr>
<tr>
<td>Computer Literacy</td>
<td>3.0</td>
</tr>
<tr>
<td>General Psychology</td>
<td>3.0</td>
</tr>
<tr>
<td>Microbiology, with laboratory</td>
<td>4.0</td>
</tr>
<tr>
<td>Physics I, with laboratory</td>
<td>4.0</td>
</tr>
<tr>
<td>Statistics</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Program Prerequisite Total 29.0

General Policies and Information

Advanced Standing in Respiratory Care

Individuals holding the Certified Respiratory Therapist (CRT) or Registered Respiratory Therapist (RRT) credentials awarded by the National Board for Respiratory Care (NBRC) are eligible for advanced standing in the Respiratory Care Program.

Individuals holding the CRT credential may be eligible to receive credit for 20 semester hours of coursework based on the CRT credential. These individuals may be eligible to attempt equivalency examinations for an additional 29 semester hours of coursework. All other admission and program requirements must be met.

Individuals holding the RRT credential may be eligible to receive 61 semester credit hours based on the RRT credential. Such individuals must enroll in and complete a minimum of 30.5 semester hours of coursework at UTHSCSA. Individuals holding the RRT credential must apply for admission to the program at least 60 days prior to the first day of the semester in which they wish to begin coursework at UTHSCSA. General education prerequisites may be waived for these individuals for admission to the program. All general education requirements must be completed prior to graduation and all other program requirements apply.

Advancement, Probation, and Dismissal

Respiratory care courses are taught in a sequential manner, and each course serves as a prerequisite for subsequent courses. Therefore, courses must be taken in the planned sequence. Failure to earn a grade of C or better in a course may result in the student’s being suspended or dismissed from the program. Students who are readmitted to the program at times other than the fall semester will resume the course sequence from the point of exit.

Unless otherwise described in a course syllabus, the minimum satisfactory grade for course credit is 75% (letter grade of C), and all stipulated segments of a course must be passed by this standard. Students must demonstrate proficiency in all required clinical skills in order to pass clinical courses.

If a student earns grades lower than C, the student may not be permitted to register for subsequent courses or semesters, and the student may be subject to suspension or dismissal from the program.

Students who withdraw or have been dismissed from the program must re-apply and will be considered on the same basis as a new applicant. Students requesting re-admission must submit a letter to that effect to the Committee on Allied Health Studies for Respiratory Care (see “Readmission Procedure” below).

Attendance — Clinical Practice

There are no excused absences from clinical practice. Each clinical practice has a requisite number of mandatory clinical hours. Any student not completing the required clinical hours during a given session will not receive a passing grade for that clinical practice. Time for any excused absence must be made up at the discretion of the clinical instructor. Clinical instructors are not required to allow a student to make up missed days. If clinical absences are not made up, a letter grade of “F,” “I,” or “IP” may be given at the discretion of the faculty.
Clinical practice, unless otherwise announced, begins at 6:45 a.m. Students are expected to be prompt and prepared to begin clinicals at 6:45 a.m. Tardiness, delays, and absences hamper all student assignments made for that clinical day. If assignments cannot be arranged because of tardiness, the student may be required to make-up that day of tardiness as a full clinical day.

Any student exceeding four (4) tardies or four (4) clinical absences may be subject to dismissal from the program.

**Procedure for Notification of Illness or Tardiness** — A student is required to:

1. Call the hospital assigned to the student for clinical practice before 6:30 a.m., if possible.
2. Speak with the shift supervisor.
3. Identify herself/himself as a student at The University of Texas Health Science Center at San Antonio when speaking to the shift supervisor.
4. Inform the shift supervisor that he/she will be late or absent.
5. Notify the UTHSCSA Department of Respiratory Care by 8:30 a.m.

**Attendance — Class**

Class attendance regulations allow the student to be absent no more than 10% of the scheduled lectures. Students absent more than 10% of the scheduled classes may be dropped from the course. For example, if a class meets 50 times during a semester, then a student will be allowed a maximum of five (5) classes missed. The student may be dropped from the course on the sixth class missed.

**Conduct and Ethics**

Each student is expected to conduct herself/himself at all times in a dignified manner—a manner which conforms to the ethics of the profession and which instills patient confidence in one's abilities as a health care practitioner.

Irresponsible, unprofessional, or unethical behavior, as determined by the instructor, or failure to follow the instructions of a clinical instructor during clinical practice may result in dismissal from the program. All hospital regulations are to be followed by students when undergoing clinical training in a facility.

The department will not condone cheating in any form. Allegations of cheating will be reviewed by the Committee on Allied Health Studies and, if merited, dealt with in a strict manner, including immediate dismissal from the program.

Any student found to be cheating on an examination will automatically receive a “0” for the exam and, at the discretion of the Committee on Allied Health Studies, will be subject to dismissal from the program.

In the event of a student disciplinary problem in a clinical facility, such as unprofessional conduct, the following procedure will be adhered to:

1. The student will be dismissed from the clinical facility by the instructor, and the time will be recorded as an unexcused absence.
2. The student will be scheduled for a formal counseling session conducted by the instructor and the clinical director, at which time her/his clinical status will be reviewed and appropriate action taken. The student must complete this counseling session in order to be readmitted to the clinical rotation.
3. The program attendance policy remains applicable.

**Correspondence Between Students and Faculty**

1. A schedule of office hours will be noted in each faculty member's course syllabus.
2. Students are responsible for checking the program bulletin board for current notices at least once per week.
3. Students will be assigned to a faculty advisor in the fall semester of their junior year. Times for student conferences will be posted.
4. Each student must meet with her/his advisor formally at least once per semester during the academic year. One advisement session will be held during each summer session.
5. A student conference record will be completed and signed by both the faculty member and student following a formal conference.

**Graduation Requirements**

To graduate from the program, students must:

- Complete all required coursework with a grade point average (GPA) of 2.0 or better
- Complete all required respiratory care professional courses with a grade of C or better
- Successfully complete the Entry Level CRT Examination, 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 Advanced Cardiac Life Support (ACLS) and Pediatric Advanced Life Support (PALS)
- Successfully complete the Neonatal Resuscitation Program (NRP)

**Guide for Professional Conduct**

Professionalism relates to the intellectual, ethical, behavioral, and attitudinal attributes necessary to perform as a health care provider. Examples of professional behavior are listed in the Guide for Professional Conduct. These examples should be reviewed by the student; however, professional behavior is not limited to these examples. In addition, the student will be expected to:

**Attention**

1. Demonstrate awareness of the importance of learning by asking pertinent questions, identifying areas
of importance in clinical practice, and reporting and recording those areas.

Participation
1. Complete assigned work and prepare for class, laboratory, and clinical objectives prior to attending.
2. Participate in formal and informal discussions, answer questions, report on experiences, and volunteer for special tasks and research.
3. Initiate alteration in patient care techniques when appropriate via notification of nursing staff and physician.

Dependability and Appearance
1. Attend sessions and be punctual and reliable in completing assignments with minimal instructor supervision.
2. Promote a professional demeanor by appropriate hygiene, grooming, and attire.

Communication
1. Demonstrate a pleasant and positive attitude when dealing with patients by greeting them by name, approaching them in a nonthreatening manner, and setting them at ease.
2. Explain procedures clearly to the patient.
3. Ask patients how they feel and solicit patient comments regarding the patient's overall condition and response to therapy.
4. Communicate clearly to nursing staff and physicians regarding the patient status, utilizing appropriate charting, oral communication, and the established chain of command.

Organization
1. Display recognition of the importance of interpersonal relationships with other members of the health care team by acting in a cordial and pleasant manner.
2. Work as a team with fellow students, nursing staff, and the physician in providing patient care.
3. Organize work assignments effectively.
4. Collect information from appropriate resources.
5. Correlate respiratory care to overall patient condition.
6. Adapt respiratory care techniques to overcome difficulties.
7. Devise or suggest new techniques for the welfare of the patient or enhance the efficiency of the respiratory care facility.

Safety
1. Verify identity of patients before initiating therapeutic action.
2. Interpret written information and verbal directions correctly.
3. Observe and report significant changes in patient's condition promptly to appropriate person(s).
4. Act to prevent accidents and injury to patients, personnel, and self.
5. Transfer previously learned theory and skills to new/different patient situations.
6. Request help from faculty/staff when unsure.

Examples of critical errors in professional conduct and judgement include:
1. Failure to place the patient's welfare as first priority.
2. Failure to maintain physical, mental, and emotional composure in all situations.
3. Consistent ineffective, inefficient use of time in clinical setting.
4. Failure to be honest with patients, faculty, and colleagues.

Illness
In the event of a lengthy illness, each case will be reviewed individually with regard to time lost, time available for completion, and content of objectives to be covered. Any such absence may require written documentation from a physician.

Illness or Injury of Student While Attending Classes
Illness or injury while in the classroom or clinical area must be reported to the professor or instructor present. Students who are pregnant should inform the clinical director who will inform the instructor, so that no assignment will be made involving exposure to radiation or other hazards.

Incidents in the Clinical Agency
An incident which affects patient or staff well-being or the patient's prescribed care will be reported to the clinical instructor immediately. A hospital incident report will then be completed following the policy of that institution. A duplicate of the hospital incident report, as well as a memorandum of explanation from the clinical instructor, will be placed in the student's clinical file and the Department Chair or clinical director will be notified immediately. Incidents involving gross errors in judgement or practice on the part of the student will constitute grounds for dismissal from the program.

Incomplete Assignments and Make-up Examinations
All assignments are to be turned in as specified on the course syllabus. Assignments not turned in to the instructor when due will result in a “0” for that assignment.

Students given an incomplete in a course must have the mechanism for resolving the incomplete agreed upon with the course instructor by the first week of classes in the subsequent semester. The agreement must be in writing and must include the signature of the student and the instructor.

As a general policy, make-up exams will not be given for missed exams. A request for a make-up exam should be directed to the individual instructor. In cases of serious illness or accident, a make-up exam may be considered.
Professional Attire

The following guidelines are used to assist the student in adjustments to various hospitals and other health agencies. The policies vary, but in general the rules established by the program will cover the student’s responsibility when entering such health agencies. The University of Texas Health Science Center at San Antonio wishes to have its students represent the University in a manner that reflects its goal of high standards of professionalism.

Uniform regulations are needed to assure standard, identifying attire and a well-groomed personal appearance. The ultimate goal is to protect the patient and self from cross-contamination and to reflect confidence and assurance in patient contact and hospital staff personnel relationships.

1. A white, buttoned (no zipper), long-sleeved laboratory coat, approximately knee length, must be worn at all times in the clinical agency. A program patch will be permanently affixed to the left front pocket.
2. Name tags and University ID cards specified by the program must be visibly worn at all times.
3. Males: Shirts and ties will be worn. Dress pants are preferred, but neat dress casual pants or cords are acceptable.
   Females: Dresses, skirt and blouse, or slacks and blouse are acceptable.
   NO blue jeans, sandals, or tennis shoes.
4. A watch with a second indicator is required.
5. Stethoscopes, bandage scissors, and hemostats are mandatory beginning in the spring semester of the junior year. A small pocket notebook should be purchased for clinical sessions.

Failure to comply with the above regulations regarding uniform policy may result in the student being dismissed from clinicals until such time as the deficiencies are corrected.

Program Costs

Costs for in-state tuition and fees, parking permits, health and liability insurance, etc., are approximately $16,000 for the entire degree program. In addition, costs for other expenses, such as textbooks, course manuals, equipment, uniforms or scrubs, examination fees, and supplies are approximately $3,300. Travel and living expenses for local and out-of-town clinical experiences are not included in this estimate. Non-resident students are subject to additional tuition costs, which may be found under “Financial Information” in this Catalog.

Readmission Procedure

A student who fails a Respiratory Care course, drops a respiratory care course during a session, or does not proceed to the next respiratory care course may be eligible for readmission at the first available opportunity and must petition the Committee on Allied Health Studies (CAHS) to reenter the program.

The following procedure is required:

1. At the time the student fails, drops, or decides not to proceed in sequence, the Department Chair will complete a student counseling form giving the reasons for the failure or reasons for the student dropping the course. The form will be signed by the student. One copy will be given to the student and one copy will be placed in the student’s record.
2. An exit interview with the Department Chair is encouraged as part of the official procedure for exiting the program.
3. At least two months prior to the beginning of the semester in which the student wishes to reenter, he/she must submit a letter of intent to the CAHS. Students wishing to reenter the fall semester should submit the letter of intent by May 15. Requests for readmission should be submitted to the Registrar.
4. If remedial work was requested in guided studies of general courses, results of such classes must be included in the request for readmission. If medical conditions were involved, written verification of good health and ability to function safely in a clinical crisis situation is required.
5. The decision regarding reentry will be subject to the policy on reinstatement to the respiratory care sequence and approval of the CAHS.
6. The student will be informed in writing of the decision.

Tardiness (Class and/or Clinical)

The student should be in the appointed place at the appropriate time; disregard for this demonstrates irresponsibility and unacceptable professional behavior. Such behavior cannot be tolerated and action may be taken at the discretion of the instructor. Excess tardiness may result in grade reduction. In certain instances, the student may be subject to administrative withdrawal from the course and/or program.

Three-Year Track

A three-year professional phase track is available for students who wish to reduce the required course work load in order to complete program prerequisites or meet other outside requirements. For more information on the three-year track, contact the department.

Program Curriculum

In addition to Texas core curriculum requirements and program prerequisites, the professional phase of the program includes the following courses.

<table>
<thead>
<tr>
<th>Junior Year</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fall Semester</td>
<td></td>
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<tr>
<td>RESC 3001 Basic Respiratory Care Equipment</td>
<td>3.0</td>
</tr>
<tr>
<td>RESC 3003 Introduction to Respiratory Care</td>
<td>5.0</td>
</tr>
<tr>
<td>RESC 3005 Respiratory Care Pharmacology</td>
<td>4.0</td>
</tr>
<tr>
<td>RESC 3007 Cardiopulmonary Physiology</td>
<td>5.0</td>
</tr>
<tr>
<td>RESC 3011 Patient Assessment</td>
<td>3.0</td>
</tr>
<tr>
<td><strong>Semester Total</strong></td>
<td><strong>20.0</strong></td>
</tr>
</tbody>
</table>
modalities will be examined in detail. Respiratory therapy equipment utilized in performing basic therapeutic expiratory resistance, postural drainage, and percussion/vibration. This includes oxygen/aerosol therapy, positive pressure breathing, incentive spirometry, evaluation of therapy. Modes of care include medical gases, humidification to patients, indications, hazards, contraindications, and modes of respiratory care are examined to understand principles of application to respiratory care, as well as basic respiratory care procedures. Specific equipment utilized in performing basic therapeutic modalities will be examined in detail.

**Course Descriptions**

**RESC 3001  Basic Respiratory Care Equipment**

**3.0 Semester Credit Hours**

Students will have the opportunity to gain hands-on experience with basic respiratory care equipment. Students will have the opportunity to select, assemble, and check equipment for proper function, operation, and cleanliness. Equipment malfunctions and actions to correct malfunctions also will be covered. Equipment will include oxygen delivery devices, humidifiers, aerosol generators, pressure ventilators, gas delivery, metering and analyzing devices, percussors, vibrators, environmental devices, manometers and gauges and vacuum systems. **Lab fee: $15.**

**RESC 3003  Introduction to Respiratory Care**

**5.0 Semester Credit Hours**

This course covers the principles of chemistry and physics as they apply to respiratory care, as well as basic respiratory care procedures. Specific modes of respiratory care are examined to understand principles of application to patients, indications, hazards, contraindications, and evaluation of therapy. Modes of care include medical gases, humidity/aerosol therapy, positive pressure breathing, incentive spirometry, expiratory resistance, postural drainage, and percussion/vibration. Respiratory therapy equipment utilized in performing basic therapeutic modalities will be examined in detail. **RESC 3005  Respiratory Care Pharmacology**

**4.0 Semester Credit Hours**

This course introduces the physiologic and pharmacologic basis of pulmonary and cardiac medications. The course will focus on the preparation, as well as the calculation of dosages and mixtures. General principles of pharmacology as a basis for an in-depth discussion of bronchoactive drugs and drug groups related to the cardiopulmonary system such as neuromuscular blocking agents, central nervous system depressants, cardiovascular agents, and diuretics will be included.

**RESC 3007 Cardiopulmonary Physiology**

**5.0 Semester Credit Hours**

This course provides an in-depth study of cardiac and pulmonary anatomy and physiology, as well as the diagnostic procedures commonly used in the hospital to evaluate these systems. Topics include the function of the respiratory system, ventilatory mechanics, gas transport in the blood, natural and chemical regulation of breathing, circulation, blood flow and pressure, and cardiac output. The heart-lung relationship and clinical applications of these phenomena in the cardiopulmonary system will be emphasized.

**RESC 3011  Patient Assessment**

**3.0 Semester 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 3013  Disease Management, Rehabilitation, and Extended Care**

**3.0 Semester 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 non-acute settings is examined, along with technological and procedural aspects of cardiopulmonary equipment.

**RESC 3017 Pulmonary Disease**

**3.0 Semester Credit Hours**

Topics include the etiology, pathophysiology, treatment and prognosis of common cardiopulmonary and pulmonary diseases and conditions. The course will include assessment skills needed to evaluate the patient’s condition from clinical observations, laboratory tests, and chest radiographs.

**RESC 3019  Clinical Practice I**

**5.5 Semester Credit Hours**

**Prerequisites: RESC 3005, RESC 3003, RESC 3001**

This course introduces students to clinical practice in basic respira-
tory care procedures. Topics include: introduction to the clinical affiliate, medical gas therapy, oxygen therapy, aerosol therapy, incentive spirometry, and patient assessment. In addition, intermittent positive pressure breathing, and chest physiotherapy and 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 3021 Mechanical Ventilation
3.0 Semester 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 trouble shooting. Maintenance of artificial airways, fiber-optic bronchoscopy, thoracentesis, chest tube maintenance, and arterial blood gas sampling related to the critical care patient will also be discussed. Lab fee: $15.

RESC 3023 Pulmonary Function Testing
3.0 Semester Credit Hours
This course is a study of normal and abnormal pulmonary functions. The student will have the opportunity to learn how to perform, interpret, and evaluate various pulmonary function studies. Also, students will be given the opportunity to learn the operation and maintenance of pulmonary function and gas analysis equipment. Lab fee: $10.

RESC 3025 Critical Respiratory Care
5.0 Semester Credit Hours
This course covers instruction on the phases of adult critical care and continuous mechanical ventilation. The history of mechanical ventilation, modes of mechanical ventilatory support, implementation, monitoring, ventilator weaning, and discontinuance will be covered.

RESC 3029 Clinical Practice II
3.5 Semester Credit Hours
Prerequisite: RESC 3019 Clinical Practice I
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.

RESC 4001 Cardiopulmonary Technology
3.0 Semester 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 4003 Pediatric and Neonatal Respiratory Care
3.0 Semester 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 4005 Advanced Critical Care Monitoring
3.0 Semester Credit Hours
This course is a study of advanced critical care techniques for invasive and noninvasive patient monitoring. Hemodynamic monitoring will include arterial pressure monitoring, central venous and pulmonary artery catheters, and cardiac output measurement. Noninvasive monitoring techniques including oximetry, transcutaneous monitoring, inductance plethysmography, capnography, and metabolic testing will be presented.

RESC 4007 Cardiopulmonary Pathology
3.0 Semester Credit Hours
This course is an overview of respiratory care management of nonrespiratory disorders commonly encountered in the critical care unit. Topics include cardiac and cardiovascular disorders, neurologic and neuromuscular disorders, shock, trauma, sepsis, near drowning, burns, smoke inhalation, carbon monoxide poisoning, drug overdose, renal failure, acute G.I. disturbances, and respiratory care of the postoperative patient.

RESC 4009 Clinical Practice III
5.5 Semester Credit Hours
Prerequisites: RESC 3029, RESC 3025, RESC 3021
Students will have an opportunity to further develop skills required in the intensive care of the respiratory patient. Topics include initiation of mechanical ventilation; patient stabilization and monitoring; measurement and evaluation of hemodynamic variables; bronchial hygiene; and evaluation for weaning, extubation, arterial line samples, and noninvasive monitoring. Case presentations are required to integrate clinical and classroom theory.

RESC 4011 Patient Care Management Seminar
3.0 Semester 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 4013 Management
3.0 Semester Credit Hours
Prerequisite: senior status
Management principles and problems, as they relate to respiratory care; cardiopulmonary sciences; and the management of the department, hospital, service organization, and health programs will be discussed.

RESC 4015 Education in Respiratory Care
3.0 Semester Credit Hours
Prerequisite: senior status
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.

RESC 4017 Introduction to Research
3.0 Semester Credit Hours
This course is an introduction to the methods of scientific research to include research design and statistical analysis. Critical review of the components of research reports will be performed to include definition of the problem, review of the literature, research design, data analysis, and results.
RESC 4019  Clinical Practice IV
5.5 Semester Credit Hours
Prerequisites: RESC 3023, RESC 4003, RESC 4009
This course is an opportunity to acquire clinical experience is provided in perinatal and pediatric respiratory care in the areas of oxygen and aerosol therapy, chest physical therapy, mechanical ventilation, patient assessment and monitoring (invasive and noninvasive), airway care, and labor and delivery assistance. Also covered in the Pulmonary Function Laboratory are arterial blood gas analysis, measurement of lung volumes and capacities, flow volume loops, diffusion testing, and body plethysmography.

RESC 4021  Issues and Trends
3.0 Semester Credit Hours
Prerequisite: senior status
Current issues relevant to the cardiopulmonary sciences and respiratory care will be explored. Health care delivery systems, new trends in organization and management, new treatments and technologies, ethical issues in health care, as well as issues related to professional development and practice will be discussed.

RESC 4029  Clinical Specialization
4.5 Semester Credit Hours
Prerequisite: RESC 4019
Students will have an opportunity for in-depth application and reinforcement of adult intensive care. In addition, students are provided with the opportunity to develop an area of specialization. Specialization areas may include neonatal/pediatrics, adult critical care, pulmonary function laboratory, advanced diagnostics, pulmonary rehabilitation, home care, management, research, or education.
School of Nursing

Mission
The University of Texas School of Nursing at San Antonio was authorized by the Texas legislature in 1969 for the purpose of “preparing nurses to meet the needs of hospitalized patients in the state of Texas.” The School of Nursing, now a part of The University of Texas Health Science Center at San Antonio, has expanded its mission to include providing quality baccalaureate and graduate nursing programs to qualified students, supporting competent clinical nursing practice, participating in scholarly activity, and engaging in community service. The mission reflects the commitment of the faculty to the people of the state of Texas to accomplish its goals and purposes.

Programs
Three programs of instruction in nursing are offered at The University of Texas Health Science Center at San Antonio. The undergraduate program and a continuing education program are presented by the School of Nursing; the graduate program is administratively directed by the Graduate School of Biomedical Sciences. The undergraduate program includes planned learning opportunities designed to meet the needs of beginning as well as registered-nurse students and licensed vocational nurses who are pursuing a degree. The graduate program is designed to provide opportunities for advanced clinical study, research, and preparation for teaching or administration. Both undergraduate and graduate programs are offered on a full-time or part-time basis. The continuing education program provides learning opportunities for the ongoing educational needs of registered nurses in South Texas.

Philosophy
The University of Texas Health Science Center at San Antonio School of Nursing is one of five schools of the Health Science Center and shares the goal of assuring high quality health care for the people of Texas. The purpose of the School of Nursing is to prepare students at the undergraduate and graduate levels to function in a variety of professional nurse roles. The School of Nursing is committed to the highest standards of achievement in instruction, student performance, research and scholarly accomplishment, patient care, and service, as well as the Health Science Center’s responsibilities to South Texas, the state, the nation, and the world.

Major philosophical commitments of the School of Nursing are organized according to six concepts that are emphasized throughout its organization, characterize the conduct of faculty and students, and inspire its education programs. The concepts are: professionalism, scholarship, integrated learning, transition, customization, and partnership.

Professionalism
Nursing is a theory-driven, scientifically based profession that is actualized through the art of practice. The process of care, which occurs through partnership between the practitioner and the patient, enables nurses to nurture human potential, enhance quality of life, and assist patients to achieve optimal health. Nursing draws its knowledge bases and theory from nursing, basic, behavioral, and biological sciences. The professional nurse, in the roles of provider, leader/manager, and member/advocate of the profession is responsible for and accountable to individuals, families, aggregates, the community and society for assessing, planning, providing, and evaluating nursing care across the life span. Faculty and preceptors, as role models for students, personify the qualities of professionalism.

Guidelines for Professional Conduct
Students in the School of Nursing are expected to conduct themselves in a professional manner at all times, not only in interaction with patients but also with peers, faculty, and staff. Students represent the School of Nursing and the nursing profession; thus, students assume responsibilities toward society. These responsibilities are delineated in the Code for Nurses, American Nurses’ Association, 2001. The statements of the code and their interpretation provide guidance for nurses’ behavior in relation to carrying out nursing responsibilities within the framework of ethical decision making. Students are obligated to function at all times within the framework of the Code for Nurses. (Copies of the Code for Nurses with interpretive statements [2001] are available in the Bookstore for purchase.)

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 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 [UTHSCSA Catalog]. Any nursing student who fails to demonstrate to faculty the intellectual, ethical, or behavioral attributes necessary for a member of the nursing profession is subject to dismissal.

Scholarship
Nursing scholarship is a unique synthesis of knowledge from basic, behavioral, and biological sciences
within the domain that is professional nursing. Nursing scholarship involves discovering, creating, structuring, testing, and refining knowledge needed for the practice of nursing. This process occurs through various partnerships among individuals, the School of Nursing, the Health Science Center, and local and world communities. The value of professional scholarship, to which faculty and students subscribe, is realized through its application in the role of provider, leader/manager and member/advocate of the profession, in response to specific human and societal needs.

