TEXAS TECH UNIVERSITY
HEALTH SCIENCES CENTER
School of Allied Health Sciences™








2009-2010 Catalog

Publication Policy

The programs, policies, statements, fees and/or courses contained in this document are subject to continuous review and evaluation. The School of Allied Health Sciences reserves the right to make changes at any time without notice. This publication is therefore intended for information purposes only. Matriculation information particular to the individual programs within the School of Allied Health Sciences is contained in departmental handbooks issued to admitted students upon enrollment. Students should consult these publications for detailed information regarding policies, procedures and resources.

Equal Opportunity Statement

The School of Allied Health Sciences is committed to a policy of equal opportunity for all, and will not discriminate on the basis of race, color, sex, age, religion, national origin, handicap, or disability.

Admission Inquiries

All inquiries concerning admission to the School of Allied Health Sciences should be addressed to:

Texas Tech University Health Sciences Center
School of Allied Health Sciences
3601 4th Street, STOP 6294
Lubbock, TX 79430
(p) 806.743.3220
(f) 806.743.2994
www.ttuhsc.edu/sah

General Information

Table of Contents

GENERAL INFORMATION

Frequently Asked Questions

Q: What degrees does the School of Allied Health Sciences offer?
A: The School of Allied Health Sciences offers the following degrees:

- Bachelor of Science (B.S.)
  - Clinical Laboratory Science
  - Clinical Services Management
  - Health Science
  - Speech, Language and Hearing Sciences
- Master of Athletic Training (M.A.T)
- Master of Occupational Therapy (M.O.T.)
- Master of Physician Assistant Studies (M.P.A.S.)
- Master of Physical Therapy (M.P.T.)
- Doctor of Physical Therapy (D.P.T.)
- Master of Rehabilitation Counseling (M.R.C.)
- Master of Science (M.S.)
  - Clinical Practice Management
  - Molecular Pathology
  - Speech-Language Pathology
- Doctor of Audiology (Au.D.)
- Doctor of Science in Physical Therapy (Sc.D.)
- Doctor of Philosophy in Communication Sciences and Disorders (Ph.D.)
- Doctor of Philosophy in Rehabilitation Sciences (R.S.)

Q: How can I apply for admission to the School of Allied Health Sciences?
A: The online application may be accessed via the Texas Tech University Health Sciences Center, School of Allied Health Sciences' web site at www.ttuhsc.edu/sah. Physician Assistants must apply using CASPA which may be accessed through www.ttuhsc.edu/sah or www.caspaonline.org.

Q: How can I contact the School of Allied Health Sciences?
A: You can contact us by using the following information:

Texas Tech University Health Sciences Center
School of Allied Health Sciences
Office of Admissions and Student Affairs
3601 4th Street, Suite 2BC 194
Lubbock, TX 79430
806-743-3220, fax 806-743-2994
www.ttuhsc.edu/sah

Q: How is the School of Allied Health Sciences organized?
A: Our sixteen programs are organized into four Departments:

- Department of Clinic Administration and Rehabilitation Counseling
  - Program in Clinical Services Management (B.S.)
  - Program in Clinical Practice Management (M.S.)
  - Program in Rehabilitation Counseling (MRC)

- Department of Laboratory Sciences and Primary Care
  - Program in Clinical Laboratory Science (B.S.)
  - Program in Molecular Pathology (M.S.)
  - Program in Physician Assistant Studies (M.P.A.S.)

- Department of Rehabilitation Sciences
  - Program in Athletic Training (M.A.T.)
  - Program in Occupational Therapy (M.O.T.)
  - Program in Physical Therapy (M.P.T., D.P.T., & Sc.D.)
  - Program in Health Sciences (B.S.)
  - Program in Rehabilitation Sciences (Ph.D.)

- Department of Speech, Language and Hearing Sciences
  - Program in Communication Sciences and Disorders (Ph.D.)
  - Program in Audiology (Au.D.)
  - Program in Speech, Language and Hearing Sciences (B.S.)
  - Program in Speech-Language Pathology (M.S.)

SOAHS Academic Calendar

Summer 2009

Orientation PA, PT, OT, AT, and SLP	May 26th
First Day of Class	**May 27th**
MP Preceptorship Begins	May 27th
Last Day of Add/Drop	June 12th
PA Clerkship 7 Ends	June 16th
PA Grand Rounds	June 18th - 19th
PA Clerkship 8 Begins	June 22nd
M.O.T. 3 Students Fieldwork II:1 Begins	June 22nd
Last Day to withdraw from TTUHSC and receive a refund	June 23rd
M.A.T. 2 Semester Ends	July 2nd
Holiday	July 3rd
MP Preceptorship Ends	July 3rd
D.P.T. Clinical Experience I: Begins (4 weeks)	July 20th
PA Clerkship 8 Ends	July 28th
PA Grand Rounds	August 3rd
PA Board Review	August 4th - 7th
M.A.T. Final Exams	August 6th - 7th
M.O.T. Final Exams	August 6th - 7th
Grades due via Web for Faculty for graduating students	August 11th
Final Day of Summer Semester	**August 14th**
D.P.T. Clinical Experience I: Ends	August 14th
August Graduates Diploma Date	August 15th
PA Clerkship 1 Begins	August 17th
Grades due via Web for Faculty	August 18th
M.O.T. 2 Students Fieldwork I: 1 Begins	August 24th
M.O.T. 2 Students Fieldwork I: 1 Ends	August 28th

Fall 2009

Orientation CLS, MP, SLHS, SLP, Au.D., and Ph.D.	August 31st
First Day of Class	**August 31st**
Holiday	September 7th
M.O.T. 3 Students Fieldwork II: 1 Ends	September 11th
Last Day of Drop/Add	September 16th
M.O.T. 3 Students Fieldwork II: 2 Begins	September 21st
PA Clerkship 1 Ends	September 22nd
PA Grand Rounds	September 24th - 25th
Last Day to withdraw from TTUHSC and receive a refund	September 28th
PA Clerkship 2 Begins	September 28th
SOAHS Job Fair	October 20th
PA Clerkship 2 Ends	November 3rd
PA Grand Rounds	November 5th - 6th
PA Clerkship 3 Begins	November 9th
Holiday	November 26th - 27th
Final Day of Semester	**December 11th**

M.O.T. 3 Students Fieldwork II: 2 Ends	December 11th
PA Clerkship 3 Ends	December 15th
Grades due via Web for Faculty for graduating students	December 15th
PA Grand Rounds	December 18th
Diploma Date	December 22nd
Grades due via Web for Faculty	December 22nd

Spring 2010

M.O.T. 2 Students Fieldwork I: 2 Begins	January 4th
CLS Preceptorship Begins	January 4th
PA Clerkship 4 Begins	January 4th
D.P.T./M.P.T. Clinical Experience III: Begins	January 11th
First Day of Class	**January 13th**
M.O.T. 2 Students Fieldwork I: 2 Ends	January 15th
Holiday	January 18th
Last Day of Add/Drop	January 28th
PA Clerkship 4 Ends	February 9th
Last Day to withdraw from TTUHSC and receive a refund	February 10th
PA Grand Rounds	February 11th – 12th
PA Clerkship 5 Begins	February 15th
D.P.T./M.P.T. Clinical Experience III: Ends	March 5th
Spring Break	March 13th – 21st
D.P.T./M.P.T. Clinical Experience IV: Begins	March 15th
MP Preceptorship Begins	March 22nd
PA Clerkship 5 Ends	March 23rd
PA Grand Rounds	March 25th - 26th
PA Clerkship 6 Begins	March 29th
PA Clerkship 6 Ends	May 4th
PA Grand Rounds	May 6th – 7th
Final Day of Semester	**May 7th**
D.P.T./M.P.T. Clinical Experience IV: Ends	May 7th
PA Clerkship 7 Begins	May 10th
CLS Preceptorship Ends	May 14th
MP Preceptorship Ends	May 14th
Grades due via Web for Faculty for graduating students	May 15th
D.P.T./M.P.T. Graduate Seminar	May 17th – 21st
Grades due via Web for Faculty	May 18th
CLS Senior Day	May 20
Convocation	May 21st
Commencement	May 22nd
Diploma Date	May 22nd

***TTUHSC SOAHS reserves the right to make calendar changes in the best interest of the faculty, students, and academic program.*

Message from the Dean

Paul P. Brooke, Jr., Ph.D., FACHE
Dean of the School of Allied Health Sciences

Paul P. Brooke, Jr.
Dean

I welcome the opportunity to introduce the School of Allied Health Sciences. Established by the Texas State Legislature in 1981, the School of Allied Health Sciences was created to educate allied health professionals to fill critical shortages in meeting crucial healthcare needs of the people of West Texas. The School of Allied Health Sciences has since become a dynamic and vital member of the Texas Tech University Health Sciences Center team.

From its first class of eighteen students in 1983, the School has grown steadily over the past twenty-five years. With campuses in Amarillo, Lubbock, Midland, and Odessa, the School now serves over 1,000 students enrolled in sixteen different degree programs at the doctoral, masters and baccalaureate degree levels. As it continues to prepare allied health professionals who will meet the evolving healthcare needs of all Texans in the 21st century, the School of Allied Health Sciences remains focused on developing and presenting educational programs of the highest quality in a student-centered learning environment.

Our objective is to offer learning opportunities that exceed nationally recognized standards of technical competence, while simultaneously developing the professional insight and service-oriented compassion that will enable graduates to excel in merging "high tech" and "high touch" throughout their professional careers. The faculty, students, and alumni of the School of Allied Health Sciences represent the very best in the complement of ideas, education, and clinical skills offered in service to the people of Texas.

Administration

Board of Regents

Term Expires May 31, 2009
Kelli Stumbo . . . . . Student Regent

Term Expires January 31, 2011
Larry K. Anders, Vice Chairman . . . . . Dallas
Mark Griffin. . . . . Lubbock
Daniel "Dan" T. Serna . . . . . Arlington

Term Expires January 31, 2013
L. Frederick "Rick" Francis . . . . . El Paso
John Field Scovell . . . . . Dallas
Jerry E. Turner . . . . . Blanco

Term Expires January 31, 2015
John Huffaker . . . . . Amarillo
Mickey L. Long . . . . . Midland
Nancy Neal . . . . . Lubbock

Health Sciences Center

Kent Hance . . . . . Chancellor
John C. Baldwin, M.D. . . . . . President
Elmo Cavin . . . . . Executive Vice President for Finance and Administration

School of Allied Health Sciences

Paul P. Brooke, Jr., Ph.D., FACHE . . . . . Dean and Professor
Hal S. Larsen, Ph.D., MT (ASCP), CLS (NCA) . . . . . Associate Dean, Chair, Department of Laboratory Sciences and Primary Care
C. Robin Satterwhite, M.B.A., Ed.D., FACHE . . . . . Associate Dean for Education Outcomes and Technologies, Chair, Department of Clinic Administration and Rehabilitation Counseling
Rajinder Koul, Ph.D., CCC-SLP . . . . . Associate Dean for Research, Chair, Department of Speech, Language and Hearing Sciences
Steven F. Sawyer, Ph.D., M.P.T.. . . . . Associate Dean for Faculty Development, Chair, Department of Rehabilitation Sciences
Michael Hooten, M.H.A., Ed.D. . . . . . Regional Dean, Amarillo
Elvin E. Maxwell, MA. MPAS. PA-C. . . . . . Regional Dean, Midland
Tony Domenech, Ed.D., PT OCS, FAAOMPT . . . . . Regional Dean, Odessa
Brenda Bobo . . . . . Director of Administration
Lindsay Roberts, M.Ed. . . . Assistant Dean for Admissions and Student Affairs

About Our School

TTUHSC Mission

The mission of the Texas Tech University Health Sciences Center is to improve the health of people by providing educational opportunities to students and healthcare professionals, advancing knowledge through scholarship and research, and providing patient care and service.

The Texas Tech University Health Sciences Center fulfills its higher education mission by achieving six strategic goals:

1. Train competent health professionals and scientists
2. Increase externally funded, peer-reviewed research, especially NIH-funded research, and research focused on aging, cancer, and rural health
3. Improve access to quality health care for the TTUHSC's target populations
4. Prepare health professions students for an increasingly diverse workforce and patient population
5. Provide leadership in the development of partnerships and collaborations to improve community health
6. Operate the TTUHSC as an efficient and effective institution

SOAHS Mission

The mission of the TTUHSC School of Allied Health Sciences is to provide a high-quality, student-centered learning environment for graduate and undergraduate education in the allied health professions; advance knowledge through scholarship and research; and provide clinical services that improve health and quality of life in Texas and the Nation.

As part of a state-supported university system, we serve the people of Texas, with particular emphasis on developing regional solutions to meet the educational and clinical needs of rural communities of West Texas.

SOAHS Vision

To earn regional and national recognition for excellence in graduate and undergraduate allied health sciences education, research and clinical services.

We will progress toward achieving this vision by:

1. Achieving high levels of excellence in teaching, research and clinical service, while fostering the professional and personal competence, growth and success of our students, our faculty and our staff.
2. Providing an environment that values, supports and rewards research and other scholarly activities.

3. Contributing to the improvement of health status and the reduction of health disparities in the communities we serve.
4. Expanding the cultural and ethnic diversity of our student-body, faculty and staff.
5. Remaining responsive to the evolving needs of our students, patients and communities we serve.

SOAHS Organizational Philosophy

As a multi-campus, regional element of the TTUHSC education system, we seek to encourage maximum learning and enhance the accessibility of our educational programs and services by applying a variety of innovative educational approaches and technologies.

We seek, through our research and clinical service activities, to contribute positively to improving the general health status and overall quality of life of the people of West Texas, while enhancing our professional and clinical competence.

Our faculty are, first and foremost, student-oriented and teaching-focused. We value activities that enhance teaching effectiveness and learning, while seeking to create an environment conducive to research and effective clinical service.

Our staff are student-oriented professionals who provide high-quality, responsive service to students and faculty. We strive to maintain an empowering environment based on mutual trust, respect and partnership among faculty, staff and students.

We accomplish our mission within the context of the mission, vision and policies of the Texas Tech University Health Sciences Center and its Board of Regents.

SOAHS Milestones

1981 - 67th Texas Legislature approves funding for School
1983 - First students accepted (19)
1985 - Full Accreditation received for programs in Physical Therapy, Occupational Therapy, Medical Technology
1991 - Emergency Medical Services program added
1993 - Department of Communication Disorders transferred from TTU, where it had existed since 1928
1994 - Expansion of PT and OT programs to Amarillo and Odessa with extensive reliance on HealthNet
- Expansion of PT program from B.S. to M.P.T.
1999 - Addition of Physician Assistant Program at Midland
- Expansion of OT program from B.S. to M.O.T.
- Approval of B.S., Emergency Medical System Management Program

2000 - Addition of Masters of Athletic Training Program
- Addition of Masters of Vocational Rehabilitation Program
- Addition of B.S. in Emergency Medical Systems Management
- Expansion of Physician Assistant Program from B.S. to M.P.A.S.
- Relocation of Department of Communication Disorders to TTUHSC facilities
- Relocation of SOAH-Odessa to permanent facilities at TTUHSC-Odessa
- Approval of Clinical Doctorate in Audiology (Au.D.)

2001 - Relocation of SOAH-Amarillo to permanent facility
- Completion of Physician Assistant Program permanent facility
- Approval of Center for Brain Mapping and Cortical Studies

2002 - Approval / addition of "first-in-nation" M.S., Molecular Pathology (M.S., M.P.)
- Approval / addition of M.S. in Rehabilitation Sciences (M.S., R.S.)
- Approval / addition of B.S. in Clinical Support Services Management (B.S., C.S.S.M.)
- Approval of Center for Rehabilitation Assessment

2003 - Approval of School name change to "Allied Health Sciences"
- Department name changes to Department of Laboratory Sciences and Primary Care, Department of Speech, Language and Hearing Sciences

2004 - Approval / addition of Ph.D., Communication Sciences and Disorders
- Approval / addition of B.S., Health Science
- Approval of program name changes; Vocational Rehabilitation to Rehabilitation Counseling; CSSM to Clinical Services Management (C.S.M); MSRS to Clinical Practice Management (C.P.M.)

2005 - Approval / addition of Department of Clinic Administration and Rehabilitation Counseling

2007 - Expansion of Physical Therapy From masters (M.P.T.) to clinical entry-level doctorate (D.P.T.)
- CSM program expands to provide a specialty track in Long Term Care Administration with approval from the Texas Department of Aging and Disabilities.

2008 - The position of Director of Admissions and Student Affairs, becomes the Assistant Dean for Admissions and Student Affairs.
- THECB grants SOAHS "planning authority" for Ph.D. in Rehabilitation Science.
- The Doctorate of Physical Therapy (D.P.T.) is implemented with enrollment of its first cohort of students.

2009 - Approval/addition of Ph.D. Rehabilitation Sciences

Accreditation

The Texas Tech University Health Sciences Center is accredited by the Commission on Colleges of the Southern Association of Colleges and Schools to award baccalaureate, masters, doctoral, and professional degrees. Contact the Commission on Colleges at 1866 Southern Lane, Decatur, Georgia 30033-4097 or call 404-679-4500 for questions about the accreditation of the Texas Tech University Health Sciences Center. The Commission should be contacted only if there is evidence that appears to support the institution's significant non-compliance with a requirement or standard.

General Policies and Procedures

Program Structure

The general format for TTUHSC, School of Allied Health Sciences programs vary. Please refer to specific program descriptions for requirements.

Core Curriculum Requirement

Students who will be earning their first baccalaureate degree from the Texas Tech University Health Sciences Center must satisfy the coursework requirements of the TTUHSC Core Curriculum.

This base of general knowledge provides students with a foundation in the natural and applied sciences, social sciences, mathematics, humanities, visual and performing arts, and the tools of language and thought. The TTUHSC Core Curriculum complies with 1997 Texas legislation that requires each state-supported institution to establish a core curriculum that encompasses "basic intellectual competencies in . . . reading, writing, speaking, listening, critical thinking, and computer literacy.[1] "

These courses or their equivalents may be taken at any regionally accredited college or university and should be completed with a grade of "C" or higher before enrolling at TTUHSC. **Students should choose only Core Curriculum courses that satisfy the requirements of their particular TTUHSC degree program,** as different core courses may be required by different programs.

The TTUHSC Core Curriculum comprises 42 credit hours of course work as stipulated by the Texas Higher Education Coordinating Board.[2]

1 http://www.thecb.state.tx.us/AAR/UndergraduateEd/fos_assumpdef.cfm

2 http://info.sos.state.tx.us/fids/19_0004_0028-1.html

TTUHSC Core Curriculum	
Communication	
* English 1301 Composition I	3 hours
* English 1302 Composition II	3 hours
Mathematics	
Courses with prefix MATH	3 hours
Natural Sciences	
Courses wiht prefixes BIOL, CHEM, GEOL, PHYS, or other natural sciences	6 hours
Visual and Performing Arts	
Any art, music, drama, or theatre arts course	3 hours
Humanities	
Any literature, philosophy, modern or classical language/literature, or cultural studies course	3 hours
Social and Behavioral Sciences	
*HIST 1301 United States History I	3 hours
*HIST 1302 United States History II	3 hours
(Students may substitute 3 credit hours of Texas History for 3 credits of United States History)	
*GOVT 2301 American Government I	3 hours
*GOVT 2302 American Government II	3 hours
Any psychology, sociology, or anthropology course	3 hours
Core Curriculum Electives	
Chosen from the fields of study listed above	6 hours

**Course numbers listed are based on the Texas Common Course Numbering System (TCCNS). Check with your academic institution to verify the course number that corresponds with the TCCNS number.*

Transfer of Credits

The School of Allied Health Sciences will accept transfer hours from fully accredited U.S. two year colleges and universities. The School traditionally accepts 66 transfer hours; however, additional hours may be accepted upon program approval.

Second Bachelor's Degree

No second bachelor's degree is conferred until the candidate has completed at least 24 semester hours—exclusive of credit by examination—in addition to the courses counted toward the first bachelor's degree. A second bachelor's degree sought by a student who did not graduate from a public Texas university must include the required Core Curriculum.

Course Drop Limits

Under section 51.907 of the Texas Education Code, "an institution of higher education may not permit a student to drop more than six courses, including any course a transfer student has dropped at another institution of higher education".

This statute was enacted by the State of Texas in spring 2007 and applies to students who enroll in a public institution of higher education (in the State of Texas) as first-time freshmen in fall 2007 or later.

Any course that a student drops is counted toward the six-course limit if (1) the student was able to drop the course without receiving a grade or incurring an academic penalty; (2) the student's transcript indicates or will indicate that the student was enrolled in the course; (3) the student is not dropping the course in order to withdraw from the institution. Exemptions for good cause could allow a student to drop a course without having it counted toward this limit, but it is the responsibility of the student to establish that good cause.

Contact the SOAHS Office of Admissions and Student Affairs personnel for more information before you drop a course.

Any student affected by this statute that has attended or plans to attend another institution of higher education (in the State of Texas) should become familiar with that institution's policies on dropping courses.

Credit for Core Requirements Taken at Another Institution

In accordance with the rules mandated by the Texas Legislature concerning the transfer of core curriculum: "If a student successfully completes the 42 semester credit hour core curriculum at an institution of higher education, that block of courses may be transferred to any other institution of higher education and must be substituted for the receiving institution's core curriculum. A student shall receive academic credit for each of the courses transferred and may not be required to take additional core curriculum course at the receiving institution unless the board has approved a larger core curriculum at that institution." (Section 5.402, d)

Credit for Educational Courses Completed in the Armed Forces

Credit may be gained for formal service school course completed in the armed services after evaluation of official documents by the TTUSHC Program Director. The Program Director, in conjunction with the TTUHSC Office of Admissions and Student Affairs will decide if credit awarded for such courses will be applied toward degree requirements.

Applying for Admission

Students admitted to Texas Tech University should not consider themselves also admitted to the School of Allied Health Sciences. For admission to any School of Allied Health Sciences program, the online application must be completed and submitted by the program deadline. Each program has its own applicant pool, from which the most qualified students are chosen for an admission review. Those students who best meet the stated qualifications and prerequisites of the individual programs will be accepted as students of TTUHSC and the School of Allied Health Sciences. Students who successfully complete the program will receive one of the following degrees from the Texas Tech University Health Sciences Center: a Bachelor of Science in Clinical Laboratory Science, Speech, Language and Hearing Sciences or Clinical Services Management; a Master of Athletic Training, a Master of Science in Speech-Language Pathology, a Master of Science in Molecular Pathology, a Master of Occupational Therapy, a Master of Physician Assistant Studies, a Master of Physical Therapy, a Master of Science in Clinical Practice Management, a Master of Rehabilitation Counseling; a Doctor of Audiology, a Doctor of Physical Therpy, a Doctor of Science in Physical Therapy, or a Ph.D. in Communication Sciences and Disorders or Rehabilitation Sciences. After graduation, a certification or licensure examination may be required.

Deadlines for application to the individual programs are:

TRADITIONAL PROGRAMS

Athletic Training
- Early Admission . . . . . October 15
- Traditional Admission . . . . . February 1

Audiology
- Early Admission . . . . . November 1
- Traditional Admission . . . . . February 1

Clinical Laboratory Science (Lubbock Campus) . . . . . March 1

Communication Sciences and Disorders (Ph.D.)
- Fall Semester . . . . . April 31
- Spring Semester . . . . . October 15

Molecular Pathology . . . . . March 1

Occupational Therapy
- Early Admission . . . . . October 15
- Traditional Admission . . . . . January 15

Physician Assistant . . . . . December 1

Physical Therapy (D.P.T.)
- Early Admission . . . . . September 15
- Traditional Admission . . . . . January 15

Rehabilitation Sciences (Ph.D.)
- Summer or Fall Semesters . . . . . February 1

Speech-Language Pathology
- Early Admission . . . . . November 1
- Traditional Admission . . . . . February 1

Speech, Language and Hearing Sciences (Undergraduate) . . . . . March 1

DISTANCE PROGRAMS

Clinical Laboratory Science (Second Degree and Certificate Programs)
Fall Semester . . . . . March 1
Clinical Services Management
Summer Semester . . . . . May 1
Fall Semester . . . . . August 1
Spring Semester . . . . . December 1
Clinical Practice Management
Summer Semester . . . . . May 1
Fall Semester . . . . . August 1
Spring Semester . . . . . December 1
Physical Therapy (Sc.D.)
Summer Semester . . . . . March 15
Transitional Doctor of Physical Therapy
Fall Semester . . . . . July 1
Spring Semester . . . . . November 1
Summer Semester . . . . . March 1
Rehabilitation Counseling
Fall Semester . . . . . June 1
Spring Semester . . . . . October 1

Qualifying for Admission

A student who wishes to enroll in the School of Allied Health Sciences must fulfill the general admissions criteria contained in this catalog, as well as the specific criteria of each program. Information or applications to any Allied Health Sciences program may be accessed via the Texas Tech University Health Sciences Center, School of Allied Health Sciences' web site www.ttuhsc.edu/sah.

Expectations of the Student

Students studying in the School of Allied Health Sciences must complete the professional curriculum within the prescribed school and departmental academic and calendar guidelines. Allied Health Sciences students are required to observe departmental, school, and institutional regulations and requirements. Allied Health Sciences students are expected to maintain a professional attitude toward the patients to whom they will provide healthcare, and toward the colleagues with whom they learn and work. Class attendance in Allied Health Sciences programs is mandatory. Only the specific course instructor can excuse absences. Other policies concerning departmental expectations of Allied Health Sciences students are contained in the student handbooks of the respective departments. Students will be held responsible for both the information contained in this catalog and in the departmental handbooks. In addition, students are expected to abide by all stated school or departmental policies and regulations.

Student Organizations

TTUHSC and the School of Allied Health Sciences offer a variety of student organizations. The School sponsors a chapter of Alpha Eta, the national honorary society in Allied Health Sciences, for students of the School who have distinguished themselves academically. Each department within the School of Allied Health Sciences has a student group organized for student support and participation in professional activities specific to the department. These organizations are: Pi Theta Epsilon Honorary; Student Occupational Therapy Association (SOTA); Athletic Training Student Association (ATSA); Student Physical Therapy Association (SPTA); Clinical Laboratory Science Student Association (CLSSA); Student Academy of Audiology (SAA); and the National Association for Doctors of Audiology (NAFDA). For more information concerning organizations open to students at TTUHSC, or to registration a new organization, please contact the Office of Student Services.

Student Liability

An essential part of allied health sciences education is the clinical experience. Students in all departments of the School of Allied Health Sciences are placed in clinical settings outside the institution. Because allied health sciences students will practice patient care under the supervision of graduate professionals, students are required to purchase liability insurance coverage. A nominal yearly charge is included in student fees paid at registration.

Student Healthcare

Students who pay the Medical Services Fee and are enrolled in the School of Allied Health Sciences are eligible to receive healthcare through the Department of Family Medicine at TTUHSC. However, services may vary from campus to campus. Information concerning student health services can be obtained from the TTUHSC Student Services Office.

Student Hospitalization Insurance Coverage

Students are recommended to have adequate medical/hospitalization insurance coverage while enrolled as a student in the School of Allied Health Sciences. It is the student's responsibility to obtain and maintain medical/hospitalization insurance through the provider of their choice. TTUHSC offers such coverage. Students should contact the TTUHSC Student Services Office for details.