**Integrated Learning**
Learning is a process that involves the totality of human experiences and facilitates lifelong transitions. Integrated learning has two unique dimensions. The first dimension acknowledges the interaction of the student’s personal components of need, ability, and style. The second acknowledges that the subject (nursing) necessitates incorporation of diverse information into a unified whole-knowledge. Active learning requires students who demonstrate commitment to their development and assume responsibility for their role in the learning process. This results in the preparation of professional practitioners with a broad perspective and understanding of multiple content areas, who are able to synthesize information from various disciplines, think logically, analyze critically, and communicate effectively with patients and other health care professionals. Settings that will optimize student learning are critical to efficient and effective teaching and learning.

**Transition**
“A transition denotes a change in health status, in role relations, in expectations, or in abilities.” (Meleis, 1991)
Many factors influence resilient and healthy transitions resulting in positive changes in bio-behavioral responses, relationships, capabilities, and outcomes relative to people, organizations, and society. The nurse as provider engages the patient in a partnership to evaluate, nurture, and sustain a healthy state. During times of health transitions due to developmental processes, disability, disease, or the process of dying, the nurse provider cares for the patient in a holistic, compassionate, and ethical manner. The nurse-patient partnership involves customized care to the individual patient. The outcomes of the nurse-patient partnership are manifested in changes in health status, knowledge level, nature of role relationships, behavioral changes, and attitudes.
Of particular importance in the educational area, is the School of Nursing’s commitment to serving a diverse student population, and providing education mobility. The faculty recognizes that various nursing programs share a common core and value the various life experiences, knowledge, skill, and abilities that students bring to the educational process. The School of Nursing fosters educational transitions by providing the prospective student with multiple entry options to minimize repetition of content between programs. Faculty and students in partnership customize learning experiences to assist the student in transition to the role of professional nurse at the undergraduate level and the roles of advanced practice nurse and scientist at the graduate levels. Faculty and students share the responsibility for an educational partnership that encourages growth toward learning outcomes in an innovative, evolving learning environment. Outcomes are founded in the cognitive, affective, and psychomotor domains and encourage growth from novice to expert levels.

**Customization**
Nursing care and education should be realized in a manner that maximizes resource utilization, quality, and access. Customization implies designing processes responsive to participant needs, understanding that ability to respond to change is critical to full participation of individuals and groups in the global future. Customization requires adaptability, an unbounded frame of reference, reconceptualizing ideas, realignment, cooperation, and focus on essentials. For the learner, needs, readiness and style are considered, as is curriculum design and implementation that allows for adaptability to best facilitate educational and professional transitions. Customization in care management and delivery involves interactions between health care providers from many disciplines within their collective contexts and requires active partnerships.

**Immunization**
All students must have Hepatitis B immunization before registration. Failure to comply will prevent initial enrollment.

**Auditing Courses**
Anyone may audit a course in the School of Nursing with the approval of the appropriate Associate Dean; the Associate Dean then seeks the consent of the course instructor. Students pay an audit fee, and a permanent record of the audited course is kept by the Registrar. A student auditing a course is not permitted to participate in any clinical activity of the course.

**Graduation**
Official commencement ceremonies are held each year in May. Graduates cannot participate in commencement prior to completion of their program. Official School of Nursing graduation invitations are ordered at the Bookstore. Invitations must be paid for at the time they are ordered.

**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.
Dual Enrollment Processes

Students planning to take courses at both The University of Texas at San Antonio (UTSA) and the School of Nursing must complete an admission form for UTSA and a Certification of Dual Enrollment form. Forms are available in the Registrar's Office; office personnel will complete the form. Students then must hand carry the form to UTSA. Correspondence from UTSA will go directly to the student. Deadlines for application at UTSA are:

- May 1 for summer sessions
- July 1 for fall semester
- December 1 for spring semester

Partnership

Responsive to the changing health care environment, participants maintain a set of dynamic relationships with mutual responsibility for student education and the health of all partners. Faculty and students share the responsibility for an educational partnership that encourages growth toward learning outcomes in an innovative, evolving learning environment. Partnership implies a collegiality that facilitates implementing a learning environment where each participant contributes and receives something that matters, becomes more capable personally and in groups, and devises coordinated meaningful activity. Partners are responsible according to their role: teacher, student, patient*, health care provider, organization, family, community. Partnerships extend to multidisciplinary relationships and organizational contracts. The partnership generates strategic plans and positive creative energy to support the health care goals of the whole.

Accreditation

The University of Texas Health Science Center at San Antonio School of Nursing’s baccalaureate program is approved by the Board of Nurse Examiners for the State of Texas, 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 2011 from the Commission on Collegiate Nursing Education.

One Dupont Circle NW, Suite 530
Washington, D.C. 20036-1120
(202) 887-6791

Student Appeals and Grievances

Student appeals and grievances are handled through established policies and procedures for the School of Nursing as outlined in the general regulations and requirements of the UTHSCSA Catalog.

Procedure for Academic Review

For Undergraduate and Graduate Students

Section I: Purpose of Procedure

The purpose of Academic Review is to provide students and faculty of the School of Nursing with objective appraisal regarding academic matters. The Academic Review Board serves only in an advisory capacity and is not a decision-making body. The student must realize that opening a situation for appeal may result in her/his receiving a higher or lower grade, with acceptance of the recommendations by the faculty member. The Academic Review Board may only consider questions as to whether or not any grade given reflects the student’s achievement or the stated objectives for that grade. The Board may review grades given on any of the following:

a. Clinical performance
b. Papers
c. Projects

The Academic Review Board will not review questions concerning:

a. Specific criteria for grading (course or instructor concern)
b. Specific exam questions or examination results (course or instructor concern)
c. Final course grade (course or instructor concern)
d. Personal conflict (individual faculty concern or to the Chair)

The student may appeal the same grade only once. If the student or faculty wish to pursue the review, administrative channels are established for this purpose. Confidentiality is essential for all academic review procedures. When a student discusses with faculty members the possibility of academic review, this information is not to be shared indiscriminately with other faculty or students. Faculty may seek counsel or advice from other faculty. Students may seek counsel or advice concerning the academic review process from the Assistant Dean for Students. Deans, Department Chairs, and faculty are encouraged to support both faculty and student in relation to the academic review process. The Academic Review Board is not to discuss upcoming situations or ongoing situations outside of the committee hearings. This absence of discussion is essential, to allow each student and faculty member an unbiased hearing.

Section II: Procedure to be Followed

Prior to initiation of an appeal, the student must contact the instructor or Department Chair and discuss the charge. If resolution is not achieved, the student should pursue the academic review procedure.

The student will submit a written petition to the Assistant Dean for Students within 72 hours of receiving the grade in question. The written petition should include:

a. Name of student
b. Specific criteria for grading (course or instructor concern)
c. Final course grade (course or instructor concern)
d. Personal conflict (individual faculty concern or the Chair)
b. Name of course.
c. Grade which is being challenged.
d. Date student received grade.
e. Name of faculty member involved in evaluation of the item in question.
f. Dates student met with instructor and Department Chair.
g. Student’s reason for challenging the grade (brief statement of concern) which may include a charge of discrimination.

Within 72* hours of the receipt of the written petition, the Assistant Dean for Students will convene a meeting of the committee.

If the student is challenging a grade for the reason stated in Section I, paragraph 2, the disposition is to convene an Academic Review Board to hear the concern. The Assistant Dean for Students will:

a. Have student select, by lot, the members of the Academic Review Board.
b. Send a copy of the student’s petition to the faculty member involved, which includes date of the student’s grade and petition, and when the concern was discussed with the instructor or chair. The memo should also include the names of the review board members.
c. Send to the temporary Chairperson of the Academic Review Board the following:
   1. Copy of the student’s petition.
   3. Phone numbers of witnesses selected by the student.

If the student’s concern is not appropriate for the Academic Review Board, the Associate Dean will suggest disposition of the concern.

If the student is challenging a grade for one of the reasons stated in Section I, paragraph 3, the disposition is to inform the student of the channels available through the individual, faculty, Chair, or Dean.

The student should provide the Assistant Dean for Students a list of names and phone numbers of witnesses who have knowledge of the student’s present performance. The Chairperson of the Academic Review Board may limit the participation of character witnesses as appropriate, such as, but not limited to, the following: (1) excluding the participation of some or all character witnesses if in the opinion of the Chairperson such participation does not further the objectives of the Board or time constraints do not permit, (2) requesting written statements from character witnesses in lieu of appearing before the Board, (3) limit the amount of time each character witness may appear before the Board, or (4) any other manner deemed reasonable by the Chairperson.

The Assistant Dean for Students will notify the Dean in writing of the convening of an Academic Review Board. The information given to the Dean is the student’s petition, the name of the faculty member involved, and the names of members of the Academic Review Board, including the name of the chair of the board.

Section IV: Composition and Function of the Academic Review Board
The Academic Review Board will be selected by the student in the following manner:

a. The student will choose whether the Academic Review Board will be comprised of three faculty or two faculty and one student.
b. The student will select, by lot, six faculty names. The first three (or two) persons chosen will serve as members, the rest will serve as alternates.
c. If student representation is desired, the student will select, by lot, four students’ names. The students’ names will be determined by the following mechanism:
   1. The undergraduate students select 20 students and the graduate students will select five students each semester to serve as potential student members of review boards (25 students in all).
   2. The student petitioning will draw the four names from these names, after excluding the students who are in the same class as the petitioner.
   3. The first student drawn will serve as a member and the others will be alternates.
d. In selecting members of the Academic Review Board, the following guidelines should be used:
   1. Faculty and/or students who have knowledge of the situation should not serve on the board.
   2. Members selected for the board should not be eliminated because the student does not know them.
   3. Part-time faculty and students may be asked to sit on the board.

The faculty selected will be notified by the Assistant Dean for Students. Selected faculty members have an obligation to serve on the Review Board. In the rare instance when a member cannot serve, the first alternate will be appointed.

A temporary Chairperson of the Academic Review Board, the faculty member with seniority in length of service on the Health Science Center faculty, will be designated by the Assistant Dean for Students. The three committee members may wish to alter this selection once the committee has convened.

The Chairperson of the Academic Review Board will set a time for a hearing within 72 hours of receipt of the request from the Assistant Dean for Students. The Chairperson will notify the student, faculty, witnesses, and committee members of the date, time, and place of the hearing.

The Academic Review Board will hear all evidence presented and make a recommendation to the student and faculty member involved. The Board may make only one of two recommendations:

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* 72 hours is a suggested time period, not to be rigidly adhered to. Vacation, weekends, and holidays all necessitate extending the time. The Assistant Dean for Students can make adjustments according to circumstances. If an appeal is initiated at the end of a semester and there is not adequate time to complete the appeal process, the appeal will be pursued beginning the first official class day of the next term.
a. The grade given is indicative of the student’s achievement and should stand.
b. The grade given is not indicative of the student’s achievement and the faculty member should reconsider it.

Section V: Conduct of the Academic Review Board Hearing

The initial hearing will be held within 72* hours of the Academic Review Board’s receipt of the petition.

Prior to the hearing, the faculty member involved submits to the Academic Review Board Chairperson any of the following materials appropriate to the item under consideration:

a. Criteria.
b. Objectives.
c. Non-corrected (clean) copy of the paper.

Members of the board should not discuss the student’s petition with the faculty member nor the student prior to the board meeting. If the faculty or student involved approaches a board member for consultation, the board member should direct her/him to the Assistant Dean for Students.

Prior to the board meeting, the chair should share with board members any material given to her/him by the faculty member or the student which is pertinent to the present situation. This material must be kept confidential. During the board meeting, participants/witnesses should be allowed to present their information without interruption. They should present only information relevant to the present situation. After witnesses have presented their information, they should leave the meeting.

Those who may be present at the Board hearing are:

a. Board members.
b. Student involved in situation.
c. Faculty member involved in situation.
d. Witnesses as requested by Review Board.

At the hearing, the Chairperson of the Academic Review Board will be the spokesperson for the Board.

The Chairperson will review the procedure for the student and faculty member and clarify the function of the Board as a data gathering committee. The Chairperson will read the petition from the student and proceed with statements.

The student will present the charge and rationale of her/his concern.

The faculty member will present her/his response to the charge.

Witnesses for either party may be called by the Board Chairperson whenever appropriate during the hearing. Witnesses will wait in an adjoining room and will be present only for their testimony. Visitors are not allowed during a board review.

Academic Review Board hearings will not be tape recorded. Only the charge presented in writing will be discussed during an Academic Review. The student and faculty member may respond only to the petition; the Board Chairperson is responsible for monitoring responses and assuring adherence to this rule.

The Board will be given a maximum of one week after the initial hearing to review each case. The Board may reconvene at any time to request additional data.

When the Board is ready to give its decision, a meeting with the Board, faculty, and student will be conducted. At the meeting, the student and faculty member will be provided written copies of the decision.

The decision of the Board will be directed specifically to the charge (possible decisions are specified in Section IV, paragraph 6). They will state rationale for the decision made. The Board will not supply specific suggestions to the student or the faculty member. The names of board members, list of witnesses, date of hearing, and date of decision are included in the written document.

If the board recommends reconsideration of the grade, the faculty member will review the Board’s decision and inform the student and Academic Review Board Chairperson of her/his action within 72 hours.

The Chairperson of the Academic Review Board is responsible for maintaining and summarizing comments made during the meeting. Once the Board completes its actions, the Chairperson forwards a copy of the decision, which includes a summary of the data presented at the Review Board meeting, rationale for the decision, and any action taken by the faculty member, to the Dean. Once the final written decision is given to the student and faculty member at a meeting, the Chairperson will notify the Assistant Dean for Students of the decision. The Associate Dean will inform the faculty of the action of the Board. Names of persons involved will not be divulged.

If the student or faculty member is not satisfied with the outcome of the review, the possibility of further review or other considerations may be discussed with the Dean.

All evidence accumulated during an Academic Review will be kept in a separate file in the Office for Students, in the event a further appeal is requested.

Student Concerns

Various mechanisms are available at all levels for student input regarding their concerns. Individuals and groups who respond to these concerns include primary instructors, Department Chairs, course coordinator, Assistant Dean for Students, Associate Dean for Graduate Nursing Program, Associate Dean for Undergraduate Nursing Program, Vice President for Academic Administration, or the Dean. Procedures for grievances can be found in the UTHSCSA Catalog.
The president of the Student Body Organization meets bimonthly with presidents of other HSC student groups to discuss problems or concerns affecting students in all schools with the university President. In addition, the Dean of the School of Nursing and the Associate Deans meet with the presidents of all classes and organizations in the School of Nursing once a semester to share School of Nursing news and concerns.

**Procedure for Communicating and Resolving Student Concerns**

The following procedures are established for the purpose of resolving student problems, concerns, or difficulties which are not addressed in procedures established for Academic Review and personal misconduct.

1. Attempt to solve the problem directly with the individual or office that has prime responsibility.
2. If the problem is not resolved:
   a. In matters of curriculum and instruction, the student may communicate with the instructor/Department Chair/Associate Dean. If the concern is a grade on a paper, the student may request a second reader via the Department Chair.
   b. All other problems, concerns, or difficulties may be directed to the student representatives on the appropriate School of Nursing Committees or Health Science Center Committees for presentation to the committee for possible faculty action.
   c. Students, instructors, department chairs, faculty, or Associate Deans shall have direct access to the Dean of the School of Nursing or Dean of the Graduate School of Biomedical Sciences when necessary.

**Procedure for Second Readers of Papers**

If a student disagrees with the grade given on a paper to which a numerical grade is assigned, he/she must discuss this with the faculty member who graded the paper. If agreement is not reached, the following procedure must be followed to request a second reader.

a. The student must submit a written petition for a second reader to the faculty member in charge of the course/department chair no later than one week after receiving the grade. The petition should state which portions of the criteria are being challenged.

b. The student must also submit to the faculty member in charge of the course/department chair her/his copy of the paper.

c. The faculty member in charge of the course/department chair will obtain the unmarked duplicate of the paper, remove the student's name from this copy and select a faculty member to serve as second reader.

d. The second reader's evaluation will be returned to the original instructor for her/his consideration with the original faculty member assigning a final grade.

e. A request for a second reading may result in a grade that is the same, higher, or lower than the first grade.

**Nursing Skills Laboratory**

The Nursing Skills Laboratory was designed as a specific area where psychomotor skills introduced in the curriculum could be demonstrated and practiced. This center is an extension of the lecture classroom and provides an area where students can put into practice principles and techniques essential for good nursing care. The students participating in Curriculum Resource Center activities are expected to come fully prepared to participate in each laboratory period. They are expected to have completed assigned readings, viewed assigned tapes, and answered all study guide questions. Students are expected to participate in the laboratory through practice and attendance of demonstration sessions. The School of Nursing anticipates that students will leave the laboratory with an understanding of principles underlying any given procedure and with a greater understanding of how to perform various techniques. Students will not, however, be expected to have perfected the techniques. Perfection may be achieved by repetitive practice, which students will perform on their own. Faculty Teaching Assistants and graduate assistants are available to supervise students' learning in the simulated Learning Laboratory. Teaching Assistants can monitor skill activity, demonstrate skills, and provide faculty with information on student performance. The Teaching Assistants and graduate assistants are responsible to the Director of Nursing Skills and are accountable to that faculty member for their performance in the Learning Laboratory during regularly scheduled labs.

**Clinical Skills Labs**

Requirements for practice of clinical skills in the Learning Laboratory, other than those for regularly scheduled labs, are outlined below.

1. Students of the School of Nursing may practice only those skills they have previously learned through attendance of regular Learning Lab classes.

2. Graduate students, undergraduate students, and faculty may schedule practice labs with the Director of Nursing Skills. This privilege is not normally extended to students enrolled for courses taken credit by exam.

3. Arrangements for lab space and acquisition of supplies for practice sessions are to be made with the Director of Nursing Skills at least two days in advance of the desired session. Scheduling of sessions is dependent upon availability of space and supplies.

4. All intrusive procedures requiring needles, syringes, and intravenous supplies must be done in the Learning Lab under the supervision of the Clinical Instructor or Director of Nursing Skills. Arrangements for supervision by the Clinical Instructor is the responsibility of the student.

5. Practice sessions not requiring supervision must also be scheduled with the Director of Nursing Skills, to ensure availability of space and supplies.

6. There are no make-up labs offered, unless specifically
scheduled by the faculty. Make-up labs will be taught by faculty scheduling these labs.

7. Individuals who are not students of the School of Nursing may not attend lab sessions.

Videotapes to be viewed prior to labs will be shown only upon request. Requests are to be scheduled at the checkout window.

Guidelines for Using the Learning Laboratory

Hours of Service — Academic year
8 a.m. to 8 p.m., Monday through Thursday
8 a.m. to 5 p.m., Friday.

Hours of Service — Summer
8 a.m. to 5 p.m., Monday through Friday. The Learning Laboratory closes for published University holidays.

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 returned 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. Equipment and materials should be returned to their proper places. Extra books and other nonessential items should be stored in lockers or cubicles before the student enters the Lab.

Attendance Policy
The UTHSCSA School of Nursing faculty believes that attendance at scheduled classes, examinations, clinical experiences, and clinical skills 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. Students, whose illnesses or conditions limit their ability to give safe nursing care, must submit a physician’s statement to the Assistant Dean for Students that the student’s illness is not a risk to colleagues or patients and that the student is safe to return to clinical. The student will not be allowed to return to the clinical area until the physician’s statement has been received. The Associate Dean will notify the appropriate faculty. Repeated or unexcused absences make it impossible to achieve course objectives.

Classroom Attendance, Written Work and Testing Policy
Attendance in class is an expectation of each student. All students are expected to take all examinations and submit written work on the announced due date(s). The student must contact the course coordinator prior to the scheduled exam time or written assignment due date if unable to complete the exam or assignment as scheduled. If the excuse is accepted as reasonable and necessary, arrangements will be made for a make-up exam or to receive extended time for the written project as soon as possible. Failure to make this notification in advance will result in a grade of zero for that specific exam or activity.

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. The faculty pager or the agency phone number should be used to reach the faculty member personally. Completion of missed clinical time is at the discretion of the clinical faculty.

Clinical Skills Lab Attendance
Clinical Skills Laboratory is considered Clinical Time. Clinical Skills Lab (CSL) attendance is mandatory. Clinical Skills Laboratory attendance is essential to meet the objectives of the course. If a student must miss a scheduled lab, he/she must notify the Director of the Clinical Skills Lab in advance. The student must contact their assigned clinical faculty to complete the missed content. When a CSL is missed, the student cannot perform the missed skills during the clinical experience until the missed content is validated. Students arriving late for skills lab are not given extra time for skill practice or performance.

Absences from clinical and clinical skills labs will be documented and reports sent to the Associate Deans for Undergraduate/Graduate Programs.

Testing Policy
Students are expected to take all examinations on the scheduled date(s). The student must contact the course coordinator prior to the scheduled exam time if unable to complete the exam as scheduled. If the excuse is accepted as reasonable and necessary, arrangements will be made for a make-up exam as soon as possible. Failure to make this notification in advance will result in a grade of zero for that specific exam.

Written Assignments
All written work is to be submitted on the announced due date(s) unless the student has made previous arrangements with the faculty member. Failure to make notification in advance may result in a grade of zero for that specific activity.

Interactive Video (IAV) Course or Class Videotaping Student Guidelines

Background
The UTHSCSA School of Nursing has determined that some courses/classes offered to distance sites will be done via interactive video. This technology allows faculty to unite students on two or more campuses.

In order to protect the faculty’s rights and continue to provide essentially the same quality education to students, the School has developed some guidelines to be followed by faculty and students.

Guidelines for students to view missed interactive video class or course when that class is videotaped:
1. Student Guide rules are in effect for all IAV courses and classes.

2. The faculty member will review the student’s reason for missing class and obtain any necessary substantiating material. A determination will be made regarding allowing the student to view a videotape of the actual missed class within the two-week period.

3. If permission is given to view a videotaped class, the student must view the tape in a designated area, at a predetermined time. The videotape is not available for the student to take home, record, or use in any manner other than that directed by faculty.

4. If the student has difficulty accessing the class handouts, they will need to notify the faculty before class time to allow for solutions to be agreed upon. The distance site coordinators, faculty, and School of Nursing information technology staff will assist the students in accessing required electronic material or identify alternate solutions when possible.

5. The students will be required to seek clarification, question, and actively participate in the interactive class. The faculty can hear questions from the distance sites and reply as they are voiced. The students may participate in interactive discussions with students at each distance site.

6. The technicians at each site are able to coordinate their views so those students asking questions will be seen at the other sites. The students at each site may be viewed on a large screen in each site or not seen except on the faculty monitor. Different classes will prefer different arrangements depending on the student and faculty needs.

7. The technicians at the distance sites and the sending site will support the faculty and student with the open or guided discussions and/or question/answer periods. The sound may be located at the student chair or desk, or microphones may need to be shared. The students will be oriented to the arrangement in their room at the beginning of the semester.

General Interactive Video (IAV) Distance Education Student Guidelines

Background
The UTHSCSA School of Nursing has determined that some courses/classes offered to distance sites will be done via interactive video. This is being done to achieve efficiency and economy in people’s time and financial commitment.

The School is committed to provide essentially the same quality education at all locations. The School has developed some guidelines to be followed by faculty and students.

Guidelines for students for interactive video class or course:

1. All students will arrive at their assigned location on time or before class time. The class may be using handouts or models brought to the location. Pictures, audio/visual, and electronic presentation files may be sent to an individual’s e-mail. The student may need to rearrange their personal seating or class seats in the room for best view of the class material. The technician in the rooms will do audio and visual checks before the class begins.

2. In order to insure the handouts and any individual student required materials are available in each location prior to the class start time, the faculty or their administrative support staff should send the items to the coordinator, a central location rearranged for students to pick it up and duplicate it, or to each student by mail or electronic mail. If electronic mail is used the students will be informed they will need to obtain the material from their electronic mail before class.

3. The students are required to notify their faculty and the Assistant Dean for Students of electronic mail address changes and to maintain their mail in accordance with school policies and procedures to insure they can send and receive mail at a minimum through their assigned UTHSCSA account.

4. If the student has difficulty accessing the class handouts they will need to notify the faculty before class time to allow for solutions to be agreed upon. The distance site coordinators, faculty, and School of Nursing information technology staff will assist the students in accessing required electronic material or identify alternate solutions when possible.

5. The students will be required to seek clarification, question, and actively participate in the interactive class. The faculty can hear questions from the distance sites and reply as they are voiced. The students may participate in interactive discussions with students at each distance site.

6. The technicians at each site are able to coordinate their views so those students asking questions will be seen at the other sites. The students at each site may be viewed on a large screen in each site or not seen except on the faculty monitor. Different classes will prefer different arrangements depending on the student and faculty needs.

7. The technicians at the distance sites and the sending site will support the faculty and student with the open or guided discussions and/or question/answer periods. The sound may be located at the student chair or desk, or microphones may need to be shared. The students will be oriented to the arrangement in their room at the beginning of the semester.

Leave of Absence
Under special circumstances, the student who is in good standing may be granted a leave of absence from the undergraduate program, for a maximum period of one year, upon submission of written application by the student. A Leave of Absence indicates the student will be permitted to reenter within a one-year time limit. Students who do not return within a one-year limit must apply for readmission.

A student who wishes to apply for a leave of absence must follow the procedure outlined below:

1. Obtain the Request for Leave of Absence Form from the Undergraduate Office and complete the form, including a rationale for the request.

2. Submit, in person, the completed Request for Leave of Absence Form to the Associate Dean for Undergraduate Program.

3. The Request for Leave of Absence may be approved or disapproved based on the following criteria:
   a. The student is currently passing clinical and theory coursework.
   b. There is sufficient rationale for a Leave of Absence.

4. The student must plan to return to the School of Nursing within one year. The student is responsible for notifying the Undergraduate Office of her/his intent to return by the end of the semester preceding the semester of planned return.

Change of Part-Time/Full-Time Status
Any student requesting a change of status — part-time to full-time or full-time to part-time — must make an appointment with the Associate Dean for Undergraduate Nursing Program or Associate Dean of the Graduate Program. All requests for change will be based upon space available in the requested course(s).

G. If the student is withdrawing from the School, he/she must also complete a Final Clearance Form.

H. If the student is dropping a required nursing course,
Clinical Attire

Projecting a professional image is a responsibility of all students and faculty. Appearance reflects upon the individual, the UTHSCSA School of Nursing, and the nursing profession. The following are guidelines for clinical attire. Individual agencies may determine further dress code requirements at their discretion.