Immunizations

Students in the School of Allied Health Sciences born on or after January 1, 1957, must have had the following immunizations:

- Tetanus, Diphtheria Pertussis (Tdap)
- Polio Vaccine (at anytime in the past)
- Measles-Mumps-Rubella (since 1980)

- Hepatitis B Series
- PPD-TB Skin Test (within 1 year of matriculation date, must be renewed annually) Tine Test is not sufficient.
- Varicella titer may be required for some programs.

It is the student's responsibility to obtain and maintain proof of all required immunizations. The cost of immunizations is also the student's responsibility.

Leave of Absence

In extreme circumstances it may be necessary for a student to be absent from class for an extended time. The School of Allied Health Sciences may grant a leave with the approval of the department chair and the consent of the Dean. For information concerning a leave of absence, contact the School of Allied Health Sciences Office of Admissions and Student Affairs.

TSI Requirements

The Texas Success Initiative (TSI) has replaced the Texas Academic Skills Program (TASP). Under the Texas Success Initiative, any student who is not exempt is required to take one of the following tests to assess basic skills in the areas of reading, writing, and mathematics: THEA, Accuplacer, Compass, or Asset. Students may be exempt if they have high ACT, SAT, or TAKS test scores or have earned an associate's or baccalaureate degree (www.reg.ttu.edu gives other exemptions) at an accredited Texas public institution of higher education or from a regionally accredited out of state institution. Students may test with Accuplacer through Academic Testing Services, Room 242 West Hall, (806) 742-3671. Students will need to present their driver's license or passport for identification purposes. Once tested, students must submit their test scores to the TSI Compliance Office, 116 West Hall. A practice Accuplacer test can be taken at the Web site listed above. For THEA test registration or to take a practice THEA test, go to www.thea.nesinc.com. Students who have tested but not attained the minimum scores on all three sections of the test are required to obtain TSI advising before registration and enroll continuously in formal skills development through the TSI Basic Skills Office, 72 Holden Hall, 806.742.3242. To ask questions about your status with respect to the Texas Success Initiative, contact the TSI Compliance Office at 806.742.1183, ext. 248.

Alcohol/Drug Prevention Education and Prevention

Consistent with its mission, the School of Allied Health Sciences and TTUHSC will enforce the provisions of the "Texas Controlled Substance Act" and the "Texas Dangerous Drugs Act." The School of Allied Health Sciences and TTUHSC are committed to helping students in health professions make responsible and informed decisions regarding the misuse of drugs and alcohol. The School encourages all students to make use of the education programs offered by the Counseling Center at Texas Tech University.

Criminal Background Check

Students enrolled in clinical preceptorships or rotations will require a criminal background check. Students will be required to sign a consent for release of information for the criminal background check.

Tobacco-Free Environment

TTUHSC prohibits tobacco use in a TTUHSC facility or anywhere on the grounds of any TTUHSC facility to include a leased facility/space. Violations of this policy are subject to disciplinary action as stipulated in HSC Operating Policy and Procedure 70.31, as appropriate. For more information regarding the Tobacco-Free Environment or the Tobacco Intervention Program please visit the TTUHSC web site at www.ttuhsc.edu.

Registration of Convicted Sex Offenders

Senate Bill 871 passed in the recent regular Texas Legislative Session made changes to Chapter 62, Code of Criminal Procedure, and now requires that all sex offenders register with local law enforcement authorities. Those who intend to be students or attend classes on or at any campus of the Texas Tech University System are required to register with the campus police department in accordance with article 62.064 of the Texas Code of Criminal Procedure within seven (7) days of beginning school. In addition, all such sex offenders who intend to volunteer, work, or carry on a vocation (including full-tine or part-time employees and employees of outside contractors) on any campus of Texas Tech University System for a consecutive period exceeding fourteen (14) days or an aggregative period exceeding thirty (30) days in a calendar year are required to register with the campus police department within seven (7) days of beginning work on any campus of the Texas Tech University System. In addition, all such sex offenders are required to notify campus police within seven (7) days of terminating attendance or work on any campus of the Texas Tech University System. All such sex offenders who are currently students, employees, volunteers, or contractor employees must register with campus police. Failure to register, as required, may subject such individuals to criminal penalties. Questions about this new requirement should be addressed to the TTU Police Department, 2901 4th St., Lubbock, TX 79409, (806) 742-3931.

Withdrawal from the School of Allied Health Sciences

A student who wishes to withdraw from the School of Allied Health Sciences must contact the Office of Admissions and Student Affairs to receive an Official Withdrawal Form. This form must be initialed by faculty or staff from specific areas within the Health Sciences Center. After the withdrawal form is completed, it must be returned to the Office of Admissions and Student Affairs for processing. Students who fail to complete this self-initiated withdrawal process within 5 class days will be subject to administrative withdrawal and/or dismissal from the School of Allied Health Sciences.

Students with Disabilities

It is the policy of the School of Allied Health Sciences to conduct educational programs in a place and manner accessible to individuals with disabilities, and to make reasonable modifications and accommodations necessary to achieve this purpose. Students who need special accommodations should be proactive and contact TTUHSC Student Services, (806) 743.2300, immediately after accepting a class position. The student will be asked to complete an application requesting accommodation and to supply documentation necessary to support the application.

Student Records

The School of Allied Health Sciences conforms to the guidelines set forth in the Family Educational Rights and Privacy Act of 1974, and the Texas Open Records Act. Students may limit public availability of personal and demographic information by making this request to the TTUHSC Registrar.

Student Debts

The School of Allied Health Sciences and TTUHSC will not be responsible for debts incurred by students or student organizations, nor will the School or TTUHSC assume the roles of collecting student debts or serve as arbitrator between students and creditors.

Change of Address

Students are required to maintain current contact information by making changes on their portal at http://portal.texastech.edu. All correspondence, including financial aid refund checks, will be mailed to the address provided by the student.

Admission Policies and Requirements

Admission Policy

Applicants for all programs in the School will be reviewed on an individualized and holistic basis that takes into account each applicant's demonstrated academic ability; commitment to service; potential for success in and contribution to the profession; and potential for contribution to the overall student-body diversity of the class and the School. Admissions criteria generally will include a consideration of prerequisite course grade-point-average (GPA); overall GPA; Graduate Record Examination (GRE) scores (where applicable); personal statement or essay; letters of recommendation; honors and awards received; extra curricular and community service activities; and, where applicable, the results of the personal interview. Admissions requirements and weights assigned to program-specific criteria will be developed for each program.

Applicants to the Professional Programs

Applicants to the professional programs must have completed all prerequisite courses and met all other conditions of admission before entering the first professional program course. Acceptable minimum grade point averages vary with program and are stated in the appropriate section of this catalog. A personal interview may be required of each applicant.

Prerequisite Course Credits

All questions of course acceptability must be referred to the academic advisors in the School of Allied Health Sciences Office of Admissions and Student Affairs. All college level, non-vocational courses completed at regionally accredited colleges and universities (not including trade or technical schools) will be evaluated for acceptance of prerequisite course credit by the School of Allied Health Sciences Office of Admissions and Student Affairs. In general, credit hours with a grade of *C* or higher will be accepted. However, evaluation of specific courses is required and decisions made by the program are final. Each student will be notified of acceptance of prerequisite courses. If the required science courses were completed seven or more years prior to admission into the School of Allied Health Sciences, the student may be required to retake courses.

Readmission

A former student who seeks to be readmitted to a program in the School of Allied Health Sciences must have withdrawn in good academic standing and meet all current admissions and degree requirements for the semester of readmission.

Credit By Examination for the Prerequisite Courses

The School of Allied Health Sciences encourages students to use previous learning experiences. Students will be given the opportunity to receive credit by examination in courses where proficiency may be determined by examination. Students may demonstrate proficiency in certain subject areas through various programs. A grade of Pass (P) will be given on the examination, but the grade will not be considered in determining grade-point averages. Course credit earned by examination is recorded by the TTUHSC Registrar on the student's transcript. Course credit by examination may not be used to satisfy the 30- hour minimum residence credit requirement for graduation. Credit by examination must be completed before the course begins or within the first twelve class days of the course. Credit by examination does not waive tuition and fees for the course.

A student may earn prerequisite course credit by examination by three separate programs. These include:

1. Specified College Entrance Examination Board (CEEB) Achievement Tests
2. CEEB Advanced Placement Examinations, which are part of the Advanced Placement programs (AP) available in a limited number of secondary schools
3. Specified subject examinations of the CEEB College Level Examination Program (CLEP)

Tests on courses in the credit-by-examination program which are prerequisites for higher level courses must be completed and scored before registering for advanced courses. Students may not receive credit by examination for a course if they have already passed a more advanced course in the same subject area. The deadline for registering to take the CEEB Achievement and CLEP examinations either at Texas Tech University or at a national testing center is typically 4-6 weeks before the scheduled test date. Generally, test results or scores are mailed 4-5 weeks after the test date. Information regarding test dates and fees for national standardized examinations are available from the Testing and Evaluation Division at Texas Tech University. It is the student's responsibility to request that his or her CEEB test scores be sent to the School of Allied Health Sciences. Information concerning each of the testing programs follows.

Credit for CEEB Achievement Tests

The CEEB achievement tests are part of the CEEB Admissions Testing Program. Each year there are several national administrations of the CEEB Achievement Tests. Students should plan to take the specified tests at national testing centers during their senior year of high school at an early testing date in order that scores may be reported by June. In addition to the national administration, there are limited administrations of the Achievement Tests recognized for credit by Texas Tech University during the Freshman Orientation Conferences held on the Texas Tech campus each summer. Further information concerning

the CEEB Achievement Tests may be obtained from your high school counselor or principal, the College Entrance Examination Board (Box 592, Princeton, NJ 08540), or the Testing and Evaluation Division of Texas Tech University.

Credit for CEEB Advanced Placement Program Examinations (APP)

The Advanced Placement Program Examination is the final examination for a nationally standardized course offered in a limited number of secondary schools under the auspices of the CEEB Advanced Placement Program. The objective of the APP is to allow students to begin work toward college credit while still in high school. Students should check with their high school counselor or principal as to the availability of the APP examinations in their school. The APP is offered once a year during May at participating high schools.

Credit for CEEB College Level Examination Program Examinations (CLEP)
Under the College Level Examination Program, the School of Allied Health Sciences will award credit only for specified examinations. As with the other CEEB testing programs, a student may attempt a CLEP examination at a national CLEP testing center before enrolling and have the scores reported to the School of Allied Health Sciences. These examinations are offered on the Texas Tech University campus during Freshman Orientation held each summer, several times each year to students currently enrolled, and monthly at national CLEP test centers. Further information concerning the CLEP tests may be obtained by contacting College Level Examination Program (Box 1821, Princeton, NJ 08540), or the Testing and Evaluation Division of Texas Tech University.

Advanced Placement

Individuals who have completed an educational program in medical laboratory technology and are certified by a nationally recognized certification agency may be eligible to receive credit for some junior level courses in Clinical Laboratory Science. Determination for such credit will be made by the department chair. Students seeking to take Credit by Examination must have been officially accepted in the School of Allied Health Sciences, and the prerequisites for courses must be met prior to taking the examination for credit. The student must file a petition with the program director at least 30 days prior to taking the examination. The program will administer the examination no later than one week prior to the semester in which the challenged course is offered. Credit (CR) or no credit (NCR) will be reported to the Registrar's Office and entered on the official transcript. Unsuccessful students (NCR) will be required to enroll in the course at the first opportunity. A student may challenge a course only once. The fee for this examination is $50.00. The Department of Speech, Language and Hearing Sciences does not offer credit by examination.

Applicant Pool

Applicants will be considered for admission only when completed application forms and appropriate supporting documents have been received. All applicants are carefully evaluated by the respective program admissions committees concerning qualifications and potential for successful completion of a professional curriculum. School of Allied Health Sciences departments also may waive required courses based on experiential learning.

International Students

Transcripts

Applicants to all programs must have transcripts from any international college or university evaluated by a Foreign Transcript Evaluation Service. The evaluation must be a course-by-course evaluation of all academic work completed by the applicant. The Office of Admissions can provide a list of acceptable evaluation agencies.

TOEFL/IELTS

Students whose native language is not English must complete an English language proficiency exam. The official Test of English as a Foreign Language (TOEFL) scores or official International English Language Testing Service (IELTS) scores, when applicable. Minimum acceptable scores for the TOEFL are 213 on the computer-based test, 79 on the internet-based test, and 550 on the paper test. The minimum acceptable IELTS score is 6.5. This test is waived only for graduates of U.S. universities or universities in countries in which the native language is English.

Official TOEFL score reports or official IELTS results are required from international applicants unless the student graduated from a high school within the United States with a minimum of 2 years attendance, or has attended a college or University in the United States for a minimum of 2 years

TSI Requirement

Documentation of successful completion of the TSI (Texas Success Initiative) is required.

ADMISSIONS CHECKLIST

- ✓ Be certain you will be able to meet all admission requirements by the class starting date.
- ✓ Application materials may be accessed via the Texas Tech University Health Sciences Center, School of Allied Health Sciences' web site at www.ttuhsc.edu/sah.
- ✓ Complete all admission materials and mail to the Texas Tech University Health Sciences Center, Office of the Registrar at 3601 4th Street, Mail Stop 8310, Lubbock, Texas, 79430.
- ✓ Have official transcripts of all college coursework sent to the above address. Make certain that the transcripts are mailed to the above address only. Do not send transcripts to Texas Tech University; this will delay processing of your application. It is the student's responsibility, before the admissions deadline for each program, to see that updated transcripts containing the applicant's most recently completed coursework have been received.
- ✓ Have documentation of successful completion of the TSI sent to the Texas Tech University Health Sciences Center, Office of the Registrar, if it is not included with transcripts.
- ✓ It is the student's responsibility to confirm that all necessary application materials have been received before the closing date for receiving application materials.