Attire should be white, uniform style, and of appropriate length. Pants and skirts should be white, uniform-style, and worn with white, uniform-style tops. Solid color or printed uniform-style tops, scrubs, or smocks may be acceptable in some clinical facilities. (Halter tops, tank tops, tube tops, T-shirts, muscle shirts, sheer or sleeveless tops, and tight sweaters are not acceptable.) Undergarments should not be conspicuous. White or solid color cardigan sweaters or lab coats may be worn over uniforms.

Shoes should be conservative and businesslike, comfortable and well-fitted, with good support and needed protection. White leather athletic shoes may be worn. Shoes should be clean and in good condition, with clean white shoelaces without attachments.

Plain hose (white or natural) should be worn with dresses and skirts; plain white stockings may be worn with pants. If wearing athletic shoes with dresses and skirts, plain white socks, which are not visible above the shoes, may be worn in addition to hose. Decorative hosiery, pom-pom attachments, etc. are not acceptable.

Hair should be neat, clean, dry, and worn in a conservative style. Long hair must be restrained, so that the hair does not come into contact with patients. Mustaches and beards should be clean and trimmed. Makeup should be conservative. Use of perfume and cologne is discouraged, since patients may have unpleasant reactions (e.g., nausea, difficulty breathing, etc.). Fingernail length should be moderate; brightly colored nail polish or nail designs are not acceptable.

Good personal hygiene is essential. An unclean, unkempt appearance and unpleasant body or breath odors are not acceptable.

Jewelry should be conservative and limited to school or service pins, wedding bands or small rings, and small stud earrings. Additionally, all students are expected to have a watch with a second hand. Bracelets, large or dangling earrings, and large or long necklaces are not acceptable. Both professionalism and safety should be considered when selecting and wearing jewelry.

Street clothes may be worn to clinical agencies in certain circumstances (e.g., Mental Health Nursing, data collection, etc.). Attire consistent with professional standards (no jeans or shorts) should be worn and covered with a lab coat.

A name badge will be provided, at a small cost, and should be worn at all times when the student is in the clinical setting. The orange UTHSCSA School of Nursing patch should be worn on the left shoulder of the uniform and on the pocket of the lab coat. The patch should be sewed on so the edges do not curl; do not pin the patch on the pocket. The name badge and/or patch may not be worn at any time other than when the student is functioning as a UTHSCSA nursing student.

If a student appears at a clinical agency inappropriately attired, asking the student to correct the situation will be the clinical instructor’s prerogative.

All students and faculty follow Universal Precautions in the clinical area.
**Classroom Attire and Decorum**

Clothing worn to classes at the HSC may range from dressy to casual. It is recommended that fashion excesses and extremes be avoided.

Students are expected to observe the following guidelines for classroom behavior:

1. Neither children nor pets may be brought to classes. Children must not be left unattended in any area in the school.
2. Guests may be brought to class if permission is received from the faculty member in charge of the class.
3. Permission to tape record will be obtained from each person being recorded.
4. No food, drinks, or smoking in classrooms or carpeted areas in the building is allowed.
5. Students are expected to be seated by the designated starting time for classes.
6. No audible beepers; cell phones place on mute or vibrate. Students will be located for emergencies via the undergraduate or graduate offices.

**Evaluation and Grading**

All course assignments (papers, projects, exams, etc.) must represent the student's own accomplishments.

The faculty reserve the right to make additional or alternate assignments, to meet the needs of an individual student, or to assess the student's progress in the program.

**Examinations**

Faculty believe 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.

**To validate student's knowledge:**

1. Faculty, as content experts, develop exam items which sample the course content.
2. The validity and reliability of each exam item are evaluated by the faculty through the use of statistical item analysis information.
3. General examination policies include:
   a. Students must notify the faculty if they are unable to take an examination, whether makeup is permitted or not, in accordance with the course policy.
   b. Course policies specify whether missed exams can be made up.
      i. If a makeup is permitted and the student has notified the faculty prior to the scheduled exam time, an alternate exam date and time will be assigned.
      ii. If a makeup is not permitted, the course grade will be determined as specified in the course syllabus.
   c. It is the student's responsibility to assure that all test items have been answered and the answer sheet correctly filled out before leaving the exam room.
4. If the exam uses Scantron on form for scoring, it will be the final grade determination.

4. To preserve the integrity of examinations, the following policies apply:
   a. Students will not have access to purses, paper, or any other items during the exam. Calculators may be permitted for some exams.
   b. Students may be assigned seats by faculty proctors.
   c. Students will remain in the exam room until the exam is completed and both the exam and answer sheet have been turned in to the faculty proctor.

**To reinforce learning and promote understanding of content:**

1. After the exam has been graded, course faculty will 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.
2. Exams may be reviewed either with the clinical group or with the total class outside regularly scheduled class 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.

**Clinical Practicum Experience**

All students are expected to be prepared to provide nursing care for the patient(s) to whom they are assigned and to have completed any other assignments that constitute preparation for activities in which they will engage. Faculty have a right and obligation to remove a student from a clinical setting/agency if the student is not prepared for practicum experience. Students assume responsibility and are liable for their own actions. Students also are responsible for maintaining the confidentiality of patient information.

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. Students should be in the clinical agency only during scheduled times. The student's instructor and the agency personnel must consent to all other visits.

In the clinical setting/agency faculty assume responsibility for the assignment of students to patients for other experiences. 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.
**Patient Safety**

The nature of clinical nursing courses is such that students are involved in the direct 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, and, in usual circumstances, are allowed to continue in a clinical course until the end of that course. If, in the instructor’s professional judgment, a student is unable to provide safe nursing care to patients and cannot remedy the deficit in the given clinical time with possibly limited available faculty supervision, the student will be removed from the clinical setting and will receive a grade of “F” for the course.

**Guidelines for Written Work**

Guidelines for written work have been approved and adopted by the faculty. Every student is expected to follow these guidelines:

1. The official source book to be used in every level of the undergraduate curriculum and in the graduate program will be: *Publication Manual of The American Psychological Association*, Washington, D.C.

   Students are expected to follow the guidelines set forth in this manual; it is the only acceptable source book.

2. Two copies of every paper will be submitted. One copy will be evaluated and returned to the student with written comments. The second copy will be retained by the School of Nursing for one year following the student’s graduation.

3. Written work should be generated from a word processor or typewriter on good quality 8 1/2” x 11” paper. Papers should be double spaced and allow margins of one and one-half inches at the left and bottom of the page. Errors in spelling and grammar and an abundance of noticeable corrections will adversely affect the value of the paper.

**Guidelines for Documentation of Sources Used for Student Papers**

All written work must be stated in the student’s own words or must indicate clearly the portions copied or summarized from the literature or spoken words of others. The current edition of the *Publication Manual of the American Psychological Association* is a required reference for all courses in the School of Nursing curricula. The manual gives clear and specific guidelines regarding presentation of ideas, phrases, and sentences derived from various sources.

The student is cautioned to use direct quotations sparingly. The majority of material presented within a paper should be the student’s own words. Criteria for all student papers require documentation of sources of information, research methods and results, thoughts, ideas theories, etc., from the literature or from oral communications. The student should summarize in her or his own words the material used as documentation. Paraphrasing of literature, or merely rearranging a few of the source’s words or substituting words for a few others is not summarizing! Either the exact words from the source (quotation) or a true summary is acceptable and must be documented accordingly.

All written sources cited within the body of a paper must be listed in the reference list at the end of the paper. Examples of reference list entries for a wide variety of sources (books, chapters in edited books, journals, audiovisual media, etc.) are included in *The Publication Manual of the American Psychological Corporation*.

A student may be accused of plagiarism if he or she submits a paper that presents passages or ideas from writings or oral communication from others without citing the source of each or without identifying quoted material according to guidelines identified above. The UTHSCSA Catalog addresses plagiarism in the section that addresses scholastic dishonesty. Any student found guilty of plagiarism is subject to disciplinary penalty.

**Repetition of a Failed Course**

Students must maintain an average of “C” in each required course in order to progress in the program. Students must request permission to repeat a course that is not passed (either a D or F constitutes a failing grade) during the semester immediately following receipt of the failing grade. Any student who wishes to repeat a course must submit an Application for Readmission to the Subcommittee on Admission, Progression, and Graduation (APG) of the Committee on Undergraduate Studies for the Undergraduate Program. Newly admitted students, enrolled students, and students who have withdrawn on good standing have priority over other students seeking to repeat a course.

*Applications for Readmission* are available in the Undergraduate Office. Subcommittee decisions, including any conditions which are to be met prior to or during the semester in which the student is repeating the course, are communicated to the student in writing by the Associate Dean for the Undergraduate Program.

The APG Subcommittee makes its decision based upon the following:

1. Student Grades: Focus will be on upper-division grades, although lower-division grades may also be considered. Failures, repeats, and withdrawals will be noted.

2. Faculty recommendations regarding repetition.

3. Termination Summary: When a student fails a course, the faculty writes a statement about the student’s performance and discusses the statement with the student. The statement addresses the student’s strengths and weaknesses and contains recommendations on how a student can improve upon weaknesses, recommendations regarding the repetition of the course, and other data, such as grades on tests, projects, and papers.
4. The four-year time limit, from initial enrollment, for completion of all course work toward the degree.
5. Student statements related to performance, extenuating circumstances, plans for future success, etc.; if the student wishes to submit comments.

Any student who wishes to repeat a course should follow the procedure below:
1. Submit an Application for Readmission to the Undergraduate Office. The due date for the application is 72 hours following receipt of final grade.
2. Make an appointment with the Course Coordinator to discuss future progress in the School of Nursing.
3. Make an appointment with the Associate Dean for the Undergraduate Program.

Petitions for reconsideration of the APG Subcommittee are reviewed by the Dean of the School of Nursing. The Dean’s decisions are final.

Advisement Program for Readmitted Students
The student who is readmitted for the purpose of repeating a failed course (including those for which a “WF” was assigned) will be required to participate in an advisement program. The student will be assigned a faculty advisor who will not be involved in the student’s evaluation process the semester during which the student is repeating a course. The student will be required to sign a contract agreeing to participate in the advisement system. Failure to comply with the contract constitutes cause for immediate dismissal.

Readmission to the School of Nursing
Readmission refers to the process whereby a student who has previously attended and later withdrawn from the HSC School of Nursing requests admission to the program. Students who apply for readmission to the School of Nursing must submit an Application for Readmission to the Subcommittee on Admission, Progression, and Graduation for the Undergraduate Program. The application form may be obtained from the Undergraduate Office. The procedure for readmission is the same as the procedure for repetition of a failed course.

Suspected Impaired Nursing Students
A. Reporting Requirements
Pursuant to the Nurse Practice Act, any registered nurse associated with The University of Texas Health Science Center at San Antonio, either as an employee or a student in the School of Nursing, who has reasonable cause to suspect that the ability of any professional nursing student to perform the services of the nursing profession may be impaired by chemical abuse or dependency, must take one of the following actions:
1. Submit a signed, written report to the Texas Board of Nurse Examiners identifying the student and provide any additional information required by the Board; or
2. Report the student to the Assistant Dean for Students, School of Nursing.

Pursuant to the law, if the School of Nursing has reasonable cause to suspect the ability of a professional nursing student to perform the services of the nursing profession may be impaired by chemical abuse or dependency, representatives of the School of Nursing must submit a signed, written report to the Board of Nurse Examiners identifying the student and providing any additional information required by the Board.

Pursuant to the law, any non-licensed RN student in the School of Nursing who has been addicted to or treated for the use of alcohol or any other drug within the past five years must notify the Board of Nurse Examiners for the State of Texas (BNE) and request a Declaratory Order Petition Packet.

Impaired Nurse Student in Clinical Practicum
Nursing students are expected to conduct themselves in a professional manner at all times. Pursuant to the law, if a student appears for clinical practicum under the influence of (drugs/alcohol) the student will be removed from the area immediately by the supervising faculty member and sent home. Disciplinary action may follow.

The Dean of the School of Nursing, Assistant Dean for Students, Associate Dean for Undergraduate Nursing, and Department Chair will be notified of the student’s removal from the clinical area.

B. School Committee on Chemical Abuse and Dependency
1. The Committee on Chemical Abuse and Dependency shall consist of three faculty members appointed by the Dean of the School of Nursing for terms of one academic year: the Division Chief of the Substance Abuse Division in the Department of Psychiatry, the director of the Student Counseling Service, and as ex-officio, Assistant Dean for Students.
2. The Committee will be responsible for developing and implementing a program for the School of Nursing that will accomplish the purpose of this policy.
3. In the development and implementation of the program, the Committee will utilize the existing services, facilities, and personnel of the University and will not duplicate such services or facilities, in whole or in part, within the School of Nursing.

C. Status of a Student Who Enters a Counseling or Rehabilitation Program
1. A student who enters a counseling or rehabilitation program for chemical abuse or dependency must inform the Assistant Dean for Students of the School of Nursing and authorize the professional responsible for the student’s counseling or rehabilitation program to provide the Committee on Chemical Abuse and Dependency with the following information:
a. the nature, severity, and prognosis of the student’s problem,
b. periodic reports concerning the student’s progress, and

c. a final report indicating whether the program was successfully completed and assessing the student’s ability to avoid future abuse of chemicals.

2. Upon receipt of initial information, the Committee will recommend to the Dean whether the student should continue in the nursing curriculum while participating in a counseling or rehabilitation program or should be withdrawn from the program.

3. A student who is withdrawn from the nursing program pending successful completion of a counseling or rehabilitation program must apply for readmission. The Committee will review the final report from the professional who was responsible for the student’s program and recommend to the Dean whether the student should be readmitted.

4. If the Committee recommends that a student should continue in the nursing curriculum while participating in a counseling or rehabilitation program or that a student who has been withdrawn should be readmitted after successful completion of such program, the Committee will include in the recommendation any restrictions or conditions that will apply to the student’s future participation in the nursing curriculum. In making their recommendations, the committee will consider the assessment and suggestions made by the professional responsible for the student’s counseling or rehabilitation program. The student’s participation in the nursing curriculum will be conditioned upon the written agreement of the student to comply with such restrictions or conditions. The restrictions or conditions may not be the type that are authorized as student disciplinary penalties.

5. The Committee will be responsible for determining whether a student complies with the restrictions or conditions established for participation in the nursing curriculum. The Committee will inform a student of any allegations that he or she has failed to comply with such terms and conditions and will meet with the student and hear her or his response. If the committee determines that the allegations are true, the Committee may impose additional restrictions or conditions or recommend to the Dean that the student be withdrawn.

6. The decision of the Dean regarding all recommendations of the Committee is final.

7. Participation in a counseling or rehabilitation program for chemical abuse or dependency will not be considered as a mitigating factor in determining whether a student meets the performance standards for the nursing curriculum.

8. The student participating in a counseling or rehabilitation program for chemical abuse or dependency must inform the Board of Nurse Examiners and request a Declaratory Order.

D. Office of Student Services

The Dean of Nursing is responsible for informing the Office of Student Services when any student is participating in a counseling or rehabilitation program for chemical abuse or dependency. The Office of Student Services will take such action as may be appropriate under the circumstances.

Graduate Program Policies

General Information

Information about academic progression, policies, or procedures, as well as curriculum information, may be obtained from the Associate Dean for Graduate Nursing Program. The Committee on Graduate Studies (COGS), which represents the graduate nursing program, has responsibility to both the School of Nursing and the Graduate School of Biomedical Sciences, and makes recommendations regarding both policy and curriculum.

Current Licensure as a Registered Nurse

Each graduate nursing student is required to maintain current licensure as a registered nurse in Texas, or a Compact State, throughout the graduate program. The current licensure is presented each semester of enrollment at the time of preregistration. Students who do not submit a current license will not be allowed to preregister and/or register for a subsequent term of study until proof of licensure has been submitted.

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 Associate Dean’s Office. Ordinarily, requests for change in advisor can be accommodated, but, as a courtesy, the student should discuss the change with her/his current advisor.

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 of the Graduate Nursing Program. COGS and its subcommittee 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.

Thesis/Dissertation

The Graduate School Instructions for Preparation and Submission of Thesis, Dissertations, and Dissertation Abstracts and forms for advisor approval are available from the Administrative Assistant. Doctoral students and students considering thesis study should obtain a copy of the Guidelines which provide information about the thesis/dissertation process. These forms will be needed when the student decides to proceed with the thesis or dissertation. The signature of at
least one faculty member who has agreed to serve as thesis advisor is required before the student may register for thesis. The doctoral student’s dissertation proposal must be approved by the GSBS Graduate Faculty Council (GFC) before the student may register for dissertation.

Incomplete Grades
An “Incomplete” may be initially granted for a maximum of 3 months; at this point, a further extension must be renegotiated.

An Agreement for a Grade of Incomplete form must be signed by both the student and the faculty member. Forms are available in the Graduate Nursing Office. A student granted an Incomplete must either complete the coursework or renegotiate an extension.

Coursework must be completed within one year. Once the coursework is completed, the faculty member must obtain a Change of Grade Report form from the Graduate Nursing Office to assign a grade.

Processes for Adding or Dropping Courses
The Official Add/Drop period is the first four days of class in session. Students who add courses should check with the Bursar’s Office to pay additional tuition and fees within the prescribed period. There is no penalty for dropping a course during the Official Add/Drop period of time. No grade will be assigned. After this period the student must obtain faculty permission to drop the course, and “WP” or “WF” will be assigned. Students withdrawing from the program will have this noted on their transcripts.

Add or Drop Cards may be obtained in the Office of the Associate Dean for the Graduate Program. The student is responsible for obtaining the faculty’s signature on the card, having the program plan reviewed by her/his advisor, having the advisor sign the card, and returning it to the Graduate Nursing Office which will assume responsibility for appropriate forwarding of the card to complete the procedure. The student’s program plan must be revised at this time with the faculty advisor. Students should note the last dates for adding or dropping courses which are listed in the academic calendar. The signed card must be received by the Graduate Nursing Office on or before the official date for the course to be added or dropped.

Processes for Transferring of Courses
Forms for transfer of credit are available from the Administrative Assistant. Transfer of up to six semester hours of graduate elective credit may be approved by the student’s academic advisor. Courses must be no more than five years old. Approval of elective courses beyond the six semester hours or courses to be accepted in lieu of required, clinical major or minor courses must be submitted to the COGS Subcommittee on Admission, Progression, and Graduation and be approved by COGS. The student may obtain additional information about materials that must be submitted with the petition from the Associate Dean for Graduate Nursing Program or the student’s academic advisor. Approval of any course for transfer, prior to registration for the course, is strongly recommended.

Processes for Auditing a Graduate Course
Auditing a course requires approval by the Associate Dean for Graduate Nursing Program who will seek the consent of the instructor. When registering for such a course, the student should indicate “audit” after the course when it is listed on the course card. If a student is enrolled in a graduate course for a grade and wishes to change to audit status, he/she may do so with the instructor’s consent. Also, a form must be completed. This form may be obtained from the Administrative Assistant in the Office of the Associate Dean for Graduate Nursing Program which must be signed by the instructor and student and returned to the Administrative Assistant for forwarding to the Registrar’s Office.

Petitioning
Students may petition the Committee on Graduate Studies (COGS) through the appropriate Subcommittee for Admission, Progression, and Graduation (APG) 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 which is available from the Graduate Nursing Office. Decisions regarding the petition will be communicated in writing to the students.

Petitions for reconsideration of the decision of the COGS and APG subcommittee are reviewed by the Dean of the School of Nursing. The Dean’s decisions are final.

Scholarships
Various scholarships are available to undergraduate and graduate nursing students. To become eligible for a nursing scholarship, an application for financial aid must be on file with the Office of Financial Aid.

Scholarship eligibility criteria are provided in the scholarship application guidelines. Scholarship criteria stipulate that recipients must meet nursing program progression requirements and maintain at least a 2.5 grade point average to retain eligibility for the scholarship. Information about nursing scholarships is available in the School of Nursing Office for Students.
UNDERGRADUATE PROGRAM IN NURSING

Description of baccalaureate prepared nurse
The baccalaureate prepared professional nurse provides comprehensive care across the lifespan in diverse settings following a Community-Partnership model. The nurse is skilled in case and system management, as well as intra/interdisciplinary coordination of individual and population-based health care. The professional nurse is accountable for high-quality, cost-effective, accessible care in implementing and integrating primary, acute, and tertiary care for patients as they move across settings. The professional nurse maintains a global view of health, health policy, health care, and health services. As a scholar, the nurse is capable of making valuable contributions to an understanding of health, illness, and healing.

Program objectives
The baccalaureate program provides opportunities for the learner to develop the following behaviors:

1. Design nursing processes to provide comprehensive care across the lifespan in structured-unstructured settings, simple-complex situations, and predictable-unpredictable circumstances.
2. Create partnerships with patients in the customized therapeutic care process to protect, promote, and restore optimal health.
3. Incorporate therapeutic communication skills when enacting professional practice.
4. Evaluate practice decisions using critical thinking.
5. Evaluate strategies to improve nursing care through scholarship.
6. Manage, lead, and collaborate with health care providers from multiple disciplines to deliver quality care across levels of prevention and within organizational structures of diverse health care settings.
7. Account for ethical and legal conduct under the standards of nursing practice.
8. Analyze issues and trends in health care that affect the health care environment, locally and globally.
9. Adhere to ethical and legal conduct that reflects the standards of nursing practice.
10. Display behaviors that demonstrate the values of a self-directed professional engaged in continuing development.

Admission and Application
Requirements for admission to the undergraduate program are detailed in the Applicant Viewbook of the School of Nursing, available in print and on the Web (http://studentservices.uthscsa.edu/publications/nursing.html). Prospective students must have completed 62 hours of prescribed lower-division coursework at any regionally accredited college or university prior to enrollment. Admission is competitive. Official application forms and procedures for applicants also can be found in the Viewbook. Applicants must undergo criminal background checks.

Application for admission to the UTHSCSA School of Nursing must be made by February 1 for Fall Semester admission and September 1 for Spring Semester admission. Admission criteria for the BSN program are based on several factors. Applicants must successfully complete the 62 hours of UTHSCSA Core Curriculum and Field of Study Requirements for Nursing (Texas Higher Education Coordinating Board) and achieve a minimum grade point average (GPA) of 2.5 (on a 4.0 scale) for the cumulative and nursing prerequisite courses to be eligible for admission. Admission is competitive, so a higher GPA is preferred. Applicants may have to complete a pre-entry nursing assessment test. Applicants must provide evidence of good written and verbal communication skills and complete a personal interview. Due to the competitive nature of the admission criteria, other criteria may also be considered, such as: race/ethnicity, bilingual ability, current rural residency, educational attainment of applicant’s family, hometown or county of residence designated as medically underserved, willingness to work in an underserved and/or health professions shortage area, especially South Texas, and public/community service and volunteer activity, specifically in the health care field.

Applicants must have passed all sections of the Texas Success Initiative (TSI) and must meet minimum standards before they may enroll in upper-division coursework. Students may not enroll in upper-division nursing course until they have completed the 62 semester credit hours of prerequisite courses and have been formally accepted by UTHSCSA.

Applicants admitted to the School of Nursing must be certified in Health Care Provider cardiopulmonary resuscitation (CPR) before registration. Applicants must provide documentation of current health insurance and have their immunizations current. Applicants must have completed their Hepatitis B immunization series before enrolling in the nursing program. Applicants must pass a Criminal Background Check prior to admission.

Non-Degree Students
Non-degree student status may be granted to an individual who wishes to enroll in a course(s) presented by the School of Nursing without entering a degree program. Those who are eligible for Non-Degree Student Admission include: (a) a graduate of a baccalaureate program in nursing or (b) a student currently enrolled and in good standing in a baccalaureate nursing program at another institution.

Special Students will be allowed to take a maximum of twelve semester hours of courses. It is the student’s responsibility to determine if the course is transferable to her or his school. Credit for these courses toward a Bachelor of Science in Nursing degree from UTHSCSA will be considered only if the student is subsequently admitted to the program.

*patient (individual, family, aggregate, community, or society)
Currently enrolled students have priority for courses. Special Students are admitted on a first-come, first-served basis for spaces remaining in a course. Final decisions on admission will be made by the Committee on Admission, Progression and Graduation for the Undergraduate Program.

Transfer Students
Individuals who wish to transfer into the BSN program of the School of Nursing must have completed the 62 hours of prenursing coursework required by this institution and accumulated a minimum grade point average of 2.5 in required courses and an overall grade point average of 2.5. 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 UTHSCSA School of Nursing. Application deadlines are February 1 (fall) and September 1 (spring). The GPA of transfer students must be competitive for the current incoming class.

Students transferring from private or out-of-state colleges who have not been required to meet ACCUPLACER requirements must take and pass the ACCUPLACER test prior to the accumulation of 9 or more credit hours at the UTHSCSA School of Nursing. (See "Academic Policies.")

Information and procedures for applying as a Special Student or a Transfer Student may be obtained by contacting:
UTHSCSA
Office of Student Services
Nursing Admissions
Mail Code 7702
7703 Floyd Curl Drive
San Antonio, Texas 78229-3900
210-567-2670

Registration
Entering students must register and pay tuition and fees on the date of official registration listed in the Academic Calendar in order to hold their place in the class. Continuing students will not be registered after the fourth day of a regular session without the permission of the Associate Dean. Registration for summer session(s) is during a registration period in the spring.

Curriculum
The undergraduate nursing curriculum is completed in two phases, the first of which is the 62 semester hours of basic liberal arts required for admission to the School of Nursing (Prenursing Course Requirements).

The second phase encompasses the major in nursing and is presented in the junior and senior years. The curriculum includes 51 semester hours of required nursing courses and 9 semester hours of electives. Three of the 9 semester hours must be in nursing while the remaining 6 semester hours may be in nursing or any other upper-level subjects that are approved by the School of Nursing and awarded by an accredited four-year institution of higher education. (These 9 hours may be taken on a pass/fail basis.)

Students may complete the 51 hours of required nursing courses through the Generic Process or the Flexible Process. Successful completion of either pattern and the 9 hours of electives results in the awarding of the Bachelor of Science in Nursing degree. Both the Generic Process and Flexible Process can be taken either full-time or part-time. The two curricular patterns are described on the following pages.*

Time Limit
Undergraduate students must successfully complete all coursework toward the degree within four years of the date of initial enrollment in the program.