NOTE: All applicants with completed applications will be notified in writing as to the final status of their application after review by program admissions committees. Interviews and additional tests may be required before final admission decisions are reached.

Financial Information

Financial Aid

Grants and loans are available through the TTUHSC Financial Aid Office. All students interested in receiving grants and/or loans must complete a Free Application for Federal Student Aid (FAFSA) and send it to the TTUHSC Financial Aid Office. On-line FAFSA applications are available at www.fafsa.ed.gov.

NOTE: Financial aid offers from other colleges and universities, including TTU, are not transferable to TTUHSC. Separate financial aid applications are required for TTUHSC. For further information regarding financial aid, please contact:

TTUHSC Financial Aid Office
3601 4th Street, Suite 2C 400
Lubbock, TX 79430
806-743-3025
www.ttuhsc.edu/financialaid

Scholarships

The School of Allied Health Sciences has scholarships dedicated to currently enrolled students. In addition, there are general scholarships funded by private foundations and organizations. Scholarships are administered by the School of Allied Health Sciences Office of Admissions and Student Affairs. Scholarships given to incoming students will be based on the admissions application including all information that is provided by that application and the application process (i.e. grade point average, GRE scores (if applicable), interview, written essay, extracurricular/volunteer activities.)

Tuition and Fees

Texas Tech University Health Sciences Center reserves the right, without notice in this catalog, to amend, add to, or otherwise alter any or all fees, rates or other charges set forth herein by action of the Board of Regents of Texas Tech University or the Texas State Legislature, as the case may be.

Texas residents will be charged tuition at a rate of $150 per semester credit hour. Non-resident and foreign students will be charged tuition at a rate of $427 per semester credit hour. Both resident and non-resident students enrolled in graduate programs will be charged an additional $50 per semester credit hour.

To be granted status as a resident of Texas for educational purposes, proper documentation must be on file in the TTUHSC Office of the Registrar. Each student will be required to complete a written residency oath upon applying. For detailed information regarding residency status, contact the TTUHSC, Office of the Registrar. Foreign students seeking entry into the School of Allied Health Sciences must be processed through the International Admissions Counselor at Texas Tech University.

Fee Table*

Fall or Spring Semester

Full-time student enrolled in 15 hours

Tuition

Resident Undergraduate	$2,250.00
Resident Graduate	$3,000.00
Non Resident Undergraduate	$6,405.00
Non Resident Graduate	$7,155.00
Student Services Fee	$132.00
Placement Guarantee Fee (All 1st year students, non-refundable)	$50.00
Student Malpractice Insurance Fee ($61 for PA students)	$14.50
Microscope Usage Fee (CLS Juniors and Seniors annually)	$50.00
Medical Services Fee	$70.00
Recreation Center Fee	$75.00
Graduation Fee ($50 for graduate programs)	$35.00
Identification Card Fee	$5.00
Informational Technology Fee	$150.00
Student Athletic Fee	$52.00
Record Processing Fee	$5.00
Synergistic Center Fee (Student Union Fee)	$5.00

Total Tuition and Fees for Semester (estimate)

Resident Undergraduate	$2,858.50
Resident Graduate	$3,558.50
Non-Resident Undergraduate	$7,013.50
Non-Resident Graduate	$7,713.50

Summer Session

Duration of 10 weeks or longer
Full-time student enrolled in 7 hours
Tuition

Resident Undergraduate	$1,050.00
Resident Graduate	$1,400.00
Non-Resident Undergraduate	$2,989.00
Non-Resident Graduate	$3,339.00
SAH Anatomy Fee (AT, OT, PA & PT only)	$200.00
Student Services Fee	$132.00
Medical Services Fee	$70.00
Recreation Center Fee	$75.00
Identification Card Fee	$5.00
Information Technology Fee	$70.00
Record Processing Fee	$5.00
Synergistic Center Fee (Student Union Fee)	$5.00

Total Tuition and Fees for Summer Semester (estimate)

Resident Undergraduate	$1,612.00
Resident Graduate	$1,962.00
Non-Resident Undergraduate	$3,551.00
Non-Resident Graduate	$3,901.00

**These fees may not represent all costs incurred to students. Many courses within each program have course fees that will be applied to tuition as necessary. Students on regional campuses get appropriate fees waived.*

Distance Learning Tuition and Fees

Clinical Laboratory Science (Secord Degree & Certificate)

Out of state students enrolled in a distance learning program pay a flat fee of $250 per credit hour, which is $750 per three hour course. Texas residents will be charged tuition at a rate of $150 per semester credit hour, and appropriate fees.

Clinical Services Management

Out of state students enrolled in a distance learning program pay a flat fee of $250 per credit hour, which is $750 per three hour course. Texas residents pay tuition of $150 per credit hour, which is $450 per three hour course, and appropriate fees.

Clinical Practice Management

Out of state students enrolled in a distance learning program pay a flat fee of $250 per credit hour, which is $750 per three hour course. Texas residents pay tuition of $200 per credit hour, which is $600 per three hour course, and appropriate fees.

Rehabilitation Counseling and Doctor of Science in Physical Therapy

Out of state students enrolled in a distance learning program pay a flat fee of $300 per credit hour, which is $900 per three hour course. Texas residents pay tuition of $200 per credit hour, which is $600 per three hour course, and appropriate fees.

Refund of Tuition and Fees

Texas Education Code, Section 54.006, provides the amount of tuition and fees to be refunded to students who drop courses or withdraw from the institution. Students who drop a course within the first twelve days of a fall or spring semester or within the first four days of a summer term will receive a full refund of tuition and fees applicable to the course being dropped. Students who withdraw from the institution (zero semester credit hours) will receive a percentage of the tuition and mandatory fees collected for each course based on their official withdrawal date. Class day count is based on the official institution calendar for the School of Allied Health Sciences, not the individual course dates.

Refund Formula

Fall, Spring , & Summer (Duration of 10 weeks or longer) Semester withdrawal:

Prior to the first class day . . . . . 100 percent
During the first five class days . . . . . 80 percent
During the second five class days . . . . . 70 percent
During the third five class days. . . . . 50 percent
During the fourth five class days . . . . . 25 percent
After the fourth five class days . . . . . none

Summer Semester (More than 5 weeks but less than 10 weeks in duration) withdrawal:

Prior to the first class day . . . . . 100 percent
During the first, second or third class day . . . . . 80 percent
During the fourth, fifth, or sixth class day . . . . . 50 percent
Seventh day of class and thereafter . . . . . none

Federal Refund Formula

Students who are receiving Title IV Financial Aid funds, may be required to return a portion of these funds at the time of their withdrawal from the institution.

Text Books and Supplies

The cost of books and supplies will vary with the different curricula. School of Allied Health Sciences students can expect to pay approximately $300-$500 per semester for books and supplies. Some professional students will also be required to purchase lab coats and accessories for course work at TTUHSC.

Department of Speech, Language, and Hearing Sciences

Department of Speech, Language and Hearing Sciences

DEPARTMENT OF SPEECH, LANGUAGE AND HEARING SCIENCES

The Field of Speech, Language and Hearing Sciences

A communication disorder is anything that interferes with speech, language, or hearing. People with communication disorders comprise the largest population of Americans with disabilities. One in ten Americans has some kind of communication disorder. To meet the needs of these people, speech-language pathologists and audiologists utilize behavioral, cognitive, physiologic, and technological procedures to assess and treat speech, language, swallowing, hearing, and balance problems. Speech-language pathologists and audiologists employ an interdisciplinary approach to treatment and work closely with a full spectrum of professionals to treat the patient's communicative needs.

Speech-language pathologists specialize in prevention, identification, evaluation, treatment, and rehabilitation of speech, language, and swallowing disorders. Their work involves conducting research; treating numerous communication disorders, including children with speech-language disorders, people who stutter, stroke survivors, and persons who have swallowing problems; and instructing various others, such as actors and singers, in the preservation of their voices. Audiologists assess and treat individuals who are challenged by hearing impairments or balance problems. They test and diagnose hearing disorders, prescribe and dispense hearing aids and assistive listening devices, help prevent hearing loss, and conduct research, among many other professional duties.

Four years of undergraduate education in the basic sciences are required. For Speech-Language Pathology, two years of graduate study followed by a Clinical Fellowship are required. The Doctor of Audiology degree is four years of graduate work, three in clinical coursework and one clinical externship year. Graduates of professional programs must pass national examinations before earning certification. Both speech-language pathologists and audiologists are required by most states to earn a master's or doctoral degree from a program accredited by the American Speech-Language-Hearing Association (ASHA). In most states a professional license is also required. For those interested in the scientific study of communication and its related disorders, a doctoral degree is generally required.

Department Description

The Department of Speech, Language and Hearing Sciences is the oldest such program in the entire Southwestern United States. It began at Texas Tech in 1928, and today it educates approximately 80 undergraduate students and 75 graduate students per year. The department offers study in four degree programs: Bachelor of Science (B.S.) in Speech, Language and Hearing Sciences; Master of Science (M.S.) in Speech-Language Pathology; Doctor of Audiology (Au.D.); and Doctor of Philosophy (Ph.D.) in Communication Sciences and Disorders. Students may specialize in either speech-language pathology or audiology at the graduate level. The academic programs are accredited by the Council on Academic Accreditation of the American Speech-Language-Hearing Association.

The programs are also recognized by the Texas State Board of Examiners for Speech-Language Pathology and Audiology.

Special features of the department include several research laboratories: the Speech Physiology Laboratory, the Psychoacoustics Laboratory, the Augmentative and Alternative Communication Laboratory, the Electrophysiology Laboratory, and the Center for Functional Brain Mapping and Cortical Studies. The Speech Physiology and Psychoacoustics Laboratories conduct research in the areas of speech acoustics, fluid mechanics, laryngeal kinematics, and speech perception. The Electrophysiology Laboratory is designed to investigate the physiologic and psychophysical properties of sound. The Augmentative and Alternative Communication Laboratory is equipped to investigate the special needs of nonspeaking patients using state-of-the-art technology.

The department sponsors chapters of the National Student Speech-Language-Hearing Association and the Student Academy of Audiology (SAA). Besides numerous community fund-raising events and scholarship drives, the student organizations conduct annual conferences which attract professionals from throughout the Southwest. Nationally and internationally recognized speakers spend time with students and other professionals discussing current topics in communication disorders and sciences.

The Speech-Language and Hearing Clinic serves as the primary clinical practica site for students in the department. Under direct faculty supervision, students provide clinical services to people in the local community, Texas Tech University and TTUHSC, as well as the entire West Texas and Eastern New Mexico areas. Additional practica sites are available through an externship program in hospitals, schools, rehabilitation institutes, private practices, and governmental offices.

Financial assistance may be available from the Office of Financial Aid at TTUHSC. The Department of Speech, Language and Hearing Sciences also offers limited financial assistance to highly qualified students on the basis of scholarship. Students interested in financial assistance through the department should file their requests after they have been accepted to the program.

Undergraduate Program in Speech, Language and Hearing Sciences

Admission to the Bachelor of Science Program

The preferred application deadline is March 1 of each year for the following fall class. Admission decisions are made by May 1. Class enrollment is limited. Admission requirements include (1) completion of the online application, (2) a minimum cumulative GPA of 2.75 on a 4.0 scale, (3) a grade of "C" or better in all prerequisite courses, and (4) proof of appropriate immunizations against infectious diseases. Provisional admission may be offered to applicants with a GPA of less than 2.75. Such applications will be reviewed on an individual basis. Students are required to adhere to all policies as outlined by the Department of Speech, Language and Hearing Sciences, the School of Allied Health Sciences, and Texas Tech University Health Sciences Center. Students also have specific rights as outlined in the student handbook.

Prerequisites

Prerequisite courses for the undergraduate program include the following, or their approved equivalents. These courses may be completed at any accredited college or university. The department reserves the right to change course requirements without notice.

Required Courses	**Credit Hours**
Communication:	9 hours
Technical Writing is required.	
Math:	6 hours
Statistics is required.	
Natural Science:	6-8 hours
At least one course in biological/life science (e.g. biology, human anatomy and physiology) and one in physical science (e.g. physics, chemistry) are required.	
Technology and Applied Science:	3-4 hours
An additional natural science can be used in place of this requirement.	
Humanities:	3 hours
Visual & Performing Arts:	3 hours
Social and Behavioral Science:	24 hours
U.S. History - 6 hours	
Political Science - 6 hours	
Individual or Group Behavior - 12 hours (Recommended course: COMS 2350 Introduction to Communication Disorders)	
Multicultural:	3 hours
General Electives:	variable hours
	Minimum Total - 66 hours

Department of Speech, Language and Hearing Sciences

Speech, Language and Hearing Sciences Curriculum

The following are the departmental course requirements. Academic policies regarding minimum grade performance are cited in the Student Handbook.

Sample Undergraduate Program

FIRST YEAR

Fall Semester Course		Credit Hours
AHSL 3219	Supervised Observation Lab: AUD	2
AHSL 3220	Supervised Observation Lab: SLP	2
AHSL 3427	Phonetics	4
AHSL 3422	Anatomy & Physiology	4
		Total hours = 12

Spring Semester Course		Credit Hours
AHSL 3221	Clinical Methods	2
AHSL 3321	Speech Science	3
AHSL 3322	Hearing Science	3
AHSL 3323	Language Development	3
AHSL 3442	Clinical Audiology	4
		Total hours = 15

SECOND YEAR

Fall Semester Course		Credit Hours
AHSL 3324	Language Disorders	3
AHSL 4380/90	Clinical Practicum: SLP/Audiology	2
AHSL 4426	Neural Bases of Speech & Language Disorders	4
AHSL 3426	Articulation & Phonological Disorders	4
AHSL 3325	Fluency Disorders (pre-SLP)	3
Or		
AHSL 4446	Diagnostic Audiology (pre-AuD)	4
		Total hours = 16-17

Spring Semester Course		Credit Hours
AHSL 4344	Multicultural Issues	3
AHSL 4280/90	Clinical Practicum: SLP/Audiology	2
AHSL 4410	Basic Sign Language for the Health Professions	4
AHSL 4427	Assessment Procedures in Speech-Language Pathology	4
		Total hours = 13

Course Descriptions

AHSL 3219 Supervised Observation Laboratory: AUD (2:2:0) A supervised observation of various audiometric procedures and patient types. Discussion of clinical protocols, assessment, and management for individuals with hearing disorders.

AHSL 3220 Supervised Observation Laboratory: SLP (2:2:0) A supervised observation of clinical assessment and management of individuals with speech and language disorders. May be repeated for credit.

AHSL 3221 Clinical Methods (2:2:0) A review of clinical methodologies used in speech-language pathology and audiology, including specific clinical activities, report writing, and professional development.

AHSL 3321 Speech Science (3:3:0) An introduction to the production, perception, and processing of speech, including acoustic phonetics.

AHSL 3322 Hearing Science (3:3:0) An introduction to the physics of sound, acoustics, and psychoacoustics.

AHSL 3323 Language Development (3:3:0) An introduction to current theories of language and language development, including methods of obtaining and analyzing language samples.

AHSL 3324 Language Disorders (3:3:0) An emphasis on language disorders across the lifespan. Topics include the nature and etiologies of language disorders, with an overview of the principles of treatment.

AHSL 3325 Fluency Disorders (3:3:0) An extensive review of current information on fluency disorders in children and adults, including clinical assessment and management strategies.

AHSL 3422 Anatomy & Physiology (4:3:1) A study of the anatomical and physiological aspects of speech and hearing in both normal and clinical populations.

AHSL 3426 Phonetics/Articulation and Phonological Disorders (4:3:1) The basic principles of assessment and treatment for children and adults with phonological and articulatory disorders. Includes lab for practice of advanced clinical transcription skills.

AHSL 3427 Phonetics (4:3:1) An introduction to production and classification of speech sounds; principles and theories of phonetics; emphasis on development of clinical transcription skills.

AHSL 3442 Clinical Audiology (4:3:1) An introduction to hearing assessment techniques and auditory disorders, with adaptation of testing for special

Department of Speech, Language and Hearing Sciences

populations such as infants, geriatrics, and different language backgrounds. The student will gain proficiency with pure-tone, speech, and impedance testing techniques.

AHSL 4280 Clinical Practicum: SLP (2) A supervised clinical assisting experience. May be repeated for credit.

AHSL 4290 Clinical Practicum: Audiology (2) A supervised clinical assisting experience. May be repeated for credit.

AHSL 4300 Senior Research Project (3) An individual study of a specific problem in one of the areas of speech, language or hearing disorders. Students are required, in advance of registration, to consult with the instructor and secure approval of the specific project to be pursued.

AHSL 4344 Multicultural Issues in Communication Disorders (3:3:0) Assessment and management of communication disorders in culturally and linguistically diverse populations. Topics include typical and disordered communication, and perspectives on clinical, theoretical, and research implications.

AHSL 4410 Basic Sign Language for the Health Professions (4:4:0) An intensive, introductory course in American Sign Language. Issues related to deaf culture and the use of signs in healthcare settings will be discussed.

AHSL 4426 Neural Bases of Speech and Language (4:3:1) An exposure to neuroanatomy and neurophysiology through individualized and interactive learning. This course provides strong foundations for future graduate courses in aphasia and motor speech disorders, as well as an understanding of neuroanatomy, neurophysiology, and neuropathologies of speech and language.

AHSL 4427 Assessment Procedures in Speech-Language Pathology (4:3:1) The development of competencies in the selection, use, and interpretation of a wide range of speech and language assessment procedures for children and adults from diverse etiologic, cultural, and ethnic groups.

AHSL 4446 Diagnostic Audiology (4:3:1) This course will present advanced diagnostic techniques for children and adults including those from diverse populations or with special needs.

Graduate Program in Speech-Language Pathology

Admission to the Speech-Language Pathology Program

Professional education includes two years of study beyond the baccalaureate level. The application deadline for the early admission cycle is November 1 and February 1 for the regular admission cycle. Early admission decisions are made by January 1; regular admission decisions by April 1. Class enrollment is limited each year. Admission requires (1) completion of the online application, (2) a cumulative GPA of 3.0 on a 4.0 scale, (3) a GPA of 3.0 on a 4.0 scale in undergraduate audiology and speech pathology courses, (4) demonstration of superior oral and written communication skills, (5) completion of a telephone interview with the Admissions Committee, (6) above-average scores on the verbal, quantitative, and analytical subtests of the Graduate Record Examination (GRE), (7) proof of appropriate immunizations against infectious diseases, (8) TOEFL or IELTS scores, if English is the second language, and (9) an earned baccalaureate degree or its equivalent in the area of speech, language and hearing sciences from an accredited institution. Provisional admission may be offered to applicants with a GPA of less than 3.0. Such applications will be reviewed on an individual basis.

Applicants who have earned undergraduate degrees in fields other than speech, language and hearing sciences must take one year (two semesters) of leveling course work.

Students are required to adhere to all policies as outlined by the Department of Speech, Language and Hearing Sciences, the School of Allied Health Sciences, and Texas Tech University Health Sciences Center. Students also have specific rights as outlined in the student handbook.

Speech-Language Pathology Curriculum

Students must maintain a GPA of 3.0 to maintain good academic standing. By the time of graduation, students are expected to have completed the academic and clinical requirements for professional certification by the American Speech-Language-Hearing Association (ASHA), and licensing by the Texas State Board of Examiners in Speech-Language Pathology and Audiology. Students are required to successfully pass a comprehensive written examination or successfully defend a formal thesis project under the supervision of a graduate faculty member in the Department of Speech, Language and Hearing Sciences.

Example Course Sequence

FIRST YEAR

Fall Semester Course		Credit Hours
AHSL 5100	Foundations	1
AHSL 5320	Research Design	3
AHSL 5463	Adult Language Assessment & Intervention	4
AHSL 5424	Pediatric Language Assessment & Intervention	4
AHSL 5381	Graduate Clinical Practicum I: SLP	3
		Total Hours = 15

Spring Semester Course		Credit Hours
AHSL 5100	Foundations	1
AHSL 5325	Childhood Speech Sound Disorders	3
AHSL 5330	Dysphagia	3
AHSL 5382	Graduate Clinical Practicum II: SLP	3
AHSL 5329	Fluency	3
AHSL 6000	Master's Thesis (optional)	1-3
		Total Hours =13-16

Summer Semester Course		Credit Hours
AHSL 5239	Evidence-Based Practice in Communication Disorders	2
AHSL 5383	Graduate Clinical Practicum III: SLP	3
AHSL 6000	Master's Thesis (optional)	1-3
		Total Hours = 5-8

SECOND YEAR

Fall Semester Course		Credit Hours
AHSL 5201	Speech Science: Clinical Applications	2
AHSL 5143	Aural Rehabilitation Lab	1
AHSL 5243	Aural Rehabilitation	2
AHSL 5328	Voice	3
AHSL 5384	Graduate Clinical Practicum IV: SLP	3
AHSL 5110	Capstone Course	1
Or		
AHSL 6000	Master's Thesis (optional)	1-3
		Total Hours = 12-14

Spring Semester Course		Credit Hours
AHSL 5362	Motor Speech Disorders	3
AHSL 5466	Augmentative & Alternative Communication	4
AHSL 5385	Graduate Clinical Practicum V: SLP	3
AHSL 6000	Master's Thesis (optional)	1-3
		Total Hours = 10-13

Course Descriptions

AHSL 5100 Foundations (1:1:0) A forum for the discussion of professional issues in communication disorders. May be repeated for credit.

AHSL 5110 Capstone Course (1:1:0) A comprehensive review of: the nature of human communication and swallowing processes; prevention, assessment, and intervention for communication and swallowing disorders; and research principles and professional issues.

AHSL 5143 Aural Rehabilitation Lab (1:0:1) This laboratory course will allow students the opportunity to obtain hands-on experiences in aural rehabilitation. Course will include hands-on experience related to the use, management, and troubleshooting of hearing aids and FM systems. Cochlear implants, vibrotactile devices, and assistive listening devices will also be introduced.

AHSL 5201 Speech Science: Clinical Applications (2:2:0) Review of basic concepts of acoustic and articulatory phonetics, with specific reference to their application to clinical populations in communication disorders. Selective literature review illustrating acoustic and physiologic analysis of speech disorders, and application of laboratory and clinical instrumentation for the analysis of disordered speech and language.

AHSL 5239 Evidence-Based Practice in Communication Disorders (2:2:0) This course is designed to prepare students for understanding and conducting research in speech and language science. Emphasis is placed on how to conduct a literature search and write a literature review. Students will learn how to present research findings at professional meetings and how to apply research findings in evidence-based practice.

AHSL 5243 Aural Rehabilitation (2:2:0) The study of aural habilitation and rehabilitation procedures, intervention techniques, and the use of amplification for hearing-impaired children and adults. Psychosocial issues of hearing loss will be discussed in relation to the hearing impairment as well as the cultural history of the patient.

AHSL 5310 Special Topics in Speech Pathology (3:3:0) Directed study for non-thesis candidates. May be repeated for credit.

AHSL 5320 Research Design (3:3:0) A summary of the basic concepts of science and research. Emphasis is placed on the nature of experimental designs and basic inferential statistical analyses, and the application of relevant research methodologies in clinical settings.

AHSL 5325 Childhood Speech Sound Disorders (3:3:0) Overview of normal speech acquisition and current approaches to assessment and management of pediatric speech sound disorders.

Department of Speech, Language and Hearing Sciences

AHSL 5328 Seminar in Voice Disorders (3:3:0) An advanced discussion of the etiology, diagnosis, and treatment of voice disorders.

AHSL 5329 Fluency Disorders (3:3:0) An extensive review of current information on fluency disorders in children and adults.

AHSL 5330 Dysphagia (3:3:0) A detailed study of the anatomy and physiology of normal and disordered swallowing patterns, with discussion of current diagnostic techniques and treatment alternatives.

AHSL 5362 Motor Speech Disorders (3:3:0) A study of the neurologic foundations of speech, speech disorders that can develop as a result of damage to the nervous system, and the ways in which motor speech disorders can be diagnosed and managed.

AHSL 5381-5385 Graduate Clinical Practicum: SLP (3:3:0) Supervised clinical practice in speech and/or language pathology.

AHSL 5424 Pediatric Language Assessment & Intervention (4:4:0) Comparison of typical and atypical language in children from infancy through adolescence. Assessment and management strategies for diverse populations, and varied service delivery models.

AHSL 5463 Adult Language Assessment & Intervention (4:3:1) Effects of normal aging on communication. Assessment and intervention models for acquired adult language disorders (e.g. aphasia, dementia, traumatic brain injury). Medical terminology and report writing will also be included.

AHSL 5466 Augmentative and Alternative Communication (4:4:0) A study of the emerging area of augmentative and alternative communication, including a perspective on how these alternative and augmentative systems fit within the broad area of communication development and disorders.

AHSL 6000 Master's Thesis (3) May be repeated for credit. Consent of instructor required.

For additional information concerning a career in speech-language pathology, contact the American Speech-Language-Hearing Association (ASHA) in Rockville, Maryland; or visit the Department of Speech, Language and Hearing Sciences at Texas Tech University Health Sciences Center.

Program in Audiology

Program Description

The program in audiology at the Texas Tech University Health Sciences Center, which is accredited by the American Speech-Language-Hearing Association (ASHA), offers comprehensive academic, research, and clinical experience in a wide variety of settings. A unique feature of the TTUHSC program is the diversity of the clinical and research experiences available. Students obtain clinical and/or research experience at: the TTUHSC Speech and Hearing Clinic, several community-based clinics, public school programs, local private practices, and other medical, rehabilitative, and educational facilities outside the Lubbock community. The Program also houses the Center for Functional Brain Mapping and Cortical Studies. The Center employs both electrophysiological and imaging methods to measure how the brain responds to sensory information. In these settings, students have the opportunity to explore state-of-the-art technology, instrumentation, and assessment/treatment procedures in audiology and communication sciences.

The department also sponsors a chapter of the Student Academy of Audiology (SAA). This national audiology student group sponsors several fund-raising events and a large regional conference that attracts professionals from throughout the Southwest. During these times, local and nationally recognized speakers spend individual time with the students discussing current clinical and research interests.

Admission to the Doctor of Audiology Program

Admission to the Doctor of Audiology (Au.D.) program is competitive and begins in February of each year for enrollment the following fall semester. Prospective students are urged to apply for admission as early as possible and to utilize the on-line application forms. Admission requirements include (1) completion of the online application, (2) a cumulative and major GPA of 3.0 on a 4.0 scale, (3) a grade of "C" or better in all coursework in your undergraduate major, (4) submission of GRE test scores (including verbal, quantitative, and analytic writing sections), (5) proof of appropriate immunizations against infectious diseases, and (6) TOEFL or IELTS scores, if English is the second language.

Provisional admission may be offered to applicants with a GPA of less than 3.0. Such applications will be reviewed on an individual basis. Students are required to adhere to all policies as outlined by the Department of Speech, Language and Hearing Sciences, the School of Allied Health Sciences and the Texas Tech University Health Sciences Center. Students also have specific rights as outlined in the student handbook. Undergraduate majors in the sciences, particularly the life sciences, are recommended for entrance into the Au.D. program.