The Semester Credit Hour
The unit measure for credit purposes is the semester credit hour. One semester credit hour of credit is given for each one hour of class or three hours of laboratory/clinical computer lab experience per week per semester, with the exception of the summer session during which the class and clinical hours are concentrated but provide equivalent course time.

Course Numbers
NURS designates all required nursing courses given in the School of Nursing. NURE designates nursing electives. A four-digit number follows: the first digit indicates the earliest semester at which a course may be taken or at which a course is usually taken; the second digit indicates the semester hours credit given for the course; the last two digits are the course identification number.

Distance Technologies
Faculty in the School of Nursing employ a variety of strategies to conduct courses including interactive television (two-way audio and video) and computer technology which may be used for a portion or all of a course as a long-distance learning strategy.

Learning Lab Participation
Active participation in learning laboratories is required of all students. Such activities include performing procedures (physical exam techniques, bed baths, range of motion exercises, etc.) preparing students for professional clinical practice.

Clinical Practicum Participation
Active participation in clinical learning experiences is mandatory. Students who miss more than 10% of the required clinical hours in a course may not continue in the course.

Independent Study
Undergraduate nursing 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 Student Information Office in the School of Nursing. The Committee on Undergraduate Studies or Committee on Graduate Studies must approve the Independent Study before a student can register for the course. Deadlines for submission of Inde-
dependent Studies are April 15 for summer and fall semesters and October 15 for spring semesters.

The Generic Process
This curricular pattern is designed for the majority of the student body who enter the School of Nursing without prior nursing knowledge or skills. Completion of the program usually requires four semesters of full-time study.* Part-time enrollment in the program is an option.

Program Plan (Full-time Study)**

<table>
<thead>
<tr>
<th>Semester</th>
<th>Course Code</th>
<th>Course Title</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>NURS 3209</td>
<td>Introduction to Professional Nursing</td>
<td>2.0</td>
</tr>
<tr>
<td></td>
<td>NURS 3312</td>
<td>Strategies for Professional Nursing: Pharmacotherapeutics</td>
<td>3.0</td>
</tr>
<tr>
<td></td>
<td>NURS 3802</td>
<td>Strategies for Professional Nursing: The Nature of Health Transitions</td>
<td>8.0</td>
</tr>
<tr>
<td>II</td>
<td>NURS 3203</td>
<td>Strategies for Professional Nursing: Research</td>
<td>2.0</td>
</tr>
<tr>
<td></td>
<td>NURS 3520</td>
<td>Strategies for Professional Nursing: Mental Health Transitions</td>
<td>5.0</td>
</tr>
<tr>
<td></td>
<td>NURS 3610</td>
<td>Strategies for Professional Nursing: Chronic Health Transitions</td>
<td>6.0</td>
</tr>
<tr>
<td>III</td>
<td>NURS 4425</td>
<td>Strategies for Professional Nursing: Childbearing Families</td>
<td>4.0</td>
</tr>
<tr>
<td></td>
<td>NURS 4435</td>
<td>Strategies for Professional Nursing: Childrearing Families</td>
<td>4.0</td>
</tr>
<tr>
<td></td>
<td>NURS 4410</td>
<td>The Nurse as Professional: Leader-Manager</td>
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<tr>
<td>IV</td>
<td>NURS 4203</td>
<td>The Nurse as a Professional</td>
<td>2.0</td>
</tr>
<tr>
<td></td>
<td>NURS 4614</td>
<td>Strategies for Professional Nursing: Major Health Transitions</td>
<td>6.0</td>
</tr>
<tr>
<td></td>
<td>NURS 4514</td>
<td>Strategies for Professional Nursing: Community as Partner</td>
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</tr>
<tr>
<td></td>
<td>Upper-division Electives</td>
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<tr>
<td></td>
<td>(3 semester hours must be in nursing)</td>
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<td></td>
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<td></td>
<td><strong>Total</strong></td>
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<td><strong>60.0</strong></td>
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Required Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>NURS 3209</td>
<td>Introduction to Professional Nursing</td>
<td>2.0</td>
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</table>

2.0 Semester Credit Hours
Prerequisite: Admission to the program
This course provides an introduction to professional nursing and the role of the nurse in customizing the promotion and maintenance of health. Course content includes the nature and history of professionalism and processes underlying professional nursing, basic concepts of health and illness transitions, and legal considerations in nursing practice.

NURS 3312 Strategies for Professional Nursing: Pharmacotherapeutics (3 Cr Theory)

3.0 Semester Credit Hours
Prerequisites or concurrent: Generic Process: NURS 3209; Flexible Process: admission to the program
This course introduces basic concepts of pharmacotherapy and the scientific basis of pharmacotherapeutics with legal/ethical guidelines for the nursing profession. The role of drug therapy in health promotion and in the prevention and treatment of specific health transitions will be emphasized. In addition, the customization of drug therapy and the partnership role of the professional nurse in drug therapy will be introduced.

NURS 3802 Strategies for Professional Nursing: The Nature of Health Transitions (4 Cr Theory, 4 Cr Clinical)

8.0 Semester Credit Hours
Prerequisites or concurrent: NURS 3209, NURS 3312
This course provides an introduction to professional nursing care of adults with transitions in health status requiring basic nursing care. The effects of health transitions and the process of adaptation of individuals and their significant others are analyzed through integrated learning experiences. A clinical practicum based upon health assessment principles provides an opportunity to plan, implement, and evaluate customized care in partnership with individuals and their significant others in a variety of environments. Health assessment addresses multiple methods and tools including physical assessment principles and skills. Emphasis is on planning and providing appropriate nursing interventions and basic psychomotor nursing skills based on understanding the nature of health transitions and their effects on the individuals. The process and application of critical thinking is designed to promote beginning scholarship.

NURS 3203 Strategies for Professional Nursing: Research (2 Cr Theory)

2.0 Semester Credit Hours
Prerequisites: completion of first semester Generic Process
The role of research in the conduct of professional nursing is examined. Classroom discussions and learning experiences focus on the value of research-based knowledge as a means to promote quality patient care. The research process provides content for evaluating quality and/or usefulness of research utilization/evidence based practice in development of nursing intervention strategies.

NURS 3520 Strategies for Professional Nursing: Mental Health Transitions (2 Cr Theory, 3 Cr Clinical)

5.0 Semester Credit Hours
Prerequisite: Completion of first semester Generic Process
This course focuses on the therapeutic use of self in the care of patients experiencing mental health transitions. Mental health transitions and therapeutic modalities are analyzed and integrated to customize care. A clinical practicum provides an opportunity to implement therapeutic relationships and customize nursing process with individuals and families experiencing mental health transitions. Culturally sensitive assessment and intervention strategies with diverse patients are addressed.

* Courses listed in this Catalog are subject to change without notice. Required courses are scheduled to be offered each fall and spring semester. Electives are offered each semester and summer session.

** Curriculum subject to revision and approval by the Board of Nursing Examiners for the State of Texas
NURS 3610 Strategies for Professional Nursing: Chronic Health Transitions
(3 Cr Theory, 3 Cr Clinical)

6.0 Semester Credit Hours
Prerequisites: completion of first semester, completion of or concurrent enrollment in NURS 3520

This course focuses on patients who are experiencing transitions in health status due to chronic illness. The effects of chronic health problems with individuals and their significant others are analyzed through integrated learning experiences. A clinical practicum provides an opportunity to demonstrate professional nursing and to apply the nursing process in a customized plan of care, developed in partnership with individuals and their significant others, to manage chronic illness. Scholarship will be developed through critical thinking and applications of theoretical concepts to clinical practice and scholarly writing.

NURS 4425 Strategies for Professional Nursing: Childbearing Families
(2 Cr Theory, 2 Cr Clinical)

4.0 Semester Credit Hours
Prerequisites: completion of first and second semesters; must be completed before enrollment in Nurse as a Professional; Leader-Manager

This course focuses on the application of theories to the nursing care of childbearing families in transition. Emphasis is on the nurse’s partnership role with childbearing families and other health care professionals in the provision of care. In addition, the course examines issues related to women’s health during the childbearing years. Ethical and legal issues relating to reproduction and to newborn nursing practice are explored.

NURS 4435 Strategies for Professional Nursing: Childrearing Families
(2 Cr Theory, 2 Cr Clinical)

4.0 Semester Credit Hours
Prerequisites: completion of first and second semesters Generic Process; NURS 4425 prerequisite or concurrent; must be completed before enrollment in Nurse as a Professional; Leader-Manager

This course focuses on the application of theories to the nursing care of children and their families in transition. Emphasis is on the nurse’s partnership role with children and their families and with other health care professionals in the provision of care. Ethical and legal issues relating to the nursing care of childrearing families are examined.

NURS 4410 The Nurse as Professional: Leader-Manager
(2 Cr Theory, 2 Cr Clinical)

4.0 Semester Credit Hours
Prerequisites: completion of first and second semesters Generic Process, NURS 4425, NURS 4435; Flexible Process: concurrent or prerequisite, NURS 4512

This course focuses on the role of the professional nurse as a leader and as a manager in the collaborative design and delivery of customized health care for patients. Traditional management theories and practices are explored, including the organization, planning, staffing, directing and controlling of various resources in diverse health care systems. A strong emphasis is placed on the development of transformational leadership. The clinical practicum provides the student with the opportunity to partner with leaders and managers to explore and influence health care delivery system issues that affect quality of care.

NURS 4203 The Nurse as a Professional
(2 Cr Theory)

2.0 Semester Credit Hours

Prerequisites: completion of first, second, and third semesters in Generic Process; completion of first and second semesters in Flexible Process

This course focuses on the nursing profession and its professional organizations. Ethical and professional issues and corresponding laws affecting the individual, the practice of professional nursing, and the nursing profession are explored. Laws that govern the role of the professional nurse are applied. Concepts of autonomy, accountability, and advocacy are integrated throughout the course.

NURS 4514 Strategies for Professional Nursing: Community as Partner
(2 Cr Theory, 3 Cr Clinical)

5.0 Semester Credit Hours
Prerequisites: Generic Process: completion of first, second, and third semesters, NURS 4203, 4614 or concurrent; Flexible Process: concurrent or prerequisite, NURS 4310

This course focuses on the roles of nursing in establishing partnerships with communities in customizing therapeutic care in order to protect, promote, and restore optimal community health. The clinical practicum provides students with opportunities to deliver quality community health care across all levels of prevention and to explore the planning and implementation of customized community health programs. Students collaborate with agencies/institutions and health care delivery systems as leader/manager partners in community health.

NURS 4614 Strategies for Professional Nursing: Major Health Transitions
(3 Cr Theory, 3 Cr Clinical)

6.0 Semester Credit Hours
Prerequisites: completion of first, second, and third semesters Generic Process, NURS 4203 or concurrent

This course focuses on nursing care of individuals across the life span who are experiencing transitions in health requiring complex nursing judgment and interventions. The clinical practicum provides an opportunity to integrate learning within varied environments, including acute-care settings and non-institutional settings in partnership with patients and other professionals.

Electives
Generic students must take nine (9) hours of upper-division electives, with three (3) hours in nursing.

The Flexible Process
The Flexible Process is an alternative approach within the undergraduate program to acquiring the Bachelor of Science in Nursing degree (BSN). This track is restricted to Licensed Vocational Nurses, with at least one year of nursing experience, and Registered Nurses. The content of the Flexible Process is the same as that of the Generic Process, but the material has been reorganized to facilitate concentrated study. The student enrolled for full-time study will find it difficult to maintain full-time employment. LVNs will receive 18 semester hours Nursing course credit and RNs will receive 30 semester hours Nursing course credit.

Through the Flexible Process, the student has the option of taking coursework and/or acquiring credit through challenge examinations.

If the student is unsuccessful in a challenge examination, he or she may take the course(s) in residence. Should a
student withdraw after failing a challenge examination, the student is not eligible for a refund since completion of the challenge examination is considered to be completion of a course. If the student successfully challenges all courses, he or she is awarded credit and is considered to have completed the 51 hours (52 hours for RN students) of required nursing courses. Challenge exams are not offered for the four Semester I LVN courses or the electives which are part of the 60-hour requirement for the BSN degree.

The following are program plans for LVNs and RNs. Part-time enrollment in the program is an option. All work toward the degree must be completed within four years of the date of initial enrollment in the program.

Program Plans (Full-time Study)

**LVN**

<table>
<thead>
<tr>
<th>Semester I (junior year)</th>
<th>Hours</th>
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<tbody>
<tr>
<td>NURS 3312 Strategies for Professional Nursing: Pharmacotherapeutics</td>
<td>3.0</td>
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<tr>
<td>NURS 3313 Strategies for Professional Nursing: Clinical Skills</td>
<td>3.0</td>
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<tr>
<td>NURS 3220 Strategies for Professional Nursing: Mental Health Transitions</td>
<td>2.0</td>
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<tr>
<td>NURS 3409 Strategies for Professional Nursing: Transition to Prof. Nursing Practice</td>
<td>4.0</td>
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<thead>
<tr>
<th>Semester II (senior year)</th>
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<tbody>
<tr>
<td>NURS 4212 Strategies for Professional Nursing: Health Assessment</td>
<td>2.0</td>
</tr>
<tr>
<td>NURS 4214 The Nurse as Professional: Research</td>
<td>2.0</td>
</tr>
<tr>
<td>NURS 4512 Strategies for Professional Nursing: Health Promotion</td>
<td>5.0</td>
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<tr>
<td>NURS 4410 The Nurse as Professional: Leader-Manager</td>
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<table>
<thead>
<tr>
<th>Semester III (senior year)</th>
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<tbody>
<tr>
<td>NURS 4203 The Nurse as Professional</td>
<td>2.0</td>
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<tr>
<td>NURS 4310 Strategies for Professional Nursing: The Family Across the Lifespan</td>
<td>3.0</td>
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<tr>
<td>NURS 4514 Strategies for Professional Nursing: Community as Partner</td>
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**RN**

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<tr>
<th>Semester I (senior year)</th>
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<tbody>
<tr>
<td>NURS 4212 Strategies for Professional Nursing: Health Assessment</td>
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<td>NURS 4312 The Nurse as Professional: Leadership</td>
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</tr>
<tr>
<td>NURS 4514 Strategies for Professional Nursing: Community as Partner</td>
<td>5.0</td>
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</table>

**Required Courses**

The first four courses for LVNs in the Flexible Process are NURS 3312, 3313, 3220, and 3409. First-semester courses are prerequisite to further progression in the program for LVNs. The curriculum is subject to revision and approval by the Board of Nursing Examiners for the state of Texas.

**NURS 3220 Strategies for Professional Nursing: Mental Health Transitions (1 Cr Theory, 1 Cr Clinical)**

Prerequisite or concurrent: NURS 3312 (Flexible Process)

This course focuses on the therapeutic use of self in the care of patients experiencing psychiatric-mental health transitions. Psychiatric and mental health transitions and therapeutic modalities are analyzed and integrated to customize care. A clinical practicum provides an opportunity to implement therapeutic relationships and customize nursing process with individuals and families experiencing mental health transitions. Culturally sensitive assessment and intervention strategies with diverse patients are addressed.

**NURS 3312 Strategies for Professional Nursing: Pharmacotherapeutics (3 Cr Theory)**

3.0 Semester Credit Hours

Prerequisite or concurrent: Generic Process: NURS 3209; Flexible Process: admission to the program

This course introduces basic concepts of pharmacotherapy and the scientific basis of pharmacotherapeutics with legal/ethical guidelines for the nursing profession. The role of drug therapy in health promotion and in the prevention and treatment of specific health transitions will be emphasized. In addition, the customization of drug therapy and the partnership role of the professional nurse in drug therapy will be introduced.

**NURS 3313 Strategies for Professional Nursing: Clinical Skills (1 Cr Theory, 2 Cr Clinical)**

3.0 Semester Credit Hours

Prerequisite: admission to the program (Flexible Process)

This course focuses on clinical nursing skills commonly employed by professional nurses in the provision of competent nursing care to patients experiencing transitions in health status. Emphasis is on the theoretical basis for the skills, correct psychomotor techniques, and customization of these skills in various simulated patient situations. Students are expected to integrate knowledge from the basic physical and psychosocial sciences into the acquisition of new skills. Learning experiences include content presentation/discussions, independent study with various modalities, and supervised laboratory practice.

**NURS 3409 Strategies for Professional Nursing: Transition to Professional Nursing Practice (2 Cr Theory, 2 Cr Clinical)**

4.0 Semester Credit Hours

Prerequisites or concurrent: NURS 3220, NURS 3312, NURS 3313 (Flexible Process)

This course focuses on assuming the professional nursing role and its application in practice. Emphasis is on the care of the individual and families requiring different levels of nursing interventions. This is accomplished in partnership with other health care professionals in various structured settings. Students

**NOTE:** 3 credits nursing elective and 4-5 credits non-nursing electives are also required for graduation. Students have the option of taking these fall, spring, or summer semester(s).
will be provided the opportunity to develop scholarly inquiry as they integrate professional nursing concepts with previous learning and experience.

NURS 4203 The Nurse as a Professional
(2 Cr Theory)

2.0 Semester Credit Hours
Prerequisites: completion of first, second, and third semesters in Generic Process; completion of first and second semesters in Flexible Process

This course focuses on the nursing profession and its professional organizations. Ethical and professional issues and corresponding laws affecting the individual, the practice of professional nursing, and the nursing profession are explored. Laws that govern the role of the professional nurse are applied. Concepts of autonomy, accountability, and advocacy are integrated throughout the course.

NURS 4212 Professional Nursing: Health Assessment
(1 Cr Theory, 1 Cr Lab)

2.0 Semester Credit Hours
Prerequisite: NURS 3220, 3312, 3313, 3409, LVNs only

This course focuses on the theory and skills of health assessment, including health history and physical examination of infants and adults. Students apply selected principles and skills in a simulated practice setting. Clock hours: one and one-half class hours and 2 1/2 lab hours per week. Lab fee: $30. Exam fee: $30.

NURS 4214 Strategies for Professional Nursing: Research
(2 Cr Theory)

2.0 Semester Credit Hours
Prerequisites: completion of first semester courses Flexible Process if LVN

The role of research in the conduct of professional nursing is examined. Classroom discussions and learning experiences focus on the value of research-based knowledge as a means to promote quality patient care. The research process provides content for evaluating quality and/or usefulness of research utilization/evidence-based practice in the development of nursing intervention strategies.

NURS 4310 Strategies for Professional Nursing:
The Family Across the Lifespan
(2 Cr Theory, 1 Cr Clinical)

3.0 Semester Credit Hours
Prerequisites: NURS 4312, NURS 4410 (Flexible Process)

This course focuses on the family as a basic unit of society and promotion of family health across the lifespan in partnership with the nurse. Opportunity is provided to apply nursing theory and family assessment data to customize a plan of care using the nursing process in the family’s primary setting. Topics include variables affecting families, family assessment, adaptive problems, anticipatory guidance, teaching, family development theory, sexuality, and aging.

NURS 4312 The Nurse as Professional:
Leadership (RN only)
(1 Cr Theory, 2 Cr Clinical)

3.0 Semester Credit Hours
Prerequisites or concurrent: NURS 4212, NURS 4512 (Flexible Process)

This course focuses on the role of the professional nurse as a leader and as a manager in the collaborative design and delivery of customized health care for patients. Traditional management theories and practices are built upon, including the organization, planning, staffing, directing, and controlling of various resources in diverse health care systems. A strong emphasis is placed on the development of transformational leadership. The clinical practicum provides the student with the opportunity to partner with leaders and managers to explore and influence health care delivery system issues that effect quality of care.

NURS 4410 The Nurse as Professional: Leader-Manager
(Flex-LVNs Only)
(2 Cr Theory, 2 Cr Clinical)

4.0 Semester Credit Hours
Prerequisites: completion of first and second semesters Generic Process, NURS 4425, NURS 4435; Flexible Process: concurrent or prerequisite, NURS 4512

This course focuses on the role of the professional nurse as a leader and as a manager in the collaborative design and delivery of customized health care for patients. Traditional management theories and practices are explored, including the organization, planning, staffing, directing and controlling of various resources in diverse health care systems. A strong emphasis is placed on the development of transformational leadership. The clinical practicum provides the student with the opportunity to partner with leaders and managers to explore and influence health care delivery system issues that effect quality of care.

NURS 4512 Strategies for Professional Nursing:
Health Promotion
(3 Cr Theory, 2 Cr Clinical)

5.0 Semester Credit Hours
Prerequisites: NURS 3312, 3220, 3313, 3409; NURS 4212 or concurrently (Flexible Process)

This course is the study of factors contributing to the health of an individual and the role of the nurse in assessing and meeting needs of the individual. Concepts include wellness, stress, patienthood, groups, crisis, communication, nursing process, teaching/learning, and professionalism. The clinical practicum provides an opportunity for students to care for individuals experiencing health disturbances and to assist them in establishing and/or maintaining healthy living patterns. Clock hours: three class hours; eight practicum hours per week. Exam fee: $15.

NURS 4514 Strategies for Professional Nursing:
Community as Partner
(2 Cr Theory, 3 Cr Clinical)

5.0 Semester Credit Hours
Prerequisites: Generic Process: completion of first, second, and third semesters, NURS 4614; Flexible Process: concurrent or prerequisite, NURS 4310

This course focuses on the roles of nursing in establishing partnerships with communities in customizing therapeutic care in order to protect, promote, and restore optimal community health. The clinical practicum provides students with opportunities to deliver quality community health care across all levels of prevention and to explore the planning and implementation of customized community health programs. Students collaborate with agencies/institutions and health care delivery systems as leader/manager partners in community health.

Credit by Examination
Credit by examination is validation of the candidate’s competencies and the awarding of credit based upon satisfactory achievement of objectives in the program by examination. The candidate is then allowed to matriculate the courses appropriate for the demonstrated level of achievement. Credit by examination is offered for selected required courses in the Flexible Process. (Courses in the Generic Process and nursing electives cannot be completed through challenge
examinations.) In the Flexible Process it is possible to acquire most of the required nursing courses through credit by examination.

LVN students who have been admitted to the Flexible Process and who have earned credit for the first four courses, and RN students may choose to challenge the other seven courses in the Flexible Process sequence for credit by examination. They will have access to all materials in the campus learning center and may obtain course syllabi on the School of Nursing Web site (http://nursing.uthscsa.edu). Students attempting credit by examination will not, however, receive tutoring by the School of Nursing faculty in preparation for a challenge examination.

New RN students and ongoing (second and third semester) students attempting credit by examination must register early. Portions of the examinations for credit are scheduled before the official registration date. Early registration is held approximately four weeks prior to the official registration date each semester.

Students may not take an examination for credit if they have completed the course(s) with either a passing or failing grade or if they have withdrawn from the course(s).

Credit will be granted for a grade of C or higher on a challenge examination. Credit earned by examination will be recorded as the actual letter grade achieved and will be used in computing the cumulative GPA.

Students who are unsuccessful in attempting CBE must take the courses the next semester that the course is offered.

**Electives**

Eight (8) hours of upper-division electives are required for RNs in the Flexible Process to complete the program. At least three (3) hours must be in nursing. Seven (7) hours of upper-division electives are required for LVNs, three of which must be in nursing.

Although electives are available each semester and summer session, offerings vary depending upon expressed student interest and faculty availability.

Elective offerings will be published each semester/session. Electives may be taken on a pass/fail basis. Challenge examinations are not offered for electives.

**TURE 3010** Mentored Research Practicum: Health Transitions (1–2 Cr Clinical)

1.0–2.0 Variable Semester Credit Hours

Prerequisites: concurrent enrollment in NURE 3115, receipt of a research scholar award, file completed, signed contract in student's Undergraduate/Graduate Nursing Office File

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. This practicum course, the student actively participates in selected aspects of a research project with a faculty mentor.

**TURE 3011** Mentored Research Practicum: Chronic Health Transitions (1–2 Cr Clinical)

1.0–2.0 Variable Semester Credit Hours

Prerequisites: concurrent enrollment in NURE 3115, receipt of a research scholar award, file completed, signed contract in student's Undergraduate/Graduate Nursing Office File

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. This practicum course, the student actively participates in selected aspects of a research project with a faculty mentor.

**TURE 3012** Mentored Research Practicum: Health and Illness (1–2 Cr Clinical)

1.0–2.0 Variable Semester Credit Hours

Prerequisites: concurrent enrollment in NURE 3115, receipt of a research scholar award, file completed, signed contract in student's Undergraduate/Graduate Nursing Office File

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.

**TURE 3013** Mentored Research Practicum: Children and Families (1–2 Cr Clinical)

1.0–2.0 Variable Semester Credit Hours

Prerequisites: concurrent enrollment in NURE 3115, receipt of a research scholar award, file completed, signed contract in student's Undergraduate/Graduate Nursing Office File

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.

**TURE 3014** Mentored Research Practicum: Community (1–2 Cr Clinical)

1.0–2.0 Variable Semester Credit Hours

Prerequisites: Concurrent enrollment in NURE 3115, receipt of a research scholar award, file completed, signed contract in student's Undergraduate/Graduate Nursing Office File

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.

**TURE 3015** Mentored Research Practicum: Policy (1–2 Cr Clinical)

1.0–2.0 Variable Semester Credit Hours

Prerequisite: concurrent enrollment in 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.

**TURE 3016** Bridge Course University Hospital

1.0–3.0 Variable Semester Credit Hours

Prerequisite: good academic standing; enrolled in 3rd or 4th semester undergraduate, generic program or senior level flex program; must meet with faculty prior to enrollment

“Bridge to Success” is a clinical preceptorship program. The goals of the program are to provide a more intensive one-on-one clinical learning experience with a clinical role model and better prepare the Graduate Nurse to assume the roles of the professional nurse in a more efficient and timely manner. This is an intense hands-on course.
NURE 3090  Topics of Special Interest in Nursing: Adolescent Pregnancy: Nursing Implications of Biological, Psychological, and Sociological Perspectives  
3.0 Semester Credit Hours  
Prerequisites: NURS 4425  
This course 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.

NURE 3091  Independent Study in Nursing  
1.0–3.0 Semester Credit Hours  
Prerequisite: consent of instructor  
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.

NURE 3105  Laughter is the Best Medicine: Interdisciplinary Elective about Humor, Healing, and Health Care  
1.0 Semester Credit Hour  
The course focuses on the integration of humor and laughter into interdisciplinary partnerships with patients and families. Physiological and psychological effects of humor and their impacts on healing and health are explored. Stress and coping processes associated with humor are customized with professional practices and therapies. Impacts of cultural similarities and differences in humor are discussed within the context of the professional role in providing health care to patients and families.

NURE 3115  Applications of Research in Nursing: Mentored Research Scholars  
1.0 Semester Credit Hour  
Prerequisites: receipt of Research Scholar Award, file completed, signed contract in student's Nursing office file  
The course is taken each semester the student is designated as a Research Scholar. The course provides an opportunity for designated Student Research Scholars to work closely with a faculty member who is actively engaged in the conduct of research and to share learning experiences and gain insights through discussion in a Research Scholar Seminar.

NURE 3301  Perioperative Nursing I  
3.0 Semester Credit Hours  
Prerequisites: 3802, students entering final semester, permission of the instructor  
This “hands-on,” 15-week course is designed to provide the opportunity for students to learn to be able to function as beginning staff nurses in the operating room (OR) following graduation. The course reviews the framework of Perioperative Nursing and adds the needed depth and breadth necessary to work in ORs as novices. Theory and roles of perioperative nursing, introduced in semester I, will be expanded upon. (It differs from the elective course, “Intro. to Perioperative Nursing,” where only a general orientation to the OR is presented in a three-week course.) The clinical practicum is based on the utilization and application of research. Students are expected to provide perioperative care to select populations such as general and OB/Gyn surgery patients. The role of the professional circulating nurse will be emphasized, with an exposure to the scrub role. Critical thinking, problem solving, and decision-making are integral parts of the course, and are incorporated into both didactic and practicum experiences. The student will be required to demonstrate basic perioperative competencies by the conclusion of the course.

NURE 3304  Contemporary Issues Related to Death and Dying  
3.0 Semester Credit Hours  
Prerequisites: Generic Process—NURS 3802, NURS 3209, admission to Flexible Process or permission of instructor  
This course gives students an opportunity to explore in-depth issues related to death and dying at both the personal and professional level. Emphasizing the positive and necessary values of compassion, listening, and tolerance for the views of others, this course encourages participants to engage in a constructive process of self-discovery about death and dying. Areas of discussion include: valuing, definitions of death, stages of dying, emotions surrounding loss, the business of death (autopsy, funeral, cremations, burial), the ethics of death (advance directives, euthanasia, suicide, assisted suicide, organ donation), and transcultural aspects related to death and dying.

NURE 3305  Topics of Special Interest to Nursing: Scholarly Writing for Nurses  
3.0 Semester Credit Hours  
This course is designed to prepare the undergraduate and 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 articles for nursing journals or patient education newsletters.

NURE 3306  Introduction to the Role of Childbirth Educator  
3.0 Semester Credit Hours  
Prerequisites: NURS 3209, 3310, 3802, 4425 or admission to Flexible Process  
This course will focus on an in-depth exploration of childbirth education. It will utilize the nursing process in an exploration of a nurse’s role in family-centered childbirth education. Students will examine the philosophy of childbirth education and the roles of the childbirth educator in consumer advocacy. Essential childbirth preparation core content and coping techniques will be emphasized in light of family needs and effective teaching strategies. Students will have the opportunity to examine their own values and sociocultural aspects of clients in the assessment, planning, implementation, and evaluation of patient and family teaching.

NURE 3309  Renal Disease, Transplantation, Complications  
3.0 Semester Credit Hours  
Prerequisites: 1st semester Generic NURS 3802; admission to Flexible Process  
This course is an in-depth exploration of the plight of patients as they deal with End Stage Renal Disease resulting from Diabetes and Hypertension. The physical and psychological responses of the patient, family, and community to End Stage Renal Disease and Renal Transplantation are identified. Implications for Nursing to enhance as healthy adjustment to a potentially terminal illness are stressed.

NURE 3369  Hispanic Health Concerns: A Nursing Perspective  
3.0 Semester Credit Hours  
Prerequisite: NURS 3802 or graduate standing  
This course is designed to provide the student with a comprehensive, in-depth view of topics and issues influencing the health of the Hispanic population in order to enhance the cultural sensitivity of the health care provider. An overview of the characteristics of the
Hispanic population is given as well as data in relation to lifestyle, major health concerns, and research findings on Hispanic health across the life cycle. The use of folk practices, herbal medicine, and utilization of the health care delivery system and its implications to nursing practice is addressed. The role of the nurse in disease prevention is explored within the framework of the life cycle. Nursing interventions to overcome language barriers are provided including sources for Spanish-language, culturally relevant publications.

NURS 3383  Nursing Care of Children with Developmental Disabilities in the Community
3.0 Semester Credit Hours
Prerequisite: NURS 4435
This is a multidisciplinary course that will include students in nursing, social work, early childhood, and special education. The course will focus on the needs of children with developmental disabilities and their families in the community. Concepts and content to be covered include: family adaptation, normalization, behavioral and school problems, the impact of the Americans with Disability Act and Public Law 99-457, selected disease entities, and assessment of development for early detection of problems. Examination of many issues that exist in the community for children with developmental disabilities as well as transition to independent living will be explored. The role of the nurse on an interdisciplinary team that works to enable and empower families will be modeled for the student.

NURS 3356  Nursing Interventions in Pain
3.0 Semester Credit Hours
Prerequisite: NURS 3802 or NURS 3409
This course is a survey and analysis of current theories about pain and its alleviation and an exploration of nurses’ role in pain management.

NURS 3090  Topics of Special Interest in Nursing: Application of Theory and Scientific Inquiry
3.0 Semester Credit Hours
Prerequisites: minimum GPA: 3.0; senior standing
This course focuses on the development and implementation of a plan for scientific inquiry. A major emphasis is placed on how theory and research affect nursing practice. Attention is given to the selection and study of nursing practice issues pertinent to beginning nursing practice. Each student is guided through a literature review and analysis regarding her/his selected focus. A proposal is developed for a project to study the nursing practice issue and subsequently to explore further the issue through direct experience, e.g., observation and/or participation. Students will have the opportunity to demonstrate leadership qualities through self-directed activities, assessment of findings from activities, and communication of project results. Attention is given to the process of scientific inquiry and the potential implications of results on nursing practice and the health care community.

NURS 3310  Introduction to Computing in Health Care
(2 Cr Theory/1 Cr Lab)
3.0 Semester Credit Hours
Prerequisite: Permission of the instructor
An exploration of the role of the professional nurse in design, implementation, and use of computing and high technology medical devices in the health care setting. Theories of the teaching-learning process, change process, and information management, are used to critically examine issues related to the use of state-of-the-art information systems in the health care system. The course includes opportunities for the student to expand cognitive and psychomotor skills in applying a variety of computing applications to complex health care issues.

NURS 3312  Theoretical Foundations of Complementary and Alternative Therapies in Nursing
(3 Cr Theory)
3.0 Semester Credit Hours
Prerequisites: This course is offered to generic students who have completed NURS 3802, and flex students who have been admitted to the program.
The purpose of this course is to introduce selected complementary and alternative therapies cited in the health care literature. The course will critically evaluate these complementary and alternative therapies for potential benefit in maintaining and improving health. The course will incorporate current evidence and efficacy relating to use and safety of complementary and alternative therapies.

NURS 4302  Flex Bridge in Critical Care
(1 Cr Theory/2 Cr Clinical)
3.0 Semester Credit Hours
Prerequisites: The student must be a licensed LVN or RN and have completed the undergraduate flexible process courses 3409 and 4212.
Flex Bridge I in Critical Care at University Hospital is offered as a clinical preceptorship in critical care for highly motivated undergraduate students enrolled in the RN completion program. In order to complete the clinical requirements for this course, students are provided the opportunity to rotate through at least 3 critical care areas of the hospital. These include the Surgical Trauma Intensive Care Unit, Pediatric Intensive Care Unit, Neonatal Intensive Care Unit, and the Emergency Department. This is an intense “hands-on” course in which each student is provided with an experienced preceptor in each of the critical care areas they “bridge” in. In addition to the clinical experience, the student will explore various concepts unique to the critical-care environment. These include, but are not limited to, complex case studies, pathophysiology, ethical dilemmas, managed care, etc.

NURS 3316  Chronic Respiratory Illness in Children and Adults
(3 Cr Theory)
2.0 Semester Credit Hours
Prerequisites: Undergraduate generic: NURS 3802; Undergraduate flex: NURS 4512
This course is developed to present specialized nursing care of chronic respiratory illnesses across the lifespan. Included in the classroom experiences are relevant issues of the most prevalent respiratory illnesses in the population today. These will be explored in terms of physiologic rationale, clinical indicators, therapeutic goals, patient teaching, and use of specialized respiratory equipment as supported by research and case studies. Special emphasis on care occurring in the community, homes, and schools will be discussed with observational experiences at the American Lung Asthma Camp for Children.

NURS 3321  Animal-Assisted Activities and Therapy in Health Care
(3 Cr Theory)
3.0 Semester Credit Hours
Prerequisites: Undergraduate generic: 3802; Undergraduate flex: 4512; Graduate: no graduate course prerequisites; acceptance to the program
This course is designed to explore the use of animal-assisted activities (AAA) and animal-assisted therapy (AAT) in various health care environments including selected observational experiences. An overview of the history and current understanding of the human-animal bond will be discussed including identified benefits as supported by observation, research, and case studies. Relevant national, state, and local organizations, laws, and standards will be introduced. Students will select specific environments, populations, and animals for further explorations. Various animals will be included in the classroom experiences.
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 Credit (CR) or Fail and no letter grade is assigned. All required nursing courses in the Bachelor of Science in Nursing program (Generic Process and Flexible Process) 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.

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)

Incomplete class or laboratory work

With the permission of the course instructor, a grade of Incomplete (I) may be recorded if a student in good standing has not completed all class or laboratory assignments. Incomplete work must be made up by the end of the following regular semester after the symbol I is recorded, provided the student does not wish to progress immediately to the next course. If a student wishes to enroll in the next required course, the Incomplete must be removed by the 12th day of the following semester. Incomplete grades not completed within the specified time shall be changed to the grade of F, and the course must be repeated if credit is desired.

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 nationally normed tests throughout the curriculum and to make satisfactory scores on such tests. In the last semester of the curriculum, students will be required to take a comprehensive exam and to make a satisfactory score on such an exam prior to graduation and/or taking the licensing exam.

Scholastic probation

A student whose GPA falls below 2.0 but who 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 earns a D, F, or WF in a required nursing course will be dismissed and must seek readmission on a space-available basis. Applications for readmission are subject to review by the Subcommittee on Admission, Progression, and Graduation for the Undergraduate Program (APG).

Students who are reinstated following academic dismissal are automatically placed on scholastic probation for the semester/term following readmission, even if her or his GPA is 2.0 or over.

A student who fails to remediate her or his probationary status in one semester/term will be dismissed and will be ineligible for readmission.

A student who fails or withdraws failing from two required nursing courses (or from the same course twice) 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.

Intrasemester report

At the middle of each semester, the faculty report to the Associate Dean for Undergraduate Nursing Program all students doing work below the passing grade. The Associate Dean, in turn, sends notification to the student(s).

Semester reports

Grade reports are available to students at the end of each semester, via Inside.UTHSCSA on the University’s portal at http://inside.uthscsa.edu.

Grades in required courses

A student must earn a minimum grade of C in each required nursing course. A grade of F in either clinical or theory results in a grade of F in a required course. If a student earns a grade of less than C in a required course and is in good standing in the School of Nursing, the student may apply for readmission. A student who has failed or withdrawn failing from two required courses (or failed the same course twice) is ineligible for readmission.

Leave of absence

Under special circumstances, the student who is in good standing may be granted a leave of absence from the undergraduate program for a maximum period of one year,
A student may drop a course under the following provisions:

- A student may drop a course before the first examination/graded assignment without a grade being recorded on the transcript.
- With the approval of the faculty and Associate Dean for Undergraduate Nursing Program, a student may drop a course at any time before the last official class day in any semester. If a passing grade was maintained at the time of the drop, the symbol WP is recorded. If the student was failing the course at the time of the drop, a WF is recorded.

Withdrawal

Withdrawal refers to the procedure by which students remove themselves from all courses in which they are enrolled. A student wishing to withdraw from the School of Nursing for the remainder of a particular session initiates the process through the Academic Coordinator in the undergraduate office in the School of Nursing.

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 may withdraw, with the approval of the faculty, any time before the last official class day.

If a student withdraws before the first examination/graded assignment, the transcript will indicate withdrawal.

If a student withdraws after the first examination/graded assignment, the symbol WP will be recorded for those courses in which a passing grade was earned, and the symbol WF for those in which a failing grade was earned. The symbol WF is recorded on the transcript but is not computed in the grade point average.

If a student withdraws from a required nursing course while failing, he or she may reenroll only once. (See “Readmission.”)

Changing Course Registration

To or From Pass/Fail

If the course has an option for a pass/fail or letter grade, the student may change her or his registration from a pass/fail basis to a letter grade basis, or from a letter grade basis to a pass/fail basis, not later than the end of the official drop period which is the first four weeks of the regular semester and the first two weeks of the summer session.

Correspondence Courses

Students wishing to enroll for correspondence courses and/or courses in another institution while enrolled in the School of Nursing must obtain permission from the Associate Dean for such courses to be accepted for credit by the School of Nursing. Students must be in good scholastic standing and must have demonstrated their ability to carry the increased course load to receive such permission. Not more than 12 hours of the 122 hours required for the degree may be taken by correspondence.

Transferring Grades

An applicant, whether a new student or a former student of the School of Nursing who has attended another college, must submit all previous college records when applying for admission to the School of Nursing. Transferred grades are...
recorded as submitted. Former students who attended another institution are responsible for providing a transcript of their records to the School of Nursing before reentering.

Graduate Credit
Undergraduate students may be admitted to graduate courses in nursing only in the last semester of the senior year. Three 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 may be applied toward the graduate degree only after the student has been admitted to and is enrolled in the graduate program.

Auditing
Students may audit nursing courses only with the permission of the instructor teaching the course. Fees for auditing nursing courses are required of students who are not enrolled full-time. Students who are enrolled less than full-time in nursing courses may audit additional nursing courses for a fee of $5 per course. Individuals who are not enrolled in nursing courses may audit nursing courses for a fee of $25 per course. Students must have permission of the instructor to audit a course. No audited courses may be taken subsequently for credit.

Transfer of Upper-Division Electives
Upper-division nursing electives taken through another NLN- or CCNE-accredited baccalaureate program may be accepted for credit. The course must be approved by the Committee on Admission, Progression, and Graduation for the Undergraduate Program before credit is granted. Grades earned for upper-level electives can be transferred only to the School of Nursing for credit.

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 in San Antonio. Courses completed through credit by examination on this campus will be considered to have been completed in residence.

Procedures for Degree Candidates
Degree candidates who are taking upper-division electives off campus must supply the School of Nursing with a transcript from each school where work is done. Transcripts must be submitted as each course is completed. A candidate for a degree must (1) register in the semester in which the degree is to be received and (2) file a degree application form with the Office of the Registrar during the semester prior to the term in which the degree is to be granted. It is a requirement that a candidate for the degree be enrolled in the semester or summer session in which the degree is awarded. Candidates who have completed requirements at UTHSCSA but must complete elective requirements at another university during the final term may register in absentia for the purpose of having the degree conferred. Degrees will be conferred only on official dates publicly announced. Commencement ceremonies are held in 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.

Honors designations are based on the following scale:

<table>
<thead>
<tr>
<th>Grade Point Average</th>
<th>Designation</th>
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<tbody>
<tr>
<td>3.0–3.39</td>
<td>Honor</td>
</tr>
<tr>
<td>3.4–3.59</td>
<td>Cum Laude</td>
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<tr>
<td>3.6–3.79</td>
<td>Magna Cum Laude</td>
</tr>
<tr>
<td>3.8–4.0</td>
<td>Summa Cum Laude</td>
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</tbody>
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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) administered by the Board of Nurse Examiners for the state of Texas. 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 convicted of a felony, a misdemeanor involving moral turpitude, or engaged in conduct resulting in the revocation of probation imposed pursuant to such a conviction.

As of 1996, an individual applying for the NCLEX-RN 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, Texas Peer Assistance Program for Nurses, 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 for substance abuse.)
6. Have you ever been issued any order concerning your eligibility for examination or licensure by this Board?

If the answer to any of these questions is “yes,” the student must contact the Board of Nurse Examiners.
- The student will receive information about Initial
Licensure and instructions about FBI background checks through the School of Nursing.

- All 122 hours for the degree must be completed before the student is eligible to take the NCLEX-RN.
- 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.

**General Policies**

**Student 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 in either long-session semesters or summer terms.

Students may be employed as patient care 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 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, as persons who are convicted of violation of the Nurse Practice Act may not be eligible to take the NCLEX-RN 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 which 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.

**Professional Liability Insurance**
All students enrolling in nursing courses will be required to show evidence of professional liability insurance coverage in at least a minimum amount of $1,000,000 limit each claim and $3,000,000 limit aggregate in order to complete registration. Such insurance must be purchased through the University at the time of registration. Coverage is required from the student’s first day of class throughout her or his program of study. Liability insurance purchased through the University is applicable to the student role only.

**Uniforms**
Students are responsible for purchasing white uniforms and laboratory coats. For some clinical experiences white blouses/shirts and navy skirts/pants will be required. Identification patches will be worn on all uniforms and laboratory coats and may be purchased from the Health Science Center Bookstore.

**Change of Address**
If a student, after registration, changes her or his home or campus address, he or she is expected to notify the Office of Student Services (or go to [http://inside.uthscsa.edu/](http://inside.uthscsa.edu/)) and the Undergraduate Office in the School of Nursing. The student will be held responsible for any communication from the school offices sent to the address last given.

**Full-Time Student Status**
A full-time undergraduate student is one who is registered for 12 or more semester credit hours during a regular semester. Full-time enrollment is six or more semester credit hours in one summer session or nine semester credit hours in two sessions of one summer.

**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.

**Classes and Clinical Practicum**
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 the completion of the Generic Process curriculum or Flexible Process curriculum.

**Organizations**
Organizations for students of the School of Nursing as well as groups whose membership is open to all UTHSCSA students are described in the [UTHSCSA Student Guide](#).

**Expenses**
Approximate costs are available through Nursing Admissions, the Office for Students, or the [Certificate and Degree Programs](#) brochure.
## School of Nursing
### Academic Calendar 2005–2006

#### Fall 2005

<table>
<thead>
<tr>
<th>Date</th>
<th>Activity</th>
<th>Student Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monday, May 02, 2005</td>
<td>Web Registration Opens for Fall 2005</td>
<td>Continuing</td>
</tr>
<tr>
<td>Monday–Friday, August 22–26, 2005</td>
<td>Orientation &amp; Registration—New Students only</td>
<td>New</td>
</tr>
<tr>
<td>Monday, August 29, 2005</td>
<td>1st Class Day</td>
<td>All</td>
</tr>
<tr>
<td>Monday, September 05, 2005</td>
<td>*University Holiday (Offices Closed)</td>
<td>All</td>
</tr>
<tr>
<td>Wednesday, September 14, 2005</td>
<td>Census Day</td>
<td>All</td>
</tr>
<tr>
<td>Thursday, November 24, 2005</td>
<td>*University Holiday (Offices Closed)</td>
<td>All</td>
</tr>
<tr>
<td>Friday, November 25, 2005</td>
<td>*University Holiday (Offices Closed)</td>
<td>All</td>
</tr>
<tr>
<td>Friday, December 09, 2005</td>
<td>Last Class Day</td>
<td>All</td>
</tr>
<tr>
<td>Friday, December 16, 2005</td>
<td>Term Concludes</td>
<td>All</td>
</tr>
<tr>
<td>Friday, December 23, 2005</td>
<td>Graduation (No Ceremony)</td>
<td>All</td>
</tr>
<tr>
<td>*University Holidays Tentative</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### Spring 2006

<table>
<thead>
<tr>
<th>Date</th>
<th>Activity</th>
<th>Student Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tuesday, November 01, 2005</td>
<td>Web Registration Opens for Spring 2006</td>
<td>Continuing</td>
</tr>
<tr>
<td>Monday–Friday, January 9–13, 2006</td>
<td>Orientation &amp; Registration—New Students only</td>
<td>New</td>
</tr>
<tr>
<td>Monday, January 16, 2006</td>
<td>*University Holiday (Offices Closed)</td>
<td>All</td>
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<tr>
<td>Tuesday, January 17, 2006</td>
<td>1st Class Day</td>
<td>All</td>
</tr>
<tr>
<td>Wednesday, February 01, 2006</td>
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<td>Monday, February 20, 2006</td>
<td>*University Holiday (Offices Closed)</td>
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<tr>
<td>Monday, March 13, 2006</td>
<td>Spring Break Begins</td>
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</tr>
<tr>
<td>Friday, March 17, 2006</td>
<td>Spring Break Ends</td>
<td>All</td>
</tr>
<tr>
<td>Friday, May 05, 2006</td>
<td>Last Class Day</td>
<td>All</td>
</tr>
<tr>
<td>Friday, May 12, 2006</td>
<td>Term Concludes</td>
<td>All</td>
</tr>
<tr>
<td>Thursday, May 18, 2006</td>
<td>Graduation Rehearsal</td>
<td>1:00 PM</td>
</tr>
<tr>
<td>Sunday, May 21, 2006</td>
<td>Graduation—Laurie Auditorium</td>
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<td>Monday, May 29, 2006</td>
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<tr>
<td>*University Holidays Tentative</td>
<td></td>
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</tbody>
</table>

#### Summer 2006

<table>
<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>Monday, April 03, 2006</td>
<td>Web Registration Opens for Summer 2006</td>
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</tr>
<tr>
<td>Monday, May 22, 2006</td>
<td>1st Class Day</td>
<td>All</td>
</tr>
<tr>
<td>Monday, May 29, 2006</td>
<td>*University Holiday (Offices Closed)</td>
<td>All</td>
</tr>
<tr>
<td>Friday, June 02, 2006</td>
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</tr>
<tr>
<td>Tuesday, July 04, 2006</td>
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<td>Thursday, August 10, 2006</td>
<td>Last Class Day</td>
<td>All</td>
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<tr>
<td>Friday, August 11, 2006</td>
<td>Term Concludes</td>
<td>All</td>
</tr>
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<td>Saturday, August 19, 2006</td>
<td>Graduation (No Exercises)</td>
<td>All</td>
</tr>
<tr>
<td>*University Holidays Tentative</td>
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<td></td>
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</tbody>
</table>

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*Note: The 2006–2007 Academic Calendar will be made available on the Student Services Web in the Fall.*
GRADUATE PROGRAM IN NURSING

The Health Science Center’s Graduate Program in Nursing is designed to provide qualified individuals with educational opportunities which will enable them to make significant contributions to the improvement of health care, the science of nursing, and the advancement of nursing practice. The purpose of this program, leading to the degrees Master of Science in Nursing or Doctor of Philosophy, is to provide nurses with opportunities to become prepared for advanced clinical practice, for roles as educators or administrators, or as clinical nurse scientists.

Administration

The Graduate Program in Nursing is administered through the Graduate School of Biomedical Sciences of UTHSCSA. While faculty of the School of Nursing determine the curriculum, the graduate nursing program shares common policies related to students’ admission, progression, and graduation with other academic programs in the Graduate School which are within the administrative responsibility of the Dean of the Graduate School and the Graduate Faculty Council.

The Committee on Graduate Studies (COGS) of the nursing program has responsibility to the Graduate School of Biomedical Sciences in administrative policy matters and to the School of Nursing relative to curriculum. The committee is responsible for recommending the admission of students to the nursing program, determining the curriculum, attesting to the eligibility of students for admission to candidacy for a degree, and certifying to the Graduate Faculty Council that students have fulfilled the requirements for the awarding of the degree. The Graduate Faculty Council establishes and maintains academic policy and makes recommendations to the President for the awarding of all master’s and doctoral degrees.

Consistent with the philosophy of the School of Nursing, graduate nursing education at The University of Texas Health Science Center at San Antonio is designed to offer professional nurses the opportunity to prepare themselves to assume leadership roles in patient care activities, teach in schools of nursing, manage patient care services within institutions or health care agencies, and conduct independent research. Preparation for the master’s degree is available through two options: the registered nurse with a baccalaureate in nursing will proceed with the master’s program. The registered nurse with an associate degree in nursing or a diploma in nursing may qualify for admission to a special early master’s option, the ADN/Diploma—MSN. The doctoral degree is a post-baccalaureate degree program.

In order to provide nurses with the opportunity to develop the high level of competence and expertise necessary for leadership positions, the graduate nursing curriculum includes content in the theory and practice of nursing, development of skills in the research process, consideration of nursing’s present and future role in the health care system, and analysis of the social and ethical problems associated with professional issues. Through the curriculum, nursing educators, administrators, researchers, and consultants are being provided with the opportunity to practice their unique skills in a variety of settings.

Admission and Application

Requirements for admission to the graduate program are detailed in the Applicant Viewbook of the School of Nursing (available in print and on the Web at http://studentservices.uthscsa.edu/publications/nursing.html). Official application forms and deadlines for submission also are included in the Viewbook.

Master of Science in Nursing

Objectives

The objectives of the master’s program are designed to offer the student the opportunity to:

1. Design and evaluate theory-based programs of care that will promote, protect, and restore health in partnership with patients.
2. Mobilize partnerships with patients* to facilitate theory-based programs of care.
3. Employ expert therapeutic communication when enacting the advanced professional nursing role.
4. Evaluate advanced practice decisions using critical thinking.
5. Critique, utilize, and/or generate nursing knowledge to improve patient* care through scholarship.
6. Demonstrate leadership in collaborative partnerships with communities to deliver quality care across levels of prevention.
7. Model ethical and legal conduct that reflects standards of advanced professional practice.
8. Maintain behaviors that demonstrate the value of integrated learning.