Department of Speech, Language and Hearing Sciences

Audiology Curriculum

FIRST YEAR

Fall Semester Course		Credit Hours
AHSL 7442	Psychoacoustics and Auditory Perception	4
AHSL 7446	Diagnostic Audiology	4
AHSL 7340	Auditory Anatomy and Physiology	3
AHSL 7321	Clinical Observation or Clinical Practicum	3
or AHSL 7392		
		Total Hours = 14

Spring Semester Course		Credit Hours
AHSL 7350	Pediatric Audiology	3
AHSL 7150	Pediatric Audiology Lab	1
AHSL 7544	Amplification	5
AHSL 7255	Advanced Concepts of Audiology	2
AHSL 7393	Clinical Practicum	3
		Total Hours = 14

Summer Semester Course		Credit Hours
AHSL 7251	Counseling	2
AHSL 7330	Speech - Language Development and Disorders	3
AHSL 7394	Clinical Practicum	3
		Total Hours = 8

SECOND YEAR

Fall Semester Course		Credit Hours
AHSL 7370	Implantable Devices in Audiology	3
AHSL 7364	Auditory Electrophysiology	3
AHSL 7164	Auditory Electrophysiology Lab	1
AHSL 5320	Research Design	3
AHSL 7247	Aural Rehabilitation	2
AHSL 7147	Aural Rehabilitation Lab	1
AHSL 7395	Clinical Externship	3
		Total Hours = 16

Spring Semester Course		Credit Hours
AHSL 7245	Clinical Applications of Amplification	2
AHSL 7175	Professional Issues in Audiology	1
AHSL 7365	Balance Function	3
AHSL 7165	Balance Function Lab	1
AHSL 7396	Clinical Externship	3
AHSL 7225	Research Colloquium	2
		Total Hours = 12

Summer Semester Course		Credit Hours
AHSL 7397	Clinical Externship	3
AHSL 7000	Research Project	1
		Total Hours = 4

THIRD YEAR

Fall Semester Course		Credit Hours
AHSL 7348	Educational Audiology	3
AHSL 7352	Clinical Disorders in Audiology	3
AHSL 7386	Business Management Practices for Audiologists	3
AHSL 7110	Special Topics in Audiology	1
AHSL 7000	Research Project	1
AHSL 7198 or AHSL 7398	Clinical Externship	1-3
		Total Hours =12-14

Spring Semester Course		Credit Hours
AHSL 7322	Auditory Processing Disorders	3
AHSL 7180	Implications of Pharmacology in Audiology	1
AHSL 7260	Hearing Conservation and Instrumentation	2
AHSL 7399 or AHSL 7199	Clinical Practicum	1-3
AHSL 7000	Research Project	1
		Total Hours =8-10

Summer Semester Course		Credit Hours
AHSL 7020	AuD Independent Study	5
		Total Hours = 5

FOURTH YEAR

Fall Semester Course		Credit Hours
AHSL 7020	AuD Independent Study	5
		Total Hours = 5

Spring Semester Course		Credit Hours
AHSL 7020	AuD Independent Study	5
		Total Hours = 5

Department of Speech, Language and Hearing Sciences

Course Descriptions

AHSL 5320 Research Design (3:3:0) The purpose of this course is to summarize the basic concepts of science and research. Emphasis will be placed on the nature of experimental designs and basic inferential statistical analyses. Discussions will also include the application of relevant methodologies in clinical settings.

AHSL 7000 Doctoral Research (v:v:0) May be repeated for credit. Instructor permission is required.

AHSL 7010 Independent Study (v:v:0) A variable credit course used for individualized leveling plans created by the program director.

AHSL 7020 AuD Independent Study (v:v:0) Independent study for advanced students in the fourth year of the AuD program. Two enrollments required before graduation (typically fall and spring of fourth year unless prior approval has been obtained from the department). May not be taken before all courses and comprehensive examinations are successfully completed. May be repeated for credit.

AHSL 7110 Special Topics in Audiology (1:1:0) This course is a capstone course taken in the third year of the AuD program. This course will allow for integration of knowledge in a case-based format.

AHSL 7147 Aural Rehabilitation Lab (1:0:1) This lab course is designed to provide clinical training on using additional testing and techniques to expand the diagnostic and rehabilitative focus of audiologists.

AHSL 7150 Pediatric Audiology Lab (1:0:1) This lab course is designed to provide hands-on experiences in audiological testing of pediatric patients, along with expanding knowledge related to audiological issues in the pediatric population.

AHSL 7164 Auditory Electrophysiology Lab (1:0:1) This lab course is designed to provide hands-on experiences with equipment utilized during electrophysiological testing.

AHSL 7165 Balance Function Lab (1:0:1) This lab course is designed to provide hands-on experiences with equipment utilized in assessment and management of balance function.

AHSL 7175 Professional Issues in Audiology (1:1:0) Overview of the social, political, and economic climate in hearing healthcare delivery. Basic and advanced strategies for practice management and development, interprofessional relationships and responsibilities, supervision of other professionals.

AHSL 7180 Implications of Pharmacology in Audiology (1:1:0) This course will provide the basic information necessary to understand the effects of prescription and nonprescription medications on the auditory and balance systems. Topics will include mechanisms of drug actions, side effects, how age and disease affect these mechanisms, specific effects of certain drugs on the hearing and balance system, and herbal medications.

AHSL 7198-7199 Clinical Practicum (1:1:0) Supervised clinical practicum in audiology.

AHSL 7225 Research Colloquium (2:2:0) Seminar discussion on applied research techniques in the field of audiology. Emphasis is placed on analyzing research applied to patients across the lifespan.

AHSL 7245 Clinical Applications of Amplification (2:2:0) A seminar-style course utilizing case based learning to apply research and theory to clinical practice. Knowledge gained in amplification issues will be utilized throughout the course to determine best clinical practices relating to interpretation, prescriptive formulas, fitting and verification.

AHSL 7247 Aural Rehabilitation (2:2:0) The study of aural habilitation and rehabilitation procedures, intervention techniques, and the use of amplification for hearing-impaired children and adults. Psychosocial issues of hearing loss will be discussed in relation to the hearing impairment, as well as the cultural history of the patient.

AHSL 7251 Counseling in Audiology (2:2:0) An introduction to counseling the communicatively disordered and their families. Emphasis will be placed on special education, vocational, and emotional issues surrounding hearing impairment. Considerations of special populations and lifespan issues will be included.

AHSL 7255 Advanced Concepts in Audiology (2:2:0) This course is to provide clinical training in use of additional testing and techniques to expand the diagnostic and rehabilitative focus of audiologists. It will address audiometric problems from both a clinical and experimental point of view. There will be an emphasis on the theoretical basis behind clinical instrumentation and methodologies in clinical diagnosis. Based on the focus for this course, prerequisite knowledge of basic audiometric testing and interpretation are expected.

AHSL 7260 Hearing Conservation and Instrumentation (2:2:0) This course will present the physiologic and behavioral effects of noise exposure, hearing conservation programs, and clinical services to children and adults from diverse populations. Instrumentation associated with the measurement of noise across multiple environments will be a central aspect of the course.

Department of Speech, Language and Hearing Sciences

AHSL 7370 Implantable Devices in Audiology (2:1:0) Electrophysiology of implantable devices. Also includes processor strategies, and speech/language learning in prelingually deafened listeners.

AHSL 7321 Clinical Observation and Methods (3:0:3) Supervised observation of clinical assessment and management of individuals with communication disorders.

AHSL 7322 Auditory Processing Disorders (3:3:0) This course is designed to address the functional aspects of the auditory system. It will include an overview of anatomy, testing for auditory processing disorders, differential diagnosis, and management. It will also include information on differentiating functional difficulties as symptomology of other disabilities versus auditory processing disorders as the primary diagnosis.

AHSL 7330 Speech and Language Development and Disorders (3:3:0) An overview of speech and language development and the basic principles of assessment and treatment for speech sound and language disorders. Includes a review of phonetics and a special focus on speech and language problems in persons with hearing loss.

AHSL 7340 Auditory Anatomy and Physiology (3:3:0) This course is an in-depth exposure to the structure and function of the auditory system. Emphasis is placed on peripheral structure and function, up to and including important brainstem nuclei. An introduction to cortical structures and processing is presented.

AHSL 7348 Educational Audiology (3:3:0) Audiological considerations in educational settings. The incidence, treatment, and educational sequela of hearing impairment in the auditory-verbal classroom will be covered.

AHSL 7350 Pediatric Audiology (3:3:0) A study of behavioral and objective audiological evaluation, as well as the habilitation and rehabilitation, of infants and children.

AHSL 7352 Clinical Disorders in Audiology (3:3:0) The purpose of this course is to provide students with information to understand the following areas: 1) the anatomy and physiology of auditory mechanisms and lowering areas; 2) etiology and pathology of auditory disorders; and 3) audiological and otologic evaluation/management of auditory disorders.

AHSL 7364 Auditory Electrophysiology (3:3:0) Covers clinical and theoretical knowledge and applied skills of normal and pathological auditory systems. This course will provide clinical instruction in the application of electrophysiological testing techniques and interpretation. Emphasis will be placed on evaluation of auditory functional and site of lesion testing, protocols, and interpretation.

AHSL 7365 Balance Function (3:3:0) Covers theoretical knowledge and applied skills of normal and pathological vestibular system.

AHSL 7386 Business Management Practices for Audiologists (3:3:0) The current course will study a variety of topics important to the management and operation of audiology clinics and professional practices.

AHSL 7390 Clinical Practicum - Individualized Experience (3:3:0) The course is intended to allow for individualized student instruction of clinical procedures and protocols. This course may be repeated for credit.

AHSL 7392-7399 Clinical Practicum (3:3:0) Supervised clinical practicum in audiology.

AHSL 7442 Psychoacoustics and Auditory Perception (4:3:1) This course will present the physiological bases of auditory perception and the corresponding behavioral manifestations including higher-level cognitive and developmental aspects of speech perception. Includes laboratory.

AHSL 7544 Amplification (4:1:0) A comprehensive introduction of amplification devices, methods, and techniques. Consideration of special populations and their diverse needs will also be included.

AHSL 7446 Diagnostic Audiology (4:3:1) This course will present advanced diagnostic techniques for children and adults including those from diverse populations or with special needs.

Department of Speech, Language and Hearing Sciences

Program in Communication Sciences and Disorders

Program Description

The Department of Speech, Language and Hearing Sciences offers a Doctor of Philosophy (Ph.D.) degree in Communication Sciences and Disorders. The program is designed to prepare students with the competencies and abilities to perform in academic, research, and industrial positions. In addition, the program prepares students to meet the growing demands at local, state, regional and national levels for doctoral level instructors/mentors.

The Ph.D. program offers an individualized program which allows each doctoral student to have both broad underpinnings of audiology, speech-language pathology, and/or communications sciences, along with a narrow focus in his/her chosen areas of expertise. As such, each student will be able to study and excel in an individually constructed plan of study that is tailored to the student's area of interest and specialization.

Admission to the Program

Admission to the Ph.D. program in Communication Sciences and Disorders is competitive. Prospective students are urged to apply for admission as early as possible. Admission requirements include (1) completion of online application to the Ph.D. program in communication sciences and disorders, (2) submission of official transcriptions, (3) three letters of recommendation, (4) GRE scores, (5) undergraduate or master's degree in Speech, Language and Hearing Sciences or other related fields such as psychology, linguistics, special education, electrical engineering, biomedical engineering, rehabilitation sciences, and biology, (6) cumulative graduate GPA of 3.0 or better, (7) letter of intent specifying area of interest, (8) interview with at least one faculty member, (9) TOEFL or IELTS scores, if English is the second language, (10) resume, if available.

Program Curriculum

Students in the Ph.D. program in Communication Sciences and Disorders must earn a total of 81 graduate semester credit hours to meet the minimal credit requirements. The total degree requirement hours may consist of a combination of graduate transfer hours and graduate hours completed within the proposed program.

All students must complete a minimum of 57 semester credit hours in the Ph.D. program. Individualized degree programs will be determined by the student's planning committee. A minimum of nine hours of statistics/research design are required. In addition, a minimum of 12 semester credit hours must be taken within the Department of Speech, Language, and Hearing Sciences, and a minimum of 9 credit hours must be taken outside the department. The

program requires a pre-dissertation project, comprehensive examination, and a dissertation. In addition, the program provides students the opportunity to receive experience in teaching.

Course Descriptions

AHSL 8000 Doctoral Research Seminar (6:0:0) Students will enroll in pre-dissertation research projects. This research is expected to make a significant contribution to the student's chosen area of study.

AHSL 8320 Cortical Connections (3:3:0) This course will study the functional significance of the complex array of connections between cortical regions and subcortical regions that support cortical functions. Topics covered include brain & language, animal communication, motor speech processes, the descending pathways, memory & attention, cortical processing of pitch information, thalamocortical organization, cerebellum & cognition, perception of complex sounds, and sound source localization.

AHSL 8321 Linguistics (3:3:0) This course is designed to prepare students for understanding and conducting research in speech and language science. Emphasis is placed on how to conduct a literature search and write a literature review. Students will learn how to present research findings at professional meetings and how to apply research findings in evidence-based practice.

AHSL 8322 Advanced Auditory Research (3:3:0) Seminar devoted to the understanding of frontier knowledge in the area of auditory research and to applying the knowledge in developing and performing research projects. May be repeated as topic varies.

AHSL 8323 Seminar in Language and Culture (3:3:0) Selected topics on language and culture will be explored through reading of current research in the field. Topics include psycholinguistics, sociolinguistics, dialects, language variations, bilingualism, multicultural and multilingual communication, speech perception and production, and language development. May be repeated as topic varies.

AHSL 8324 Seminar in Augmentative and Alternative Communication (3:3:0) The purpose of this course is to present the theoretical and clinical basis of AAC. Emphasis will be placed on evaluating efficacy of AAC intervention with individuals with developmental and acquired disabilities. Discussions will include application of relevant research methodologies in clinical settings. May be repeated as topic varies.