Degree Requirements

For the Master of Science in Nursing degree, a minimum of 36 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 36 semester credit hours, in order to graduate.

The program of study includes: 1) required courses, 2) major, 3) thesis or elective credit, and 4) minor (elective). 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,

* patients (Individuals, Families, Aggregated, Communities, Society)
no more than one C in a clinical major course, and no incomplete grades.

Students must be recommended by the Nursing Program Committee on Graduate Studies and approved by the Graduate Faculty Council of the Graduate School of Biomedical Sciences for admission to candidacy for the MSN degree and for graduation.

The program is designed to be completed in 18–24 months of full-time study for students entering in the fall semester; 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 three regular semesters. A clinical preceptorship also may be required.

**Admission to Candidacy**
A student who has satisfactorily completed a minimum of 20 semester credit hours of coursework applicable to the degree may be admitted to candidacy for the Master of Science in Nursing degree upon such recommendation of the Committee on Graduate Studies to the Dean of the Graduate School of Biomedical Sciences. A student must be admitted to candidacy no later than the beginning of the semester in which he or she expects to graduate.

**Curriculum**

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.

**Course Numbers**
NURS designates all required, major, minor, or special nursing courses. NURE designates nursing electives. A four-digit course identification number follows: the first digit indicates the earliest level at which a course may be taken or at which a course is usually taken (5, 6, and 7 indicate graduate level); the second digit indicates the semester credit hours given for the course.

**MSN Semester Credit Hour Requirements**
Of the minimum 36 semester credit hours of upper-division and graduate courses required for the MSN, 24 hours of coursework must be taken in residence. (Elective courses may be taken outside the School of Nursing.) The program is completed through full-time study; although part-time enrollment is an option in some majors. Nurse Practitioner majors require 47 semester credit hours.

**Graduate Required Courses**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>NURS 5306</td>
<td>3.0</td>
</tr>
<tr>
<td>NURS 5307</td>
<td>3.0</td>
</tr>
<tr>
<td>NURS 5226</td>
<td>2.0</td>
</tr>
<tr>
<td>NURS 5339</td>
<td>3.0</td>
</tr>
</tbody>
</table>

**TOTAL 11.0**

**Major**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute Care Nurse Practitioner</td>
<td>36.0</td>
</tr>
<tr>
<td>Administration in Community and Healthcare</td>
<td>20.0</td>
</tr>
<tr>
<td>Systems in Nursing</td>
<td></td>
</tr>
<tr>
<td>Adult Psychiatric Mental Health Nurse Practitioner</td>
<td>34.0</td>
</tr>
<tr>
<td>Critical Care Nursing (Clinical Nurse Specialist)</td>
<td>33.0</td>
</tr>
<tr>
<td>Family Nurse Practitioner</td>
<td>36.0</td>
</tr>
<tr>
<td>Family Psychiatric Mental Health Nurse Practitioner</td>
<td>36.0</td>
</tr>
<tr>
<td>Gerontological Nurse Practitioner</td>
<td>36.0</td>
</tr>
<tr>
<td>Medical-Surgical Nursing (Clinical Nurse Specialist)</td>
<td>32.0</td>
</tr>
<tr>
<td>Pediatric Nurse Practitioner</td>
<td>36.0</td>
</tr>
<tr>
<td>Thesis or Elective Courses</td>
<td>2.0–6.0</td>
</tr>
</tbody>
</table>

**Associate Degree in Nursing/ Diploma in Nursing — Master of Science in Nursing Option**
The ADN/Diploma — MSN, or early master's option, requires completion of 20 semester credit hours of undergraduate nursing courses at the School of Nursing with a grade point average of 3.0 or higher. Of the minimum 36 semester credit hours of upper-division and graduate courses required for the MSN, 24 credit hours of coursework must be taken in residence. (Elective courses may be taken outside the School of Nursing.)

The program may be completed in five semesters of full-time study. Part-time enrollment is an option.

**Undergraduate Required Courses**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit Hours</th>
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</thead>
<tbody>
<tr>
<td>NURS 4212</td>
<td>2.0</td>
</tr>
<tr>
<td>NURS 4512</td>
<td>5.0</td>
</tr>
<tr>
<td>NURS 4214</td>
<td>2.0</td>
</tr>
<tr>
<td>NURS 4312</td>
<td>3.0</td>
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<tr>
<td>NURS 4310</td>
<td>3.0</td>
</tr>
<tr>
<td>NURS 4514</td>
<td>5.0</td>
</tr>
</tbody>
</table>

(Courses are described in the “Flexible Process” section of the undergraduate portion of this Catalog.)

* Students admitted to the ADN/Diploma to Masters Degree option who have completed NURS 4514 Strategies for Professional Nursing: Community as Partner, and who have attained a minimum 3.0 grade point average in all courses taken at the undergraduate level, are immediately eligible to enroll in graduate courses. These students may enroll in any of the four (4) graduate core courses, and/or a total of six (6) hours of electives. These students may petition for admission to the graduate program in the next semester (fall, spring, or summer). Credit for all courses taken at the graduate level may be applied toward the graduate degree after the student has been admitted to and is enrolled in the graduate program.
In accordance with the philosophy of the School of Nursing, the term "patient(s)" indicates individuals, families, and aggregates.

**Course Descriptions**

### Required Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>NURS 5306</td>
<td>Nursing Science I: Foundations of Theory</td>
<td>3.0</td>
</tr>
<tr>
<td>NURS 5307</td>
<td>Nursing Science II: Foundations of Nursing Research</td>
<td>3.0</td>
</tr>
<tr>
<td>NURS 5226</td>
<td>The Nurse's Role in Financial Planning in Healthcare Organizations</td>
<td>2.0</td>
</tr>
<tr>
<td>NURS 5339</td>
<td>Nursing Leadership and Health Policy</td>
<td>3.0</td>
</tr>
</tbody>
</table>

**Total Credit Hours: 11.0**

- **Administration in Community and Healthcare**: 20.0
- **Systems in Nursing**: 36.0
- **Adult Psychiatric Mental Health Nurse Practitioner**: 34.0
- **Critical Care Nursing (Clinical Nurse Specialist)**: 33.0
- **Family Nurse Practitioner**: 36.0
- **Family Psychiatric Mental Health Nurse Practitioner**: 36.0
- **Gerontological Nurse Practitioner**: 36.0
- **Medical-Surgical Nursing (Clinical Nurse Specialist)**: 32.0
- **Pediatric Nurse Practitioner**: 36.0
- **Thesis or Elective Courses**: 2.0–6.0

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**Acute Care Nurse Practitioner (ACNP)**

The role of the Acute Care Nurse Practitioner (ACNP) 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. This care is continuous and comprehensive. The population in acute care practice includes acutely and critically ill patients experiencing episodic illness, exacerbation of chronic illness, or terminal illness. The ACNP practices in any setting in which patient care requirements include complex monitoring and therapies, high-intensity nursing intervention, or continuous nursing vigilance with the range of high-acuity care. While most ACNP's practice in acute care and hospital based settings including sub-acute care, emergency care, and intensive care settings, the continuum of acute care services spans the geographic settings of home, ambulatory care, urgent care, and rehabilitative care.

In addition to managing patient care, the ACNP utilizes invasive interventions and procedures to promote physiologic stability. ACNPs perform a wide variety of skills and procedures, and the skill set of an ACNP is often dependent on the specific patient population and specialty-based area of practice.

Restorative care is the focus of the ACNP, and short-term goals include patient stabilization, minimization of complications, and promotion of physical and psychological well-being. The long-term goal is to restore maximal health potential while evaluating risk factors in achieving this outcome.

It is highly recommended that applicants have two years of acute care/critical care experience.
**Acute Care Nurse Practitioner (ACNP)**

**Program Courses**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
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<tbody>
<tr>
<td>NURS 5338</td>
<td>Pathophysiology for Advanced Practice Nurses</td>
<td>3.0</td>
</tr>
<tr>
<td>NURS 6302</td>
<td>Pharmacotherapeutics for Advanced Practice Nurses</td>
<td>3.0</td>
</tr>
<tr>
<td>NURS 6307</td>
<td>Health Assessment Across the Lifespan for Advanced Practice Nurses</td>
<td>3.0</td>
</tr>
<tr>
<td>NURS 6308</td>
<td>Mental Health Concepts for Advanced Practice Nurses</td>
<td>3.0</td>
</tr>
<tr>
<td>NURS 5311</td>
<td>Nursing Assessment of Populations</td>
<td>3.0</td>
</tr>
<tr>
<td>NURS 5650</td>
<td>Acute Care Nurse Practitioner Diagnosis &amp; Management: Concepts &amp; Theory I</td>
<td>6.0</td>
</tr>
<tr>
<td>NURS 5651</td>
<td>Acute Care Nurse Practitioner Diagnosis &amp; Management: Concepts &amp; Theory II</td>
<td>6.0</td>
</tr>
<tr>
<td>NURS 5936</td>
<td>Acute Care Nurse Practitioner: Role &amp; Preceptorship</td>
<td>9.0</td>
</tr>
</tbody>
</table>

**Prerequisites:**
- NURS 6307, NURS 6302, NURS 6308, NURS 5338

**Semester Hour Allocation:**
- 3 semester hours

**Total Semester Hours:** 36.0

Above courses +11 semester hours required courses for a total of 47 semester hours. In the post-MSN option, each applicant is evaluated individually to determine the need for additional coursework.

Graduates are eligible for national certification and recognition by the Board of Nurse Examiners for the State of Texas as an Advanced Practice Nurse.

**Major Course Descriptions**

**NURS 5338 Pathophysiology for Advanced Practice Nurses**

**3 Semester Credit Hours**

**Prerequisites:** Graduate standing

This course focuses on pathophysiological processes across the lifespan. The relationship between normal physiology and specific system alterations produced by disease will be explored. Particular attention will be given to etiology, pathogenesis, developmental and environmental influences, and clinical manifestations of major health problems that affect South Texas. Portions of this course will be delivered by distance technology. Independent completion of modules is required in this course.

**NURS 6302 Pharmacotherapeutics for Advanced Practice Nurses**

**3 Semester Credit Hours**

**Prerequisites:** NURS 5338 or concurrent

This course provides advanced nurse practice nurses the opportunity to acquire knowledge and skills in the therapeutic use of pharmacologic agents to protect, promote, and restore optimal health. Principles of pharmacokinetics and pharmacodynamics will be examined. The history of disease, pathophysiology, symptomatology and pharmacologic treatment of major health problems and health transitions will be explored. Potential adverse reactions of various cultural groups to prescribed agents will be emphasized, including adherence, cost of drug, cultural values and beliefs, and individual responses to therapy. Partnership with patients in comprehensive education, monitoring and adherence is stressed. The state and federal legal regulations for advanced practice nursing prescriptive authority will be addressed.

**NURS 6307 Health Assessment Across the Lifespan for Advanced Practice Nurses**

**2 semester hours class - 2 clock hours class**

**1 semester hour practicum – 3 clock hours practicum (45 clock hours practicum)**

**Prerequisites:** Undergraduate health assessment course/comparable experience; NURS 5338

This course will build upon health assessment skills developed in the professional nurse’s basic educational program. Included is the theoretical and clinical basis for assessment in advanced practice. 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 which focus on assessment of clients and presentation of findings in a variety of settings.

**NURS 5311 Nursing Assessment of Populations**

**Credit Hour Allocation: 3 semester hours**

**Prerequisites:** Graduate standing

This course explores the acquisition of knowledge about a community of interest and its health problems. Communities of interest may include populations within organizations, neighborhoods or communities. Sources of both qualitative and quantitative information about selected populations and their health problems will be addressed. Students will gain experience in the identification of population characteristics, problem measurement and the identification of “communities of solution.” For their clinical activities, students may choose population aggregates in a variety of settings compatible with their area of interest.

**NURS 5650 Acute Care Nurse Practitioner (ACNP) Diagnosis & Management: Concepts & Theory I**

**6.0 Semester Credit Hours**

**Prerequisites:** NURS 6307, NURS 6302, NURS 6308, NURS 5338, NURS 5311 (may be taken concurrently)

The focus of this course is the transition of the RN to the role of the Acute Care Nurse Practitioner in health promotion, diagnosis, and management of common illnesses in adult patients with complex acute, critical and chronic health conditions, including the delivery of acute care services. Research and theory (scholarship) are used to identify strategies integral to advanced nursing practice for the
promotion of health and prevention of illness. Using problem-based and integrated learning strategies, disorders of approximately one half of the physiologic systems are examined, critical thinking processes required for development of differential diagnoses are utilized, and invasive interventions and procedures and therapeutic regimens for common diseases/disorders in patients with acute and critical health problems are identified. This course emphasizes collaborative partnerships among patient,* family, and other health care disciplines.

NURS 5651  Acute Care Nurse Practitioner (ACNP) Diagnosis & Management: Concepts & Theory II
6.0 Semester Credit Hours
3 clock hours class, 9 clock hours clinical (135 hours clinical practicum)
Prerequisites: NURS 6307, NURS 6302, NURS 6308, NURS 5338, NURS 5311, NURS 5650
The focus of this course is the progression of development of the Acute Care Nurse Practitioner in health promotion, diagnosis and management of common illnesses in adult patients with complex acute, critical and chronic health conditions, including the delivery of acute care services. Research and theory are used to identify strategies integral to advanced nursing practice for the promotion of health and prevention of illness. Using problem-based and integrated learning strategies, disorders of approximately one half of the physiologic systems are examined, critical thinking processes required for development of differential diagnoses are utilized, and invasive interventions and procedures and therapeutic regimens for common diseases/disorders in patients with acute and critical health problems are identified. This course emphasizes collaborative partnerships among patient,* family, and other health care disciplines.

NURS 5936  Acute Care Nurse Practitioner (ACNP): Role & Preceptorship
9.0 Semester Credit Hours
Prerequisites: All courses for the major
This course focuses on health maintenance for patients, professionalism and ethical roles and responsibilities of the Acute Care Nurse Practitioner in the health care setting; transition to an advanced practice role (marketing, negotiations, contracts); understanding the political arena of legal and social issues governing advanced practice in primary health care (including prescriptive authority); and maintaining professional partnerships with other advanced practice nurses, as well as health care professionals in other disciplines. It requires the student to demonstrate integration, synthesis and application of assessment, diagnosis, and management of patients* with complex acute, critical and chronic health conditions. Practice and mastery of these skills will occur in preceptor clinical settings specific to the population focus and will reflect progressive competency of the Acute Care Nurse Practitioner student in health promotion, diagnosis and management of patient* and family care for a culturally diverse population.

Administration in Community and Health Care Systems in Nursing

NURS 5310  Administrative Strategies and Nursing Systems
3.0 Semester Credit Hours
Prerequisites: NURS 526 or concurrently, NURS 5339 or concurrently
This course examines contemporary influences, theories, principles, and functional strategies related to organizational and management science. Included are the influence of the external and internal environment on complex systems, role relationships, planning, structure, communication, negotiation, and consultation as they apply to health care management concerns.
Clock hours: three class hours per week.

NURS 5311  Nursing Assessment of Populations
3.0 Semester Credit Hours
Prerequisite: Graduate standing
This course explores the acquisition of knowledge about a community of interest and its health problems. Communities of interest may include populations within organizations, neighborhoods, or communities. Sources of both qualitative and quantitative information about selected populations and their health problems will be used to develop health statements about communities. Students are given an opportunity to gain experience in the identification of population characteristics, problem health measurement, and the identification of "communities of solution." For their clinical activities, students may choose population aggregates in a variety of settings compatible with their area of interest.
Clock hours: two hours and three practicum hours per week.

NURS 5409  Program Planning and Evaluation
2.0 Semester Credit Hours
Prerequisites: NURS 5311
This course and practicum provide an opportunity to explore problems that affect client population aggregates in a variety of health care settings. The emphasis of this course is program planning and evaluation. Using analytical and problem solving skills, processes, strategies, and evidenced based practice, students will be given the opportunity to develop theory-based interventions and evaluation strategies.

NURS 5501  Financial Management and Decision Support Systems for Nursing Administrative Practice
5.0 Semester Credit Hours
Prerequisite: NURS 5226
This course considers advanced financial management concepts (financial statements, capital budgeting, forecasting, rate setting, costing out of nursing services) and is an introduction to the concepts of decision-support systems in the administration of community and health care services.
Clock hours: three class hours and six practicum hours per week.

NURS 5561  Advanced Nursing Practicum in Policy and Management
5.0 Semester Credit Hours
Prerequisites: NURS 5306, NURS 5307, NURS 5409, NURS 5501
The purpose of this course is to provide the student with the opportunity to examine the role of the nurse executive in a health care agency. Emphasis is placed on the development of interdisciplinary relationships, long-range planning skills, organizational priority setting, fiscal management, marketing, policy setting, care systems and support systems for patient care delivery. The student will be assigned

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to an institutional or community-based health care setting under the preceptorship of an experienced nurse executive for the practicum portion of the course.

Clock hours: one seminar and twelve practicum hours per week.

**Adult Psychiatric Mental Health Nurse Practitioner (APMHNCP)**

This major pulls together the content from core courses in physiology, pathophysiology, pharmacotherapeutics, and health assessment as a foundation for advanced practice. The roles of the nurse in advanced practice are experienced through patient care management in outpatient and inpatient facilities and private practice settings.

**NURS 5605 Adult Psychiatric Mental Health Nurse Practitioner (APMHNCP) Diagnosis and Management: Concepts and Theory I**

6.0 Semester Credit Hours

Prerequisites: NURS 5306, NURS 5226, NURS 6307, NURS 6302, NURS 6308, NURS 5338, NURS 5339, NURS 5311 (may be taken concurrently), NURS 5307 (may be taken concurrently)

The focus of this course is the transition of the RN to the role of the Adult Psychiatric Mental Health Nurse Practitioner in health promotion, diagnosis and management of common mental illnesses in psychiatric practice of the adult attending to differences in focused populations. Research and theory are used to identify strategies integral to advanced nursing practice for the promotion of health and prevention of illness. Using problem-based and integrated learning strategies, disorders of approximately one half of the physiologic systems and their impact on mental health are examined, critical thinking processes required for development of differential diagnosis are utilized, and therapeutic regimens for common diseases/disorders identified. Emphasizes collaborative partnerships among patients*, family, and other health care disciplines. 90 hours of clinical practicum.

**NURS 5606 Adult Psychiatric Mental Health Nurse Practitioner (APMHNCP) Diagnosis and Management: Concepts and Theory II**

6.0 Semester Credit Hours

Prerequisites: NURS 5605

The focus of this course is the progression of development of the Adult Psychiatric Mental Health Nurse Practitioner in health promotion, diagnosis and management of common illnesses in psychiatric practice with adults attending to differences in focused populations. Research and theory used to identify strategies that are integral to advanced nursing practice for promotion of health and prevention of illness. Using problem-based and integrated learning strategies, disorders of approximately one half of the physiologic systems and the relationship to mental health are examined, critical thinking processes required for development of differential diagnosis are utilized, and therapeutic regimens for common diseases/disorders identified. Emphasizes collaborative partnerships among patient*, family, and other health care disciplines. 135 hours of clinical practicum.

**NURS 5701 Adult Psychiatric Mental Health Nurse Practitioner (APMHNCP): Role and Preceptorship**

7.0 Semester Credit Hours

Prerequisites: NURS 5606

This course focuses on health maintenance for adult patients*. It requires the student to demonstrate integration, synthesis and application of assessment, diagnosis, and management of patients* with acute and/or stable chronic mental health conditions. Practice and mastery of these skills will occur in preceptored clinical settings specific to psychiatric mental health care and will reflect progressive competency of the Nurse Practitioner student in health promotion, diagnosis and management of patient* and family care for a culturally diverse population. The student will use problem-based integrated learning strategies and scholarship to identify and implement strategies to promote health, prevent illness, develop and implement treatment plans, and evaluate outcomes of common and complex disorders. Critical thinking processes required for development of differential diagnosis and evaluation are evaluated, and progressive independence of practice is expected. This course emphasizes collaborative partnerships with patients*, family, and other health care disciplines. 180 hours of clinical practicum.

**Critical Care Nursing (Clinical Nurse Specialist)**

This major pulls together the content from core courses in physiology, pathophysiology, pharmacotherapeutics, and health assessment as a foundation for advanced practice. The roles of the clinical nurse specialist in advanced practice are experienced through patient care management in inpatient facilities.

**NURS 5601 Critical Care Nursing (Clinical Nurse Specialist) I: Health Management**

6.0 Semester Credit Hours

Prerequisites: NURS 6307, NURS 5338, NURS 5306, NURS 6308 (or concurrent); NURS 6302 (or concurrent)

This course addresses the unique and autonomous roles of the Critical Care Nursing – Clinical Nurse Specialist – as an Advanced Practice Nurse. The content focuses on human responses to health and illness, and identifying and modifying etiologies that interfere with health. Concepts covered include health promotion, disease prevention, risk reduction, and management of symptoms and functional problems. Theories and current evidence-based interventions are explored for application to special populations. Developing a customized patient-based framework for Clinical Nurse Specialist practice in the contemporary health care system is emphasized.

**NURS 5140 Critical Care Nursing – Clinical Nurse Specialist: Skills Competencies**

1.0 Semester Credit Hour

Prerequisite: NURS 6307

This course focuses on the skills and procedures that critical nurses use in the monitoring and management of critically ill patients. The content is designed to build on the student’s previous critical care experience and to enhance knowledge of new and current technology for optimal patient care. Skills and procedures are reviewed and students have the opportunity to demonstrate competency with these skills in a critical care setting or through laboratory simulated activities.

**NURS 5602 Critical Care Nursing (Clinical Nurse Specialist) II: Diagnosis and Management**

6.0 Semester Credit Hours

Prerequisites: NURS 5226, NURS 5339, NURS 5307 (or concurrent), NURS 5311 (or concurrent), NURS 5601, NURS 5140

This course builds on Critical Care Nursing – Clinical Nurse Specialist I – and is designed to transition the graduate nursing student into the Critical Care Specialist role as a practitioner and provider of care. The focus of this critical care specialty is adults with life-threatening, critical illness or injury who require advanced technology and

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monitoring. Students have the opportunity to develop, apply and evaluate in-depth knowledge of pathophysiological processes and evidenced-based interventions for disease management. The focus of the theoretical and clinical of the course is on nursing and medical diagnosis and management, pharmacological and nonpharmacological treatments, and an interdisciplinary approach to critically ill patients. Clinical experiences include the implementation and evaluation of Clinical Nurse Specialist roles in tertiary and other settings that comprise the continuum of care for critically ill patients.

NURS 5502 Critical Care Nursing (Clinical Nurse Specialist) III: Role and Preceptorship
5.0 Semester Credit Hours
Prerequisites: Completion of all major coursework
This course can be a synthesizing experience in the development and implementation of the Clinical Nurse Specialist role in a collaborative, interdisciplinary model. The focus of this course is ongoing clinical experiences and practice that integrate the theoretical and practical knowledge for the health and disease management of critically ill adult patients. Emphasis is on clinical decision making, which incorporates nursing and medical diagnosis, disease management and treatment to include prescriptive practices.

Family Nurse Practitioner (FNP)
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.

NURS 6308 Mental Health Concepts for Advanced Practice Nurses
3.0 Semester Credit Hours
Prerequisite: Graduate standing
This course emphasizes the development of advanced practice nursing skills in mental health. Individually supervised practice, analysis, and evaluation of the interpersonal process with culturally diverse clients experiencing life transitions that result in psychological stress and dysfunction across the lifespan is employed. Students use a holistic perspective to examine the etiology, meaning, and consequences of human behavior. Biological, cultural, psychological, and social aspects of mental health and mental health care are considered. A special emphasis is placed on working in partnership with patients* to assess and detect actual and potential mental health problems. The advanced practice nurse will provide customized care through developmental assessment, crisis intervention, pharmacological management, other biological therapies and/or consultation/referral to other mental health professionals. A 45 clock hour practicum is required. Clock hours: two seminar hours and three practicum hours per week.

NURS 5311 Nursing Assessment of Populations
3.0 Semester Credit Hours
(See Administration in Community and Health Care Systems in Nursing.)

NURS 5338 Pathophysiology for Advanced Practice Nurses
3.0 Semester Credit Hours
Prerequisite: Master’s-level knowledge of physiology is expected
This course focuses on pathophysiological processes across the lifespan. The relationship between normal physiology and specific system alterations produced by disease will be explored. Particular attention will be given to etiology, pathogenesis, developmental and environmental influences, and clinical manifestations of major health problems that affect South Texas.

NURS 6302 Pharmacotherapeutics for Advanced Practice Nurses
3.0 Semester Credit Hours
Prerequisite: NURS 5338
This course provides advanced practice nurses the opportunity to acquire knowledge and skills in the therapeutic use of pharmacologic agents to protect, promote, and restore optimal health. Principles of pharmacokinetics and pharmacodynamics will be examined. The history of disease, pathophysiology, symptomatology, and pharmacologic treatment of major health problems and health transitions will be explored. Potential adverse reactions of various cultural groups to prescribed agents will be emphasized, including adherence, cost of drug, cultural values and beliefs, and individual responses to therapy. Partnership with patients in comprehensive education, monitoring, and adherence is stressed. The state and federal legal regulations for advanced practice nursing prescriptive authority will be addressed.
Clock hours: three class hours per week.

NURS 6307 Health Assessment Across the Lifespan for Advanced Practice Nurses
3.0 Semester Credit Hours
Prerequisite: undergraduate health assessment course/comparable experience; NURS 5338 (or concurrent)
This course builds on health assessment skills developed in the nurse’s basic educational plan. The theoretical and clinical basis for assessment in advanced nursing 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, which focus on assessment of clients and presentation of findings in a variety of settings.
Clock hours: two seminar hours and three practicum hours per week.