AHSL 8325 Seminar in Speech Perception (3:3:0) Seminar devoted to the area of understanding speech. Topics will include research and clinical application of speech perception studies. May be repeated as topic varies.

Department of Speech, Language and Hearing Sciences

AHSL 8328 Seminar in Pediatric Audiology (3:3:0) Selected studies in infant, child, and adolescent audiology. Studies can include areas such as diagnostic audiology, aural rehabilitation in children, and educational audiology. May be repeated as topic varies.

AHSL 8330 Seminar in Healthcare Policy and Administration (3:3:0) Seminar devoted to the study of major issues facing U.S. healthcare in the 21st century. Topics will include an overview of U.S. healthcare organizations and delivery systems, economics of healthcare policy, issues of access to care, managed care, quality assessment, and healthcare finance.

AHSL 8332 Seminar in Neural Bases of Adult Communication Disorders (3:3:0) Seminar devoted to the study of the impact of neurological impairments on the speech, language, cognition, and swallowing abilities of adults. Topics will include the neural basis of dysarthria, apraxia of speech, aphasia, dementia, and dysphagia in adults. Links will be made between neural basis and clinical behavior, as well as evidence based practice interventions.

AHSL 8333 Seminar in Neural Bases of Pediatric Communication Disorders (3:3:0) Seminar devoted to the study of the impact of neurological impairments on the speech, language, cognitive, social, and swallowing abilities of children. Topics will include the neural basis of common pediatric communication disorders, childhood apraxia of speech, and others. Links will be made between the neural basis and clinical behavior, as well as evidence based practice interventions.

AHSL 8334 Seminar in Cross-disciplinary Research in Speech and Hearing (3:3:0) Selected studies in communication sciences, offering the opportunity for cross-disciplinary interaction between faculty and students. Studies can include speech-language pathology, audiology, speech science, hearing science, or related fields.

AHSL 8335 Seminar in Treatment for Adult Neurogenic Disorders (3:3:0) Seminar devoted to discussing and critically evaluating strategies for people with neurogenic communication disorders. Emphasis will be placed on evaluating efficacy of contemporary intervention techniques with individuals who have adult neurogenic communication disorders.

AHSL 8336 Seminar in Advanced Vestibular Issues (3:3:0) Seminar devoted to the area of understanding vestibular and balance issues. Topics include discussion about the physiological basis of the vestibular/balance system, pathophysiology of disorders, methods and evaluation of vestibular rehabilitation, and research in these areas.

AHSL 8337 Seminar in Brain and Language (3:3:0) The focus of this seminar is to learn about central issues in brain and language research. Emphasis will be placed on what is known about neurological basis of aphasia. Students will focus

on the relationship between brain and language in terms of their scientific and methodological aspects.

AHSL 8338 Seminar in Clinical Phonetics: Acoustic and Articulatory Studies of Speech Disorders (3:3:0) Seminar devoted to the area of acoustic phonetic and physiological phonetic characteristics of speech disorders, such as: dysarthria, aphasia, apraxia, and developmental articulation disorders. Emphasis will be placed on methods of describing speech disorders from an acoustic perspective through the study of classic and recent research studies; however, physiological mechanisms underlying the disordered acoustic signal will also be selectively addressed. The course will include laboratory exercises in the acoustic analysis of normal and disordered speech.

AHSL 8340 Laboratory Rotation I (3:0:3) First of three laboratory rotations required in the Ph.D. program. The primary purpose of the Laboratory Rotation is to provide doctoral students with the opportunity to experience different laboratory environments and research areas and in so doing, assist him or her in choosing a research area for dissertation work.

AHSL 8341 Laboratory Rotation II (3:0:3) Second of three laboratory rotations required in the Ph.D. program. The primary purpose of the Laboratory Rotation is to provide doctoral students with the opportunity to experience different laboratory environments and research areas and in so doing, assist him or her in choosing a research area for dissertation work.

AHSL 8342 Laboratory Rotation III (3:0:3) Third of three laboratory rotations required in the Ph.D. program. The primary purpose of the Laboratory Rotation is to provide doctoral students with the opportunity to experience different laboratory environments and research areas and in so doing, assist him or her in choosing a research area for dissertation work.

AHSL 8350 Advanced Quantitative Techniques (3:3:0) This course teaches how to do an independent data analysis in behavioral sciences at a Ph.D. level. Specifically students will demonstrate proficiency in advanced parametric techniques such as multiple regression, factor analysis, discriminate analysis, and multivariate analysis of variance. Students will use SPSS to perform the necessary statistical tests. Emphasis will be on application and interpretation of multivariate statistics.

AHSL 9000 Doctoral Dissertation (9 hours) The Doctor of Philosophy degree in Communication Sciences and Disorders is a research degree and is conferred only in recognition of high achievement in independent scientific research and scholarship.

Courses may also include curriculum from graduate programs in the Department of Speech, Language and Hearing Sciences. Individualized degree programs also include courses from departments at Texas Tech University and the Texas Tech University Health Sciences Center.

DEPARTMENT OF LABORATORY SCIENCES AND PRIMARY CARE

Program in Clinical Laboratory Science

Program Description

The clinical laboratory plays a major role in diagnostic medicine. Graduates of the Program in Clinical Laboratory Science (medical technology) analyze patient specimens for indications of disease. Results of these tests are used by the physician in confirming the patient diagnosis and in prescribing therapy. Academic preparation for a career in clinical laboratory science is a four-year baccalaureate degree, including a clinical preceptorship. Two years of prerequisite courses in chemistry, mathematics, biology, microbiology, and liberal arts precede a two-year professional component dealing specifically with clinical laboratory science. The professional program combines didactic instruction with student laboratory experience, followed by clinical practice in affiliated laboratories.

The TTUHSC Clinical Laboratory Science program culminates in the Bachelor of Science degree in Clinical Laboratory Science. Graduates of the program are eligible to sit for national certification examinations.

This program is accredited by the National Accrediting Agency for Clinical Laboratory Sciences (NAACLS). NAACLS can be contacted at:

8410 W. Bryn Mawr Suite 670
Chicago, IL 60631-3415
(773) 714-8886

TTU Honors College students accepted into the CLS program may complete honors college credit in the School of Allied Health Sciences and graduate with the honors designation.

Special Features

Candidates seeking a degree in clinical laboratory science have the option of pursuing the Bachelor of Science in clinical laboratory science tract offered at the Lubbock campus or the second degree online tract for students who already hold a Bachelor of Science degree. A third tract is available for students who wish to earn a certificate in clinical laboratory science. All three tracts are eligible to sit for the national certification in clinical laboratory science through the American Society of Clinical Pathology Board of Registry and the National Credentialing Agency for Laboratory Personnel.

Essential Functions

A student admitted into the Clinical Laboratory Science program must meet basic and essential requirements that are necessary to be able to obtain employment in the field of clinical laboratory medicine. The essential functions identified are the following:

1. Must be able to communicate effectively, in English, in the written and verbal form with colleagues, instructors, patients, and other members of the healthcare team.
2. Must have the physical and motor function ability to observe, learn and implement various technical skills associated with the practice of clinical laboratory medicine such as: hand-eye coordination to operate specialized automated and technical equipment including a microscope, and manual dexterity associated with specimen collection, including venipuncture.
3. Must have the intellectual and integrative abilities to measure, calculate, reason, analyze, evaluate and synthesize. This includes problem solving skills and interpretation of laboratory data.
4. Must have the maturity to readily accept the clinical preceptorships assigned by the clinical coordinator.
5. Must have basic computer and typing skills needed to complete assignments.
6. Students are required to own or have access to a laptop computer for use in the classroom. Laptops are suggested to have a minimum of 1 GB Shared DDR2 SDRAM, 60 GB hard drive and have wireless capabilities.

Admission to the BSCLS Lubbock Campus Program

Third year students (juniors) seeking admission must have the required number of semester hours of credit for admission. All courses must be completed prior to beginning the professional program. A personal interview is the final part of the admissions review.

Pre-Professional Curriculum for BSCLS Lubbock Campus

Specific prerequisite courses must be completed before application to the professional phase of the Clinical Laboratory Science program.

A minimum overall GPA of 2.5 on a 4.0 scale and a grade of C or better in each prerequisite course is required. GPA calculations are based on required courses. Provisional admission may be offered to applicants with a GPA of less than 2.5. Such applications will be reviewed on an individual basis.

On the following page are example course plans using the Texas Tech equivalents of the prerequisite courses. Students wishing to enter the Clinical Laboratory Science program should choose either the standard, pre-med and pre-PA options. Substitution of courses may be authorized by the Program Director.

Standard Option Prerequisites

FIRST YEAR

Fall Semester Course		Credit Hours
CHEM 1307	Principles of Chemistry I	3
CHEM 1107	Principles of Chemistry Lab I	1
BIOL 1403	A&P or Biology I	4
MATH 1320	College Algebra	3
ENGL 1301	Essentials of College Rhetoric	3
		Total hours = 14

Spring Semester Course		Credit Hours
CHEM 1308	Principles of Chemistry II	3
CHEM 1108	Principles of Chemistry II Lab	1
ENGL 1302	Advanced College Rhetoric	3
BIOL 1404	Biology II or A&P	4
	*Elective	3
		Total hours = 14

SECOND YEAR

Fall Semester Course		Credit Hours
CHEM 2303	**Introduction to Organic Chemistry	3
CHEM 2103	**Introduction to Organic Chemistry Lab	1
HIST 2300	U.S. History to 1877	3
POLS 1301	American Government Organization	3
	*Elective	3
	*Elective	3
		Total hours = 16

Spring Semester Course		Credit Hours
MBIO 3401	Principles of Microbiology	4
HIST 2301	U.S. History after 1877	3
POLS 2302	American Public Policy	3
	Science Elective	3-4
		Total hours = 13 - 14

** Electives must be one behavioral science, one humanities and one visual performing arts. Please see advisor.*

*** Organic 3305/3105 can be substituted.*

Pre-Med Option Prerequisites

The pre-med mentor program is designed to provide direction to students interested in attending medical school following the completion of a degree in clinical laboratory science. The primary purpose of this program is to help

the student, by means of meetings and counseling, to prepare for and apply to medical school. Preparation for the Medical College Admission Test (MCAT), the admission interview, and other aspects of personal preparation are considered. The goal of this program is to provide to those students with both academic and professional potential the best opportunity to successfully gain admission to medical school.

FIRST YEAR

Fall Semester Course		Credit Hours
CHEM 1307	Principles of Chemistry I	3
CHEM 1107	Principles of Chemistry I Lab	1
BIOL 1403	Biology I	4
ENGL 1301	Essentials of College Rhetoric	3
MATH 1351	Calculus I	3
or		
MATH 2300	Statistics	3
		Total hours = 14

Spring Semester Course		Credit Hours
CHEM 1308	Principles of Chemistry II	3
CHEM 1108	Principles of Chemistry II Lab	1
BIOL 1404	Biology II	4
ENGL 1302	Advanced College Rhetoric	3
	*Elective	3
		Total hours = 14

SECOND YEAR

Fall Semester Course		Credit Hours
PHYS 1306	General Physics	3
PHYS 1103	General Physics Lab	1
CHEM 3305	Organic Chemistry	3
CHEM 3105	Organic Chemistry Lab	1
HIST 2300	U.S. History to 1877	3
POLS 1301	American Government Organization	3
	*Elective	3
		Total hours = 17

Spring Semester Course		Credit Hours
PHYS 1307	General Physics	3
PHYS 1104	General Physics Lab	1
CHEM 3306	Organic Chemistry	3
CHEM 3106	Organic Chemistry Lab	1
MBIO 3401	Principles of Microbiology	4
POLS 2302	American Public Policy	3
HIST 2301	U.S. History after 1877	3
		Total hours = 18

THIRD YEAR

Summer Semester Course		Credit Hours
BIOL 3416	Genetics	4
	*Elective	3
		Total hours = 7

** Electives must be one behavioral science, one humanity and one visual performing art. Please see advisor.*

Pre-Physician Assistant Option Prerequisites

FIRST YEAR

Fall Semester Course		Credit Hours
CHEM 1307	Principles of Chemistry I	3
CHEM 1107	Principles of Chemistry I Lab	1
BIOL 1403	Biology I	4
MATH 1320	College Algebra	3
ENGL 1301	Essentials of College Rhetoric	3
	*Elective	3
		Total hours = 17

Spring Semester Course		Credit Hours
CHEM 1308	Principles of Chemistry II	3
CHEM 1108	Principles of Chemistry II Lab	1
ENGL 1302	Advanced College Rhetoric	3
BIOL 1404	Biology II	4
	*Elective	3
	*Elective	3
		Total hours = 17

SECOND YEAR

Fall Semester Course		Credit Hours
CHEM 2303	Organic Chemistry	3
CHEM 2103	Organic Chemistry Lab	1
HIST 2300	U.S. History to 1877	3
POLS 1301	American Government Organization	3
ZOOL 2403	Human Anatomy	4
	*Elective	3
		Total hours = 17

Spring Semester Course		Credit Hours
ZOOL 2404	Human Physiology	4
POLS 2302	American Public Policy	3
HIST 2301	U.S. History after 1877	3
MBIO 3401	Principles of Microbiology	4
NS 1325	Nutrition	3
		Total hours = 17

THIRD YEAR

Summer Semester Course		Credit Hours
	*Elective	3
		Total hours = 3

**Electives must be one behavioral science, one humanity and one visual performing art. The other two electives should be behavioral sciences to fulfill the TTUHSC PA prerequisites. Please see advisor.*

BSCLS Lubbock Campus Curriculum

The following courses are offered once each year in the semester listed and must be taken in sequence unless granted permission by the course director and Program Director. The course plan is the same for the standard, pre-med and pre-PA options.