NURS 6603 Family Nurse Practitioner Diagnosis and & Management: Concepts & Theory I
6.0 Semester Credit Hours
Prerequisites: NURS 5306, NURS 5226, NURS 5339, NURS 6307, NURS 6302, NURS 6308, NURS 5338, NURS 5311 (may be taken concurrently); NURS 5307 (may be taken concurrently)
The focus of this course is the transition of the RN to the role of the Family Nurse Practitioner in health promotion, diagnosis and management of common illnesses in primary health care practice across the lifespan attending to differences in focused populations. Research and theory are used to identify strategies integral to advanced nursing practice for the promotion of health and prevention of illness. Using problem-based and integrated learning strategies, disorder of approximately one half of the physiologic systems are examined, critical thinking processes required for development of differential diagnosis are utilized, and therapeutic regimens for common diseases/illnesses identified. Emphasizes collaborative partnerships among patients*, families, and other health care disciplines. 90 hours of clinical practicums.

NURS 6604 Family Nurse Practitioner Diagnosis & Management: Concepts & Theory II
6.0 Semester Credit Hours
Prerequisite: NURS 6603
The focus of this course is the progression of development of the Nurse Practitioner in health promotion, diagnosis and management of common illnesses in primary health care practice across the lifespan, attending to differences in focused populations and specialty

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tracks. Research and theory used to identify strategies that are integral to advanced nursing practice for promotion of health and prevention of illness. Using problem-based and integrated learning strategies, disorders of approximately one-half of the physiologic systems are examined, critical thinking processes required for development of differential diagnosis are utilized, and therapeutic regimens for common diseases/disorders identified. Emphasizes collaborative partnerships among patient*, family, and other health care disciplines. 135 hours of clinical practicum.

NURS 6906  Family Nurse Practitioner (FNP): Role and Preceptorship
9.0 Semester Credit Hours
Prerequisites: All courses for the major
This course focuses on health maintenance for patients, professionalism and ethical roles and responsibilities of Family Nurse Practitioners in the health care setting; transition to an advanced practice role (marketing, negotiations, contracts); understanding the political arena of legal and social issues governing advanced practice in primary health care (including prescriptive authority); and maintaining professional partnerships within professional advanced practice nursing and health care professionals in other disciplines. 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. Practice and mastery of these skills will occur in preceptored clinical settings specific to the population focus and will reflect progressive competency of the Nurse Practitioner student in health promotion, diagnosis and management of patient* and family care for a culturally diverse population. The student will use problem-based integrated learning strategies and scholarship to identify and implement strategies to promote health, prevent illness, develop and implement treatment plans, and evaluate outcomes of common and complex disorders. Critical thinking processes required for development of differential diagnosis and evaluation are required, and progressive independence of practice is expected. This course emphasizes collaborative partnerships with patient*, family, and other health care disciplines. 360 hours of clinical practicums.

Family Psychiatric Mental Health Nurse Practitioner (FPMHNP)
This major pulls together the content from core courses in physiology, pathophysiology, pharmacotherapeutics, and health assessment as a foundation for advanced practice. The roles of the nurse in advanced practice are experienced through patient care management in outpatient and inpatient facilities and private practice settings.

NURS 5603  Family Psychiatric Mental Health Nurse Practitioner (FPMHNP): Role and Preceptorship
9.0 Semester Credit Hours
Prerequisites: NURS 5306, NURS 5226, NURS 6307, NURS 6302, NURS 6308, NURS 5338, NURS 5311 (may be taken concurrently), NURS 5307 (may be taken concurrently)
The focus of this course is the transition of the RN to the role of the Family Psychiatric Mental Health Nurse Practitioner in health promotion, diagnosis and management of common mental illnesses in psychiatric practice across the life span attending to differences in focused populations. Research and theory are used to identify strategies integral to advanced nursing practice for the promotion and prevention of illness. Using problem-based and integrated learning strategies, disorders of approximately one-half of the physiologic systems and their impact on mental health are examined, critical thinking processes required for development of differential diagnosis are utilized, and therapeutic regimens for common diseases/disorders identified. Emphasizes collaborative partnerships among patient*, family, and other health care disciplines. 90 hours of clinical practicums.

NURS 5604  Family Psychiatric Mental Health Nurse Practitioner (FPMHNP) Diagnosis and Management: Concept and Theory II
6.0 Semester Credit Hours
Prerequisites: NURS 5306, NURS 5226, NURS 6307, NURS 6302, NURS 6308, NURS 5338, NURS 5311 (may be taken concurrently); NURS 5307 (may be taken concurrently), NURS 5603
The focus of this course is the progression of development of the Family Psychiatric Mental Health Nurse Practitioner in health promotion, diagnosis and management of common illnesses in psychiatric practice across the life span attending to differences in focused populations. Research and theory used to identify strategies that are integral to advanced nursing practice for promotion of health and prevention of illness. Using problem-based and integrated learning strategies, disorders of approximately one-half of the physiologic systems and the relationship to mental health are examined, critical thinking processes required for development of differential diagnosis are utilized, and therapeutic regimens for common diseases/disorders identified. Emphasizes collaborative partnerships among patient*, family, and other health care disciplines. 135 hours of clinical practicums.

NURS 5934  Family Psychiatric Mental Health Nurse Practitioner (FPMHNP): Role and Preceptorship
9.0 Semester Credit Hours
Prerequisites: All coursework for the major
This course focuses on health maintenance for patients*. It requires the student to demonstrate integration, synthesis and application of assessment, diagnosis, and management of patients* with acute and/or stable chronic mental health conditions. Practice and mastery of these skills will occur in preceptored clinical settings specific to psychiatric mental health care and will reflect progressive competency of the Nurse Practitioner student in health promotion, diagnosis and management of patient* and family care for a culturally diverse population. The student will use problem-based integrated learning strategies and scholarship to identify and implement strategies to promote health, prevent illness, develop and implement treatment plans, and evaluate outcomes of common and complex disorders. Critical thinking processes required for development of differential diagnosis and evaluation are required, and progressive independence of practice is expected. This course emphasizes collaborative partnerships with patient*, family, and other health care disciplines. 270 hours of clinical practicums.

Gerontological Nurse Practitioner (GNP)

NURS 6610  Gerontological Nurse Practitioner (GNP) Diagnosis and Management: Concepts and Theory I
6.0 Semester Credit Hours
Prerequisites: NURS 5306, NURS 5226, NURS 5339, NURS 6307, NURS 6302, NURS 6308, NURS 5338, NURS 5311. Student must be willing to travel to clinical sites.
The focus of this course is the transition of the RN to the role of the Gerontological Nurse Practitioner in health promotion, diagnosis and management of common illnesses in primary health care practice.

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NURS 6611 Gerontological Nurse Practitioner (GNP): Diagnosis and Management: Concepts and Theory II

6.0 Semester Credit Hours
Prerequisites: NURS 5306, NURS 5226, NURS 6307, NURS 5339, NURS 6302, NURS 6308, NURS 5338, NURS 5311, NURS 6610

This course is the progression of development of the Gerontological Nurse Practitioner in health promotion, diagnosis and management of common illnesses in primary health care practice across the life span, attending to differences in focused populations. Research and theory (scholarship) are used to identify strategies that are integral to advanced nursing practice for promotion of health and prevention of illness. Using problem-based and integrated learning strategies, disorders of approximately one half of the physiologic systems are examined, critical thinking processes required for development of differential diagnosis are utilized, and therapeutic regimens for common diseases/disorders identified. This course emphasizes collaborative partnerships among patients*, families, and other health care disciplines. 90 hours of clinical practicums.

NURS 6890 Gerontological Nurse Practitioner (GNP): Role and Preceptorship

9.0 Semester Credit Hours
Prerequisites: Completion of all coursework for major

This course focuses on health maintenance for patients, professionalism and ethical roles and responsibilities of Gerontological Nurse Practitioners in the health care setting; transition to an advanced practice role; understanding the political arena of legal and social issues governing advanced practice in primary health care (including prescriptive authority); and maintaining professional partnerships within professional advanced practice nursing and health care professionals in other disciplines. 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. Practice and mastery of these skills will occur in preceptored clinical settings specific to the population focus of specialty track (GNP) and will reflect progressive competency of the Nurse Practitioner student in health promotion, diagnosis and management of patient* and family care for a culturally diverse population. The student will use problem-based integrated learning strategies and scholarship to identify and implement strategies to promote health, prevent illness, develop and implement treatment plans, and evaluate outcomes of common and complex disorders. Critical thinking processes required for development of differential diagnosis and evaluation is required, and progressive independence of practice is expected. This course emphasizes collaborative partnerships with patient*, family, and other health care disciplines. 360 hours of clinical practicums.

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Medical-Surgical Nursing (Clinical Nurse Specialist)

This major pulls together the content from core courses in physiology, pathophysiology, pharmacotherapeutics, and health assessment as a foundation for advanced practice. The roles of the nurse in advanced practice are experienced through patient care management in outpatient and inpatient facilities and private practice settings.

NURS 5640 Medical-Surgical Nursing (Clinical Nurse Specialist) I: Health Management

6.0 Semester Credit Hours
Prerequisites: NURS 6307, NURS 5338, NURS 5306, NURS 6308 (or concurrent), NURS 6302 (or concurrent)

This course addresses the unique and autonomous roles of the Medical-Surgical Nursing – Clinical Nurse Specialist – as an Advanced Practice Nurse. The content focuses on human responses to health and illness, and identifying and modifying etiologies that interfere with health. Concepts covered include health promotion, disease prevention, risk reduction, and management of symptoms and functional problems. Theories and current evidence-based interventions are explored for application to special populations. Developing a customized patient-based framework for Medical-Surgical – Clinical Nurse Specialist practice in the contemporary health care system is emphasized. 112.5 clinical hours.

NURS 5641 Medical-Surgical Nursing (Clinical Nurse Specialist) II: Diagnosis and Management

6.0 Semester Credit Hours
Prerequisites: NURS 5307 (or concurrent), NURS 5311 (or concurrent), NURS 5640

This course builds on Medical-Surgical Nursing – Clinical Nurse Specialist I – and is designed to transition the graduate nursing student into the Clinical Nurse Specialist role as a practitioner and provider of care. The medical-surgical specialty focus is adults with acute and chronic illness across the continuum of care. Students have the opportunity to develop, apply and evaluate in-depth knowledge of pathophysiological processes and evidence-based interventions for disease management. The focus of the theoretical and clinical components of the course is on nursing and medical diagnosis and management, pharmacological and nonpharmacological treatments, and an interdisciplinary approach to patients experiencing acute and chronic diseases. Clinical experiences include the implementation and evaluation of Medical-Surgical Nursing—Clinical Nurse Specialist roles in primary, secondary, and/or tertiary settings. 135 clinical hours.

NURS 5532 Medical-Surgical Nursing (Clinical Nurse Specialist) III: Role and Preceptorship

5.0 Semester Credit Hours
Prerequisites: Completion of all major coursework

This course can be a synthesizing experience in the development and implementation of the Medical-Surgical Nursing – Clinical Nurse Specialist role in a collaborative, interdisciplinary model. The focus of this course is ongoing clinical experiences and practice that integrate the theoretical and practical knowledge needed to contribute to the health and disease management of acutely or chronically ill adult patients. Emphasis is on clinical decision making, which incorporates nursing and medical diagnosis, disease management of acutely or chronically ill adult patients. Emphasis is on clinical decision making, which incorporates nursing and medical diagnosis, disease management and treatment to include prescriptive practices. 180 clinical hours.
Pediatric Nurse Practitioner (PNP)
Applicants for the PNP clinical major must have clinical practice experience focused among pediatric age-group clients.

NURS 6307  Health Assessment Across the Lifespan for Advanced Practice Nurses
3.0 Semester Credit Hours
(See Family Nurse Practitioner.)

NURS 5338  Pathophysiology for Advanced Practice Nurses
3.0 Semester Credit Hours
Prerequisite: Graduate standing
(See Family Nurse Practitioner.)

NURS 6302  Pharmacotherapeutics for Advanced Practice Nurses
3.0 Semester Credit Hours
(See Family Nurse Practitioner.)

NURS 5631  Pediatric Nurse Practitioner (PNP) Diagnosis and Management: Concepts and Theory I
6.0 Semester Credit Hours
Prerequisites: NURS 5306, NURS 5226, NURS 6307, NURS 5339, NURS 6302, NURS 6308, NURS 5338, NURS 5311 (may be taken concurrently), NURS 5307 (may be taken concurrently), NURS 5631

The focus of this course is the transition of the RN to the role of the Pediatric Nurse Practitioner in health promotion, diagnosis and management of common illnesses in primary health care practice across the lifespan attending to differences in focused populations. Research and theory (scholarship) are used to identify strategies integral to advanced nursing practice for the promotion of health and prevention of illness. Using problem-based and integrated learning strategies, disorder of approximately one half of the physiologic systems are examined, critical thinking processes required for development of differential diagnosis are utilized, and therapeutic regimens for common diseases/disorders identified. Emphasizes collaborative partnerships among patient*, families, and other health care disciplines. 90 hours of clinical practicums.

NURS 5632  Pediatric Nurse Practitioner (PNP) Diagnosis and Management: Concepts and Theory II
6.0 Semester Credit Hours
Prerequisites: NURS 5306, NURS 5226, NURS 6307, NURS 5339, NURS 6302, NURS 6308, NURS 5338, NURS 5311 (may be taken concurrently), NURS 5330, NURS 5307 (may be taken concurrently), NURS 5632

The focus of this course is the progression of development of the Pediatric Nurse Practitioner in health promotion, diagnosis and management of common illnesses in primary health care practice across the lifespan, attending to differences in focused populations. Research and theory are used to identify strategies that are integral to advanced nursing practice for promotion of health and prevention of illness. Using problem-based and integrated learning strategies, disorders of approximately one half of the physiologic systems are examined, critical thinking processes required for development of differential diagnosis are utilized, and therapeutic regimens for common diseases/disorders identified. Emphasizes collaborative partnerships among patient*, family, and other health care disciplines. 135 hours of clinical practicums.

NURS 5933  Pediatric Nurse Practitioner (PNP): Role and Preceptorship
9.0 Semester Credit Hours
Prerequisites: All coursework specific to the major
This course focuses on health maintenance for patients, professionalism and ethical roles and responsibilities of Pediatric Nurse Practitioners in the health care setting; transition to an advanced practice role (marketing, negotiations, contracts); understanding the political arena of legal and social issues governing advanced practice in primary health care (including prescriptive authority); and maintaining professional partnerships within professional advanced practice nursing and health care professionals in other disciplines. 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. Practice and mastery of these skills will occur in preceptored clinical settings specific to the population focus of specialty track (PNP) and will reflect progressive competency of the Nurse Practitioner student in health promotion, diagnosis and management of patient* and family care for a culturally diverse population. The student will use problem-based integrated learning strategies and scholarship to identify and implement strategies to promote health, prevent illness,, develop and implement treatment plans, and evaluate outcomes of common and complex disorders. Critical thinking processes required for development of differential diagnosis and evaluation are required, and progressive independence of practice is expected. This course emphasizes collaborative partnerships with patient*, family, and other health care disciplines. 360 hours of clinical practicums.

Minor Courses

Administration in Nursing

NURS 5310  Administrative Strategies and Nursing Systems
3.0 Semester Credit Hours
Prerequisites: NURS 5226/or concurrent, NURS 5339/or concurrent

This course examines contemporary influences, theories, principles, and functional strategies related to organizational and management science. Included are the influence of the external and internal environment on complex systems, role relationships, planning, structure, communication, negotiation, and consultation as they apply to healthcare management concerns.
Clock hours: three clock hours class

NURS 5501  Financial Management and Decision Support Systems for Nursing Administrative Practice
5.0 Semester Credit Hours
Prerequisite: NURS 5226

This course considers advanced financial management concepts (financial statements, capital budgeting, forecasting, rate setting, costing out of nursing services) and is an introduction to the concepts of decision-support systems in the administration of community and health care services.
Clock hours: three class hours and six practicum hours per week

Gerontology

NURS 5303  Aging, Cognition, and Dementia
3.0 Semester Credit Hours
Prerequisites: Graduate standing and completion of a graduate level research course

Cognition and Dementia will be explored from biological and psychosocial perspectives focusing particularly on assessing cognition and executive function to identify cortical and non-cortical dementias, conditions commonly associated with dementia such as Alzheimer’s disease, the nursing management of patients and their caregivers and family. The most recent research of the correlates of dementia and cognitive decline will be evaluated. Local, state, and national
resources will be explored. Community agencies providing services for elders will offer opportunities for students to conduct dementia screening, collaboration with other health care providers, and community education. Strategies to manage communication, wandering behavior, incontinence, and other behavioral manifestations of dementia will be used in interventions with caregivers in institutional and community settings.

NURS 5304 Health Issues in Gerontology

3.0 Semester Credit Hours

Prerequisites: Graduate standing

This course is a survey course of physical, psychological, and social perspectives of aging with emphasis on health and healthcare of older adults. The impact of an aging society on socio-economic, political, and healthcare systems will be explored.

Teaching of Nursing

NURS 5371 Curriculum and Instruction in Nursing

3.0 Semester 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 5372 Roles of the Teacher in Nursing

3.0 Semester Credit Hours

Prerequisite: NURS 5371

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 class hour every week, and six practicum hours per week.

Informatics in Nursing

NURS 5315 Information Systems in Health Care and Nursing

3.0 Semester Credit Hours

Prerequisites: Graduate standing and demonstration of prerequisite computer competencies

This course is an introduction to the health care and nursing computing environment. Information applications that affect health care and nursing will be emphasized. Strategic planning, selecting key personnel for the development team, determining and communicating information needs, staff education, administrative uses of information systems, and the legal/ethical issues of clinical information systems and the computerized patient record are discussed. The roles of the clinical professionals in this process are emphasized.

Clock hours: two and one-half class hours and one and one-half practicum hours.

NURS 5317 Practice and Knowledge in Health Care and Nursing Informatics

3.0 Semester Credit Hours

Prerequisites: Graduate standing and demonstration of prerequisite beginning computer competencies

This course provides a basis for understanding the impact of the Information Age and Technology on health care practice. The relationship of knowledge development in health science and the nature and structure of human knowledge are explored as a basis for critical thinking. Theoretical and applied approaches furnish a basis for understanding and participating in the development of informatics systems in health care and nursing. Emphasis is on the use of technology to access knowledge and to create research based practice protocols for informed clinical decision making in health care and nursing.

Clock hours: two and one-half class hours and one and one-half practicum hours.

Thesis

NURS 6298 Development of a Thesis Proposal

2.0 Semester Credit Hours

Prerequisites: NURS 5306 and NURS 5307, and consent of thesis advisor

The focus of this course is development and refinement of the thesis proposal. The course is completed when the proposal is approved by the thesis advisors.

NURS 6098 Thesis

1.0–4.0 Semester Credit Hours; credit to be arranged

Prerequisite: consent of thesis advisor

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.)

Special Courses

NURS 5327 Gerontological Nursing

3.0 Semester Credit Hours

This course provides an in-depth study of human aging with a focus on nursing care issues. Concepts that are presented include bio-psycho-social changes with aging, mental health/illness, family/cultural/social issues, specific nursing care problems, and health policy related to the elderly. Students are expected to analyze and critique the most recent research related to the topics presented and actively participate in a problem-solving approach to nursing care issues related to the older client.

Clock hours: three class hours per week. (This course may be combined with an additional independent study course for a practicum.)

NURS 6304 Acute Nursing Care: Perioperative

3.0 Semester Credit Hours

Prerequisite: NURS 5510

This course is designed to give students the opportunity to develop the focal area of perioperative nursing. Philosophical and theoretical concepts and constructs applied to the three main roles of the master’s prepared perioperative nurse (advanced practitioner, educator, and manager) will be presented. Current issues and technological advances will be investigated. Organizational, socioeconomic, and political forces impacting on the delivery of surgical services will be analyzed. The clinical experience is a significant portion of the course and will take place within inpatient or outpatient surgical areas which reflect the student’s area of interest. Inter- and intradisciplinary interactions, problem solving, and critical thinking abilities within the complex surgical arena will be expected within the clinical experience.

Clock hours: one and one-half class hours and four and one-half practicum hours per week.
NURS 6306  Social Cultural Concepts in Public
Health Practice
3.0 Semester Credit Hours
This is a basic theory course for public health nursing/public health practice. It stresses biological, social, and cultural concepts related to health and illness in society. The focus is the role of these concepts in determining disease, treating disease, promoting health, and organizing health services. The course examines the relationship between these concepts and community value systems for application to planning interventions in public health.

Elective Courses
The specific electives offered vary from semester to semester and are listed in the course schedule for each semester and summer session. The school reserves the right to cancel a class with insufficient student enrollment. Classes and practicums offered during summer sessions may be in a concentrated format.

NURE 5001  Mentored Research Practicum:
State of the Science
1.0–2.0 Variable Semester Credit Hours
Prerequisites: receipt of a research scholar award; concurrent enrollment in NURE 5115; submit a completed, signed student/faculty mentor contract for student’s Graduate Nursing Office file
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 course the student actively participates in selected aspects of a research project with a faculty mentor.

NURE 5002  Mentored Research Practicum:
Proposal Development
1.0–2.0 Variable Semester Credit Hours
Prerequisites: receipt of a research scholar award; concurrent enrollment in NURE 5115; submit a completed, signed student/faculty mentor contract for student’s Graduate Nursing Office file.
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 course the student actively participates in selected aspects of a research project with a faculty mentor.

NURE 5003  Mentored Research Practicum:
Instrumentation
1.0–2.0 Variable Semester Credit Hours
Prerequisites: receipt of a research scholar award; concurrent enrollment in NURE 5115; submit a completed, signed student/faculty mentor contract for student’s Graduate Nursing Office file.
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 course the student actively participates in selected aspects of a research project with a faculty mentor.

NURE 5004  Mentored Research Practicum:
Statistical Methods
1.0–2.0 Variable Semester Credit Hours
Prerequisites: receipt of a research scholar award; concurrent enrollment in NURE 5115; submit a completed, signed student/faculty mentor contract for student’s Graduate Nursing Office file
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 course the student actively participates in selected aspects of a research project with a faculty mentor.

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 course the student actively participates in selected aspects of a research project with a faculty mentor.

NURE 5005  Mentored Research Practicum:
Proposal Testing
1.0–2.0 Variable Semester Credit Hours
Prerequisites: receipt of a research scholar award; concurrent enrollment in NURE 5115; submit a completed, signed student/faculty mentor contract for student’s Graduate Nursing Office file
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 course the student actively participates in selected aspects of a research project with a faculty mentor.

NURE 5006  Mentored Research Practicum: Research
Results/Policy
1.0–4.0 Variable Semester Credit Hours
Prerequisites: receipt of a research scholar award; concurrent enrollment in NURE 5115; submit a completed, signed student/faculty mentor contract for student’s Graduate Nursing Office file
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 course the student actively participates in selected aspects of a research project with a faculty mentor.

NURE 5007  Clinical Applications in Advanced Nursing
Practice
1.0–4.0 Variable Semester Credit Hours
Prerequisites: NURE 6307
This course provides an opportunity for qualified students to work closely with a faculty member and/or preceptor who is/are actively engaged in advanced clinical practice.

NURE 5115,  Application of Research in Nursing
5215, 5315
1.0–3.0 Semester 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 5152/5153 Social and Moral Values in the
or NURE 5252  Health Professions
NURE 5152/5153 — 1.0 Semester Credit Hour = 1 class hour
NURE 5252 — 2.0 Semester Credit Hours = 2 class hours
This interdisciplinary course focuses on current bioethical issues and dilemmas encountered in the delivery of services by health professionals. The sequence of topics, taught by an interdisciplinary team of faculty members and guest speakers, spans the entire academic year. The first classes will have the opportunity to develop a philosophical framework for ethical decision making. Subsequent sessions will offer an opportunity to utilize this framework in the analysis of selected current ethical issues such as euthanasia, ethics of research, abortion, allocation of scarce resources, and reproductive technology. Each class consists of a presentation of an ethical issue followed by class discussion. This course is open to nursing students enrolled in the undergraduate, graduate, or flexible process. This course may be taken in either the fall or spring semester for one or two hours of credit.
Students may register for two hours of credit (NURE 3252/5252) only once, but may do so in either the fall or spring semester. Clock hours: one class hour or two class hours per week.

NURE 5195 Mentored Research Scholars
1.0 Semester Credit Hour
Prerequisites: Concurrent enrollment in a 1- or 2-semester credit hour NURE 5115; submit a completed, signed student/faculty mentor contract for student's Graduate Nursing Office file; receive acceptance of the plan for mentored contract
This course is taught each semester for the students designated as Student Research Scholars to share learning experiences and gain insights through discussion in a Research Scholar Seminar.

NURE 5242 Psychotherapy with Groups
2.0 Semester Credit Hours
Prerequisites: NURS 5306, NURS 5307, NURS 5339
This course emphasizes theory and clinical practice in group psychotherapy. Selected models including psychoanalytic, Tavistock, group focal conflict, Gestalt, and expressive therapies are compared and contrasted. The role of the nurse as leader and/or co-leader within psychotherapeutic groups is examined. Research ideas are formulated based on both practice and theory.

NURE 5314 Nursing Interventions in Pain
3.0 Semester Credit Hours
This course is a survey and analysis of current theories about pain and its alleviation. The exploration of nurses' role in pain management is included.
Clock hours: three class hours per week.

NURE 5334 Nursing Care of the Patient in Crisis in the Emergency Department
3.0 Semester Credit Hours; 15 Clock Hours per semester
This course is designed to explore various theories, concepts, and research in the nursing care of the patient in crisis within the Emergency Department. A holistic approach will be taken utilizing nursing process. The focus will be upon individualization of the nursing process in the care of the patient in the Emergency Department. Continuity of care will be emphasized from admissions to stabilization, transfer, discharge and/or clinical follow-up.

NURE 5341 Psychotherapy with Families
3.0 Semester Credit Hours
Prerequisites: NURS 5307 recommended
Students examine various paradigms of family therapy, comparing and contrasting psychoanalytic, communication, strategic, structural, integrative, and systems models. A supervised practicum provides the opportunity for application of selected frameworks to dysfunctional families. Major aspects of the role of the psychiatric/mental health nurse in family therapy are developed and analyzed. Research ideas are formulated based on both practice and theory.

NURE 5344 Psychiatric Nursing of Children and Adolescents
3.0 Semester Credit Hours
Prerequisites: Generic: NURS 3522; Flexible: NURS 3624; Graduate: none
This course is designed to provide the student with an overview of the field of psychiatric and mental health nursing of children and adolescents. The emphasis of the course is placed on the various psychopathologies, as well as the currently suggested treatment approaches and nursing interventions in working with disturbed children and adolescents. The etiologies and perpetuation of child and adolescent psychopathologies will be explored. The nurse's role in the prevention of mental disorders in children and adolescents will be identified. A review of current thinking in terms of family assessment and family intervention will be a significant component of the course. Collaborative work is part of the course teaching method.

NURE 5351 Nursing Management of Dysrhythmias
3.0 Semester Credit Hours
Prerequisites: Generic: completion of Semester II; Flex: admission to program; Graduate: admission to program/course open to Continuing Education participants
The emphasis of this course is on the electrophysiologic basis of cardiac dysrhythmias, their management, and the nursing responsibilities associated with each type of dysrhythmia. The course is designed to increase the student's understanding of electrocardiography (EKG) gradually, beginning with information on the anatomy and physiology of the heart, electrophysiology, normal electrical activation of the heart, and mechanisms of dysrhythmias. Throughout the course, nursing responsibilities regarding EKG interpretation and nursing intervention pertinent to specific dysrhythmias will be stressed, incorporating the nursing process. Clock hours: one and one-half class hours and four and one-half practicum hours per week.

NURE 5362 Ethical Legal Aspects in Nursing and Health Care
3.0 Semester Credit Hours
Prerequisite: NURS 38 or Graduate standing
This course introduces the student to contemporary bioethical and legal issues confronting nurses who provide care in a variety of settings. The major focus of the course will be on ethical decision making and the contemporary nursing practice.
Clock hours: three class hours per week.

NURE 5367 Hispanic Health Concerns: A Nursing Perspective
3.0 Semester Credit Hours
Prerequisite: NURS 3811 or Graduate standing
This course is designed to provide the student with a comprehensive, in-depth view of topics and issues influencing the health of the Hispanic population in order to enhance the cultural sensitivity of the health care provider. An overview of the characteristics of the Hispanic population is given as well as data in relation to lifestyle, major health concerns, and research findings on Hispanic health across the life cycle. The use of folk practices, herbal medicine, and utilization of the health care delivery system and its implications to nursing practice is addressed. The role of the nurse in disease prevention is explored within the framework of the life cycle. Nursing interventions to overcome language barriers are provided including sources for Spanish language, culturally relevant publications.
Clock hours: three class hours per week.

NURE 5412 Gross Anatomy for Advanced Practice Nurses
4.0 Semester Credit Hours
Prerequisites: Graduate Standing. Strongly recommended that this elective be taken before NURS 6307, NURS 5338, and NURS 6302.
This multidisciplinary elective course is an expansion of basic anatomy with the additional use of cadavers (when available), cadaver dissections, models, atlas drawings, and photographs. This course will concentrate on osteology, arthrology, and major organ systems as they apply to Advanced Practice Nursing. This course focuses on gross anatomy to include normal structures, landmarks, normal variations, and pathology. Clinical applications will be introduced in connection to gross anatomy. This course is Web-enhanced with some lectures and laboratory sessions on campus.
NURE 5415  Psychiatric Mental Health Therapy/Individual 4.0 Semester Credit Hours
This course emphasizes the development of psychiatric mental health nurse specialist skills through individually supervised practice, analysis, and evaluation of interpersonal process with a client experiencing psychological dysfunction. Students examine factors fostering mental health and mental illness, assumptions about human behavior, and the developing practice of psychiatric/mental health nursing. Relevant theories are utilized to guide the nurse-client interpersonal process. Assessment of clients’ health status with particular emphasis on psychosocial and mental functioning provide the basis for nursing intervention emphasizing the therapeutic use of self, critical application of research findings, and collaboration with other mental health personnel.

NURE 5445  Mental Health Liaison/Consultation Nursing 4.0 Semester Credit Hours
Prerequisites: NURS 5306, NURS 5307, NURS 6308
This course is designed to further develop the psychiatric/mental health clinical specialist’s role in liaison/consultation nursing. Current liaison/consultation nursing roles are examined, impediments and opportunities for role development are analyzed, collaborative relationships are explored, and new roles are projected. Selected aspects of the liaison/consultation nurse specialist’s role are implemented and evaluated within a designated setting. Students utilize relevant theories to analyze the social, economic, and political forces within a social system related to the delivery of psychosocial care. Special emphasis is given to prioritizing needs and rendering selected mental health services within that social system. Areas of needed research within mental health liaison/consultation practice are explored.

NURE 5090  Topics of Special Interest in Nursing: Adolescent Pregnancy: Nursing Implications of Biological, Psychological, and Sociological Perspectives 3.0 Semester Credit Hours
This course 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.

NURE 5090  Topics of Special Interest in Nursing: Anthropological Perspectives on Nursing and Health 3.0 Semester Credit Hours
Prerequisite: Graduate standing
The course will be 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 1.0–4.0 Semester Credit Hours
Prerequisites: Graduate standing and consent of instructor
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.

NURE 5110  Interdisciplinary Team Approach to Pain Management 1.0 Semester Credit Hour
Prerequisites: open to students enrolled in nursing, dental, medical, occupational and physical therapy schools, and the clinical pharmacy program; OT 4; MPT 1–3; PharmD; DS 3&4; MS 1–4; NS 2, 3, & 4; and Graduate
This course provides an overview of concepts and management of pain from a clinical interdisciplinary health care team perspective. The content includes the classification, characteristics, and assessment of pain and interventions for pain control (pharmacologic, invasive, cognitive, and physical). Emphasis will be placed on respecting the contribution of each member of the health care team through student involvement in case studies. The faculty and student body will be multidisciplinary representing Allied Health (Occupational Therapy and Physical Therapy), Dentistry, Medicine, Nursing, and the Clinical Pharmacy programs.

Doctor of Philosophy Program
Objectives
The objectives of the doctoral program are designed to provide the student the opportunity to:
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.
4. Advance clinical practice through research utilization.
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 University of Texas Health Science Center at San Antonio (UTHSCSA) School of Nursing (UTHSCASN). The PhD degree is awarded by the University of Texas Health Science Center at San Antonio Graduate School of Biomedical Sciences.

Degree Requirements
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 entering the program post-BSN have a total maximum enrollment time of seven years. Post-MSN students have a five year total maximum enrollment for acquiring the PhD degree.

All students will be required to complete a qualifying exam. The qualifying examination, which is completed near the end of following the completion of coursework, determines continuation in the program.
Any PhD student must be enrolled in a minimum of one (1) semester hour of course work at UTHSCSA in order to be enrolled in the PhD program of study. If the student is not enrolled, the student must take a Leave Of Absence (LOA) or withdraw from the program. Coursework 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 PhD degree, must be repeated or specifically approved by the Committee on Graduate Studies. All doctoral work is subject to review by the Graduate Faculty Council and the Dean, Graduate School of Biomedical Sciences.

All policies of the Graduate School of Biomedical Sciences are applicable to this program of study.

**Curriculum**

A minimum of 80 semester credit hours of graduate courses is required for the Doctor of Philosophy degree. The MSN-prepared applicant will be given advanced placement dependent upon an evaluation of master’s-level courses. Support courses may be taken outside the School of Nursing.

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<th>Minimum Semester Credit Hours</th>
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<tr>
<td>Theory/Research/Science</td>
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<tr>
<td>Study of theory in nursing, research, and discovery process</td>
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<td>NURE 5115-5315 Application of Research in Nursing</td>
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<td>NURS 7310 Theory Development, Analysis, and Evaluation in Nursing</td>
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<td>NURS 7480 Qualitative Inquiry for Clinical Nursing Research</td>
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<td>NURS 7383 Qualitative Methods II: Application in Nursing Science</td>
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<td>NURS 6374 Nursing—Content and Practice: Quantitative Research Methodology I</td>
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<td>NURS 6373 Nursing—Quantitative Research Methods II</td>
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<td>NURS 7381 Synthesis and Application of Clinical Research</td>
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<td>NURS 6376 Mixed Methods for Clinical Nurse Scientists</td>
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<th>Clinical Practice</th>
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<td>Study of advanced direct patient care</td>
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<th>Statistics</th>
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<tr>
<td>NURS 5306 Statistical Analysis for Nursing Science or equivalent course</td>
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<td>NURS 6375 Regression Models for Nursing Science</td>
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<td>NURS 7382 Structural Equation Models for Nursing Science</td>
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<th>Professional/Socialization</th>
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<tr>
<td>Study of advanced professional elements and issues, role(s) socialization</td>
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<tr>
<td>NURS 6225 Philosophy of Nursing Science</td>
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<td>NURS 6226 Ethics of Nursing Science</td>
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<td>NURS 6105 Role of the Clinical Nurse Scientist</td>
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**Doctoral Course Descriptions**

**NURS 6071 Supervised Teaching**

*1.0–6.0 Semester 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.

**NURS 6105 Role of the Clinical Nurse Scientist**

*1.0 Semester 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. Participants will explore potential settings for practice which are traditional such as academic health centers as well as emerging venues. Discussions about issues that may affect the Clinical Nurse Scientist in developing lifelong career/scholarship trajectories will occur.

**NURS 6225 Philosophy of Nursing Science**

*2.0 Semester Credit Hours*

Prerequisites: study of advanced professional elements and issues; role(s) socialization

The focus of this course is on articulating the differences in models of knowing and 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: four seminar hours per week

**NURS 6226 Ethics of Nursing Science**

*2.0 Semester 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 6373 Nursing—Quantitative Research Methods II**

*3.0 Semester Credit Hours*

Prerequisites: NURS 6225, 6226, 6374, 7310, 7380, 6375; Co-requisite: NURS 7381

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.

**NURS 6374 Nursing—Content and Practice: Quantitative Research Methodology I**
3.0 Semester Credit Hours
Prerequisite: NURS 7490
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 6375  Regression Models for Nursing Science
3.0 Semester Credit Hours
Prerequisite: Graduate standing
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.

NURS 6376  Mixed Methods for Clinical Nurse Scientists
(available spring 2006)
3.0 Semester Credit Hours
Prerequisite: NURS 6374, 7380
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. The student will use 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.

NURS 7310  Theory Development, Analysis, and Evaluation in Nursing
3.0 Semester Credit Hours
Prerequisites: Masters level theory/research; Pre- or Co-requisite: NURS 6225, 6226
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 will 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 gain practice in strategies for middle-range theory building.

NURS 7380  Qualitative Inquiry for Clinical Nursing Research
3.0 Semester Credit Hours
Prerequisites: NURS 6225, 6226, 7310 (Prerequisite or concurrent)
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, and action research, focus group methods. Students will utilize criteria for evaluating qualitative research reports to critique qualitative research studies. Students will analyze the relationship between a clinical problem and specific research methods. They will develop research questions and analyze their applicability to specific clinical issues and will learn varied strategies for collecting and analyzing qualitative research data.

NURS 7381  Synthesis and Application of Clinical Research
3.0 Semester Credit Hours
Prerequisites: NURS 6225, 6226, 7310, 6374, 6375, 6105
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 will be actively involved in the critique and analysis of published literature and other students' dissertation proposals, grant applications, and manuscripts.

NURS 7382  Structural Equation Models for Nursing Science
3.0 Semester Credit Hours
Prerequisites: Intermediate Statistics
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.

NURS 7383  Qualitative Methods II: Application in Nursing Science
(available spring 2006)
3.0 Semester Credit Hours
Prerequisites: 6225, 6226, 6374, 7380
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 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 will practice and learn strategies and processes for conceptualizing and implementing a qualitative study guided by a specific qualitative methodology.

Dissertation

NURE 7090  The Dissertation Proposal Process in Nursing
1.0–3.0 Semester Credit Hours
Prerequisites: successful completion of the written and oral qualifying examinations
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.
Grades and Progression —
(MSN and PhD)

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.

Other symbols used in reporting the standing of students in their classes are: S=satisfactory; U=unsatisfactory; Q=course dropped, no penalty; 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 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  
- B = 3 points  
- C = 2 points  
- D = 1 point  
- F = 0 points

Grade point average is computed by multiplying the number of semester credit hours for each course by the grade points assigned and then dividing the total by the total number of semester credit hours.

Repetition of a Course
Credit for courses in which a D or F is received may be obtained only by repetition of the course. If a course is repeated, only the second grade will be used in calculating the cumulative grade point average. Courses which the student completes with a C or higher cannot be repeated. No course can be repeated more than one time.

Incompletes
With the permission of the course instructor, an Incomplete (I) may be recorded if a student has not completed all assignments before the conclusion of the course. Prior to the recording of an Incomplete (I), a written agreement must be signed by the instructor and student designating a specified time period (initially, 3 months and not to exceed one year total) in which the I will be removed. Should the student fail to meet the terms of the agreement, the grade will be changed to an F. Registration in a sequential course requires that an Incomplete be removed.

Satisfactory-Unsatisfactory Computations
Courses selected as electives by students may be taken on a Satisfactory-Unsatisfactory basis, with the permission of the instructor. If the course taken on this basis is passed, the symbol S will be recorded on the transcript; if unsatisfactory, the symbol U is recorded. S or U grades are not included in the computation of the grade point average.

Thesis and Dissertation Course Reporting
Thesis and dissertation courses will be reported as In Progress (IP) until the work is completed, at which time they will be reported as Satisfactory or Unsatisfactory. Thesis and dissertation courses are not counted in the grade point average.

Auditing
Nursing graduate students may audit nonclinical courses taught by the Nursing faculty with the approval of the instructor and the Associate Dean for Graduate Nursing Program providing there is space available after registered students have been accommodated. 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. There is a fee for audited courses.

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.

Semester Reports
Grade reports are sent to all students at the end of each semester.

Progression in the Graduate Program
To continue in the graduate program, a student must:

a. 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;

b. maintain satisfactory progress (B average in first 9 hours) if conditionally admitted;

c. receive no more than one C in clinical major courses;

d. maintain a minimum cumulative grade point average of B (3.0) for all courses taken while enrolled in the graduate program; and

e. maintain a minimum cumulative grade point average of B (3.0) for all nursing courses taken while enrolled in the graduate program.

Should a student fail to meet criteria, a, b, or c for continuance in the program, her/his progress will be reviewed by the Committee on Graduate Studies which may:

a. impose conditions as requirements for continuation in the program, or

b. terminate the student’s enrollment in the program, with the consent of the Dean of the Graduate School of Biomedical Sciences.

Readmission
Individuals who have previously been enrolled in graduate nursing courses should complete an application for readmis-
sion. Transcripts from any colleges or universities attended since the time of the previous enrollment in the master’s program 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 two consecutive terms 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. (See “Readmission to the School of Nursing,” p. 366.)

General Policies for Graduate Nursing Program

Full-Time Student Status
Full-time student status in the Master of Science in Nursing program is nine (9) semester hours of coursework in a regular semester, or six (6) semester hours of summer.

Uniforms
Graduate students are responsible for purchasing uniforms and laboratory coats. Name badges are issued by the Office of Student Services. Laboratory coats may be purchased from the Health Science Center Bookstore.

Change of Address
If a student’s home or campus address changes after registration, that student is expected to notify the Office of Student Services and the Office of the Graduate Nursing Program. Students will be held responsible for any communication from school offices sent to them at the address last given.

Teaching Assistants
Opportunities are available for graduate nursing students enrolled part-time to work as teaching assistants in the School of Nursing Learning Laboratory. Teaching assistants work with undergraduate students, assisting them to learn technical skills. Interested applicants should contact the School of Nursing for additional information.

Transfer of Credit
Academic work for the Master of Science in Nursing is usually completed within The University of Texas Health Science Center at San Antonio. However, students may, with the approval of their advisors, transfer from another accredited institution a maximum of six semester credit hours (9 quarter hours) of graduate elective credit applicable to a course of study leading toward the Master of Science in Nursing degree. Additional graduate courses may be transferred from other accredited institutions upon the approval of the Committee on Graduate Studies, with the number not to exceed an additional six semester credit hours. The doctoral program provides special opportunities for an increased number of hours of transfer credit.

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 her/his advisor with an official course description from the catalog and must ascertain 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.

Upper-Division Coursework
The maximum number of credit hours of upper-division level coursework which may be included is three, and such undergraduate coursework must be completed within the School of Nursing. This coursework is for elective credit only.

Correspondence Courses
Courses completed by correspondence are not accepted for graduate credit.

Residence
Each degree candidate must complete two semesters of full-time study, or the part-time equivalent, in residence at The University of Texas Health Science Center at San Antonio. No student may receive advice and assistance from a member of the faculty in the preparation of the thesis or dissertation without being registered (if necessary for multiple semesters) for the thesis/dissertation course.

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 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 may terminate a student’s enrollment at any time if the student does not meet the criteria for continuance in the program.

Adding Courses
After registration, during the first four days of any semester or the first two class days of the summer session, a student may add a course with the approval of the instructor and Associate Dean for Graduate Nursing Program. After the
add-course card has been completed, it must be submitted to the Registrar for recomputation of tuition and fees.

**Dropping Courses**

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.

Students may, with the approval of the faculty and the Associate Dean for Graduate Nursing Program, drop a course before the first examination/graded assignment without having a grade recorded on the transcript. The symbol Q will be recorded and the grade computation will not be affected.

With the approval of the instructor and the Associate Dean for Graduate Nursing Program, a student may drop a course at any time before the last official class day in the semester if a passing grade has been maintained. The symbol WP will be recorded. Courses dropped by a student who has not maintained a passing grade will be noted on the transcript with the symbol WF. A student may not drop a course if all assignments have been submitted to the faculty for grading, nor may a student drop a course for which an Incomplete (I) has been assigned.

**Withdrawal**

Permission for withdrawal from the Graduate Program in Nursing may be granted by the Associate Dean for Graduate Nursing Program on written request by the student, and after consultation with the student’s faculty advisor. In the case of withdrawal before the end of the semester or the 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, A through F, will be recorded for each completed course and WP or WF for each course not completed. The student must meet with the Associate Dean for Graduate Nursing Program to initiate the withdrawal process. Any student who withdraws at any time must complete a Student Clearance Form at the time of withdrawal. A student who discontinues class attendance in any course without completing formal drop or withdrawal procedures shall receive a grade of WF for the 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.

**Completion of Clinical Preceptorship**

Clinical preceptorships, whether elective or required for the clinical major, must be completed during the semester in which the course is taken.

**Leave of Absence**

Permission for a leave of absence from the Graduate Program in Nursing for a maximum period of one year may be granted upon written application of the student. To be eligible to request a leave of absence, a student must have maintained a 3.0 grade point average, must have resolved all grades of Incomplete (I), and must not have dropped any course(s) with a WF. The student must meet with the Associate Dean for Graduate Nursing Program to initiate the Leave of Absence process. A leave of absence indicates that the student will be permitted to reenroll within a one-year time limit. Students who do not return within the time limit must apply for readmission.

**Student Responsibility**

Students are held responsible for knowing degree requirements and for enrolling in courses that fit their degree programs. Students are likewise held responsible for knowing the Graduate School and Nursing program regulations with regard to the standard of work required for continuance in the graduate programs. Additional information should be obtained from the graduate advisor.

**Deferred Enrollment**

Each applicant accepted to the graduate program is admitted for a specific semester. If an applicant chooses to defer enrollment to a subsequent semester, he/she must be reconsidered for admission. The applicant must submit a written request indicating intent to defer and specify the desired semester for enrollment. Admission in a subsequent semester cannot be assured.

**Professional Liability Insurance**

All students enrolling in nursing courses will be required to show evidence of professional liability insurance coverage in at least a minimum amount of $1,000,000 limit each claim and $3,000,000 limit aggregate in order to complete registration. Such insurance must be purchased through the University at the time of registration. Coverage is required from the student’s first day of class throughout her or his program of study. Liability insurance purchased through the University is applicable to the student role only. Nurse practitioner students are required to pay an additional insurance fee. (See “Financial Information” in this Catalog. p. 82.)
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<thead>
<tr>
<th>Date</th>
<th>Activity</th>
<th>Student Group</th>
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<tbody>
<tr>
<td>Monday, May 02, 2005</td>
<td>Web Registration Opens for Fall 2005</td>
<td>Continuing</td>
</tr>
<tr>
<td>Monday–Friday, August 22–26, 2005</td>
<td>Orientation &amp; Registration-New Students only</td>
<td>New</td>
</tr>
<tr>
<td>Monday, August 29, 2005</td>
<td>1st Class Day</td>
<td>All</td>
</tr>
<tr>
<td>Monday, September 05, 2005</td>
<td>*University Holiday (Offices Closed)</td>
<td></td>
</tr>
<tr>
<td>Wednesday, September 14, 2005</td>
<td>Census Day</td>
<td>All</td>
</tr>
<tr>
<td>Thursday, November 24, 2005</td>
<td>*University Holiday (Offices Closed)</td>
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</tr>
<tr>
<td>Friday, November 25, 2005</td>
<td>*University Holiday (Offices Closed)</td>
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<tr>
<td>Friday, December 09, 2005</td>
<td>Last Class Day</td>
<td>All</td>
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<tr>
<td>Friday, December 16, 2005</td>
<td>Term Concludes</td>
<td>All</td>
</tr>
<tr>
<td>Friday, December 23, 2005</td>
<td>Graduation (No Ceremony)</td>
<td>All</td>
</tr>
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</table>

*University Holidays Tentative

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<table>
<thead>
<tr>
<th>Date</th>
<th>Activity</th>
<th>Student Group</th>
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<tbody>
<tr>
<td>Tuesday, November 01, 2005</td>
<td>Web Registration Opens for Spring 2006</td>
<td>Continuing</td>
</tr>
<tr>
<td>Monday–Friday, January 9–13, 2006</td>
<td>Orientation &amp; Registration-New Students only</td>
<td>New</td>
</tr>
<tr>
<td>Monday, January 16, 2006</td>
<td>*University Holiday (Offices Closed)</td>
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<tr>
<td>Tuesday, January 17, 2006</td>
<td>1st Class Day</td>
<td>All</td>
</tr>
<tr>
<td>Wednesday, February 01, 2006</td>
<td>Census Day</td>
<td>All</td>
</tr>
<tr>
<td>Monday, February 20, 2006</td>
<td>*University Holiday (Offices Closed)</td>
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</tr>
<tr>
<td>Monday, March 13, 2006</td>
<td>Spring Break Begins</td>
<td>All</td>
</tr>
<tr>
<td>Friday, March 17, 2006</td>
<td>Spring Break Ends</td>
<td>All</td>
</tr>
<tr>
<td>Friday, May 05, 2006</td>
<td>Last Class Day</td>
<td>All</td>
</tr>
<tr>
<td>Friday, May 12, 2006</td>
<td>Term Concludes</td>
<td>All</td>
</tr>
<tr>
<td>Thursday, May 18, 2006</td>
<td>Graduation Rehearsal 1:00 PM</td>
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<tr>
<td>Sunday, May 21, 2006</td>
<td>Graduation-Laurie Auditorium 9:00 AM</td>
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</tr>
<tr>
<td>Monday, May 29, 2006</td>
<td>*University Holiday (Offices Closed)</td>
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*University Holidays Tentative

### Summer 2006

<table>
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<tr>
<th>Date</th>
<th>Activity</th>
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<tr>
<td>Monday, April 03, 2006</td>
<td>Web Registration Opens for Summer 2006</td>
<td>Continuing</td>
</tr>
<tr>
<td>Monday, May 22, 2006</td>
<td>1st Class Day</td>
<td>All</td>
</tr>
<tr>
<td>Monday, May 29, 2006</td>
<td>*University Holiday (Offices Closed)</td>
<td></td>
</tr>
<tr>
<td>Friday, June 02, 2006</td>
<td>Census Day</td>
<td>All</td>
</tr>
<tr>
<td>Tuesday, July 04, 2006</td>
<td>*University Holiday (Offices Closed)</td>
<td></td>
</tr>
<tr>
<td>Thursday, August 10, 2006</td>
<td>Last Class Day</td>
<td>All</td>
</tr>
<tr>
<td>Friday, August 11, 2006</td>
<td>Term Concludes</td>
<td>All</td>
</tr>
<tr>
<td>Saturday, August 19, 2006</td>
<td>Graduation (No Exercises)</td>
<td>All</td>
</tr>
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*University Holidays Tentative

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Note: The 2006–2007 Academic Calendar will be made available on the Student Services Web in the Fall.
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Medical School 5
Carrie J. Braden, PhD, RN
Associate Dean for Research
School of Nursing 5
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Associate Dean for Graduate Medical Education
Medical School 5
Theresa Chiang, EdD
Vice President for Academic Administration 3
Francisco G. Cigarroa, MD
President of UTHSCSA 3
C. Nanette Clare, MD
Senior Associate Dean and Associate Dean for Academic Affairs
Medical School 4
Pedro L. Delgado, MD
Associate Dean for Faculty Development and Chair, Dept. of Psychiatry
Medical School 5
Armando Diaz, MEd
Vice President for Governmental Relations 3
William W. Dodge, DDS
Vice Dean
Dental School 4
Mary G. Edlinger, MBA
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Robin D. Froman, PhD, RN, FAAN
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School of Nursing
Beverly C. Robinson, PhD, RN, FAAN 5

Associate Dean, Undergraduate Nursing Program
School of Nursing
Brenda Jackson, PhD, RN 5

Associate Dean for Academic Affairs
Dental School
Birgit Glass, DDS, MS 4

Associate Dean for Academic Affairs and Senior Associate Dean
Medical School
C. Nanette Clare, MD 4

Associate Dean for Admissions
Medical School
David J. Jones, PhD 5

Associate Dean for Continuing Medical Education
Medical School
Martha Medrano, MD 5

Associate Dean for External Affairs
Dental School
M. Elaine Neenan, DDS, MS, MPH 4

Associate Dean for Faculty Development and Chair, Department of Psychiatry
Medical School
Pedro L. Delgado, MD 5

Associate Dean for Finance
Medical School
William R. Allen, MHSA 5

Associate Dean for Graduate Medical Education
Medical School
Lois L. Bready, MD 5

Associate Dean for Research
School of Nursing
Carrie J. Braden, PhD, RN 5
Dental School
Bjorn Steffensen, DDS, MS, PhD 4

Associate Dean for Student Affairs
Medical School
Leon D. Jones, MD 5
Dental School
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