FIRST YEAR

Fall Semester Course		Credit Hours
AHMT 3400	Clinical Chemistry I	4
AHMT 3405	Clinical Bacteriology I	4
AHMT 3455	Principles of Immunology	4
AHMT 3110	Professional Issues in CLS	1
AHMT 4300	Applied Statistics and Research	3
		Total hours = 16

Spring Semester Course		Credit Hours
AHMT 3310	Urinalysis and Body Fluids	3
AHMT 3450	Clinical Chemistry II	4
AHMT 3460	Clinical Bacteriology II	4
AHMT 3470	Hematology I	4
		Total hours = 15

SECOND YEAR

Summer Semester Course		Credit Hours
AHMT 4305	Molecular Diagnostics	3
AHMT 4320	Laboratory Management	3
AHMT 4455	Parasitology/Mycology	4
		Total hours = 10

Fall Semester Course		Credit Hours
AHMT 4185	Clinical Correlations	1
AHMT 3465	Immunohematology I	4
AHMT 4640	Clinical Preceptorship I	6
AHMT 4480	Hematology II	4
		Total hours = 15

Spring Semester Course		Credit Hours
AHMT 4741	Clinical Preceptorship II	7
AHMT 4842	Clinical Preceptorship III	8
AHMT 4105	Senior Seminar	1
		Total hours = 16

Total Hours Required (Standard Option)	
Prerequisites	57-58
Professional Curriculum	72
	129-130

Total Hours Required (Pre-Med Option)	
Prerequisites	70
Professional Curriculum	72
	142

Total Hours Required (Pre-PA Option)	
Prerequisites	71
Professional Curriculum	72
	143

During professional studies, students are required to adhere to all program policies and academic and behavioral guidelines as outlined in the Student Handbook and Clinical Preceptorship Manual.

AHMT 3110 Introduction to Clinical Laboratory Science (1:1:0) An overview and introduction to the profession.

AHMT 3310 Urinalysis and Body Fluids I (3:2:3) Analysis of the physical, chemical, and microscopic parameters of urine and body fluids. Special emphasis is placed on understanding kidney function and pathology.

AHMT 3400 Clinical Chemistry I (4:3:6) An introduction to the basic principles, methodologies, and physiology of clinical chemistry.

AHMT 3405 Clinical Bacteriology I (4:3:6) Study of the isolation, cultivation, identification, and susceptibility testing of pathogenic bacteria. The taxonomy, physiology, and pathogenesis of medically important bacteria are covered.

AHMT 3450 Clinical Chemistry II (4:3:6) Prerequisite: AHMT 3400. The qualitative and quantitative chemical analysis of blood and other body fluids. Correlation of test results to health and disease states.

AHMT 3455 Principles of Immunology (4:3:6) Fundamentals of immunology and the human immune system. An introduction to the theory, practical application, and technical performance of immunologic and serologic procedures used in diagnostic laboratory medicine.

AHMT 3460 Clinical Bacteriology II (4:3:6) Prerequisite: AHMT 3405. A continuation of AHMT 3405 with an emphasis in clinical virology, clinical correlations, and case studies and bioterrorism.

AHMT 3465 Immunohematology I (4:3:6) Prerequisite: AHMT 3455. The theory, practical application, and technical performance of blood bank procedures required for transfusion of blood, blood components, and the handling and storage of blood components. Correlation of test results to normal and abnormal physiology.

AHMT 3470 Hematology I (4:3:6) An introduction to the study of coagulation, blood cells, blood forming organs, and related diagnostic laboratory procedures.

AHMT 4105 Senior Seminar (1:1:0) A comprehensive review of topics in clinical laboratory science.

AHMT 4185 Clinical Correlations (1:1:0) Prerequisites: AHMT 3400, 3405, 3450, 3455, 3460, 3465, 3470, 4480. Review of current topics and case studies in clinical laboratory science.

AHMT 4300 Applied Statistics and Research (3:3:0) Introduction to descriptive, inferential, and non-parametric statistics related to basic and clinical science. Introduction to the process of basic and clinical research and research design. Application of statistical analysis to assigned research projects.

AHMT 4305 Molecular Diagnostics (3:3:0) Introduction to basic genetics and genetic testing techniques used in molecular and forensic pathology.

AHMT 4320 Laboratory Management (2:3:0) An introduction to management with emphasis upon management issues and concerns specific to the clinical laboratory.

AHMT 4455 Clinical Parasitology and Mycology (4:3:6) Prerequisite: AHMT 3405, 3460. Study of medically significant protozoan and helminthic parasites and their vectors and pathogenic fungi. Emphasis is placed on laboratory methods and isolation and identification of these agents of disease.

AHMT 4480 Hematology II (4:3:6) Prerequisite: AHMT 3470. The study of blood cells and their abnormalities with emphasis on disease processes.

AHMT 4640 Clinical Preceptorship I An introductory supervised clinical practicum in an affiliated clinical laboratory.

AHMT 4741 Clinical Preceptorship II An intermediate supervised clinical practicum in an affiliated clinical laboratory.

AHMT 4842 Clinical Preceptorship III An advanced supervised clinical practicum in an affiliated clinical laboratory.

Admission to the Second Degree BSCLS Program

This is a 12 month online, second degree tract in clinical laboratory science for students who have completed a four-year science degree from an accredited university. Didactic material is delivered online and laboratory sessions are conducted via two, six-day sessions per semester. Additionally, a clinical laboratory preceptorship is required during the final semester. Candidates must have an overall 2.5 GPA based on a 4.0 scale and a 2.5 science GPA on a 4.0 scale. Students who complete requirements for the degree are eligible to sit for the national certification examination through the American Society of Clinical Pathology Board of Registry and National Credentialing Agency for Laboratory Personnel.

Prerequisite Course Requirements for Second Degree BSCLS

Courses must be completed with a "C" or above to be considered for pre-requisite credit.

12 credit hours of Biological Sciences with laboratory
8 credit hours of Basic Chemistry with laboratory
4 credit hours of Organic Chemistry with laboratory
4 credit hours of Microbiology with laboratory
3 credit hours of Statistics

**recommended courses: Immunology, Anatomy, Physiology, Genetics, Cell Biology, and upper division Microbiology*

Graduates Not from Texas Public Universities

A second bachelor's degree sought by a student who did not graduate from a public Texas university must include the required Core Curriculum:

Communication	
** English 1301 Composition I*	3 hours
** English 1302 Composition II*	3 hours
Mathematics	
Courses with prefix MATH	3 hours
Natural Sciences	
Courses with prefixes BIOL, CHEM, GEOL, PHYS, or other natural sciences	6 hours
Visual and Performing Arts	
Any art, music, drama, or theatre arts course	3 hours
Humanities	
Any literature, philosophy, modern or classical language/literature, or cultural studies course	3 hours
Social and Behavioral Sciences	
**HIST 1301 United States History I*	3 hours
**HIST 1302 United States History II*	3 hours
(Students may substitute 3 credit hours of Texas History for 3 credits of United States History)	
**GOVT 2301 American Government I*	3 hours
**GOVT 2302 American Government II*	3 hours
Any psychology, sociology, or anthropology course	3 hours
Core Curriculum Electives	
Chosen from the fields of study listed above	6 hours

**Course numbers listed are based on the Texas Common Course Numbering System (TCCNS). Check with your academic institution to verify the course number that corresponds with the TCCNS number.*

Admission to the CLS Certificate Program

This is a 12 month online, certificate tract in clinical laboratory science for students who have completed a four-year science degree from an accredited university. Didactic material is delivered online and laboratory sessions are conducted via two, six-day sessions per semester. Additionally, a clinical laboratory preceptorship is required during the final semester. Candidates must have an overall 2.5 GPA based on a 4.0 scale and a 2.5 science GPA on a 4.0 scale. Students who complete requirements for the certificate are eligible to sit for the national certification examination through the American Society of Clinical Pathology Board of Registry and National Credentialing Agency for Laboratory Personnel.

Prerequisite Course Requirements for CLS Certificate Program

Courses must be completed with a "C" or above to be considered for pre-requisite credit.

12 credit hours of Biological Sciences with laboratory
8 credit hours of Basic Chemistry with laboratory
4 credit hours of Organic Chemistry with laboratory
4 credit hours of Microbiology with laboratory
3 credit hours of Statistics

**recommended courses: Immunology, Anatomy, Physiology, Genetics, Cell Biology, and upper division Microbiology*

Second Degree & Certificate CLS Curriculum

Fall Semester Course		**Credit Hours**
AHLC 4341	Foundations of Hemastasis	3
AHLC 4343	Foundations of Clinical Chemistry	3
AHLC 4345	Foundations of Clinical Microbiology	3
AHLC 4450	Clinical Laboratory Practice I	4
		Total hours = 16

Spring Semester Course		**Credit Hours**
AHLC 4242	Advanced Hematology	2
AHLC 4144	Analysis of Body Fluids	1
AHLC 4145	Principles of Molecular Diagnostics	1
AHLC 4146	Advanced Microbiology	1
AHLC 4147	Clinical Immunology	1
AHLC 4348	Foundations of Immunohematology	3
AHLC 4450	Clinical Laboratory Practice II	4
		Total hours = 13

Summer Semester Course		Credit Hours
AHLC 4752	Preceptorship	7
AHLC 4149	Principles of Laboratory Management	1
AHLC 4153	Seminar	1
		Total hours = 9

Total hours = 35

Second Degree & Certificate CLS Course Descriptions

AHLC 4144 Analysis of Body Fluids (1:1:0) A concise review of analysis of the physical, chemical, and microscopic parameters of urine and other body fluids. Some emphasis is placed on understanding kidney function and pathology.

AHLC 4145 Principles of Molecular Diagnostics (1:1:0) An introduction to the basic principles of genetics and the practice genetic testing techniques with an emphasis on human genetic disease

AHLC 4146 Advanced Microbiology (1:1:0) Prerequisite: AHLC 4345. A study of pathogenic mycobacteria, viral agents, fungi, and medically significant protozoan and helminthic parasites. Study includes overview of transmission and associated diseases and emphasis on laboratory isolation and identification of these pathogens.

AHLC 4147 Clinical Immunology (1:1:0) Fundamentals of immunology and the human immune system. An introduction to the theory, practical application, and technical performance of immunologic and serologic procedures used in diagnostic laboratory medicine.

AHLC 4149 Principles of Laboratory Management (1:1:0) An introduction to management with emphasis upon management issues and concerns specific to the clinical laboratory.

AHLC 4153 Seminar (1:1:0) A comprehensive review of topics in clinical laboratory science.

AHLC 4242 Advanced Hematology (2:2:0) Prerequisite: AHLC 4341. A concise review of hematological disorders. The diagnostic implications and laboratory diagnosis of anemias, polycythemias, leukemias and, lymphomas is included.

AHLC 4341 Foundations of Hemostasis (3:3:0) A concise review of the process of coagulation, platelet hemostasis, and the structure and related function of red and white blood cells.

AHLC 4343 Foundations of Clinical Chemistry (3:3:0) An introduction to the principles and practice of clinical chemistry. Correlation of chemistry test results to health and disease states is included.

AHLC 4345 Foundations of Clinical Microbiology (3:3:0) A study of medically important bacteria and associated diseases. Emphasis is placed on laboratory diagnosis, including cultivation, isolation, identification, and susceptibility testing of bacterial pathogens.

AHLC 4348 Foundations of Immunohematology (3:3:0) Prerequisite: AHLC 4147. The theory, practical application, and technical performance of blood bank procedures required for transfusion of blood, blood components, and the handling and storage of blood components. Correlation of test results to normal and abnormal physiology.

AHLC 4450 Clinical Lab Practice I (4:6:40) A laboratory experience that exposes students to basic procedures and skills needed to satisfactorily perform testing in a clinical lab setting. Topics include pre-analytical, analytical, and post-analytical components of Hemostasis, Clinical Chemistry, and Clinical Microbiology testing.

AHLC 4451 Clinical Lab Practice II (4:6:40) Prerequisite: AHLC 4450. A laboratory experience that exposes students to procedures and skills needed to satisfactorily perform testing in a clinical lab setting. Topics include pre-analytical, analytical, and post-analytical components of: Advanced Hematology, Analysis of Body Fluids, Molecular Diagnostics, Advanced Microbiology, Clinical Immunology, and Immunohematology testing.

AHLC 4752 Clinical Preceptorship Prerequisites: AHLC 4341, AHLC 4242, AHLC 4144, AHLC 4147, AHLC 4348, AHLC 4345, AHLC 4146, AHLC 4450, AHLC 4451, AHLC 4343, AHLC 4145. An advanced supervised clinical practicum in an affiliated clinical laboratory.

Program in Molecular Pathology

Program Description

Developments in biotechnology in the past two decades have led to the clinical diagnostic laboratory entering a new phase of development and expansion. For the first time in the history of the diagnostic laboratory, molecular pathology is extending the range of information available to physicians, research scientists, and other health professions. Biotechnology, in all its forms, is the fastest-growing discipline in the modern clinical laboratory. The rapid growth of genomics and molecular techniques available to the healthcare professional is dramatically changing the detection, treatment, and assessment of disease. The diagnostic molecular scientist is a professional who is qualified by academic and applied education to provide service in the molecular diagnosis of acquired, inherited and infectious diseases. The goal of molecular diagnostics is to enhance the value of clinical laboratory services by providing an environment in which new tests based on the application of knowledge and new techniques at the most basic cellular level (i.e. molecular techniques) can be established, validated and applied to the testing of patient specimens.

Essential Functions

A student admitted into the Molecular Pathology program must meet basic and essential requirements that are necessary to be able to obtain employment. The essential functions identified are the following:

1. Must be able to communicate effectively, in English, in the written and verbal form with colleagues, instructor, patients, and other members of the healthcare team.
2. Must have the physical and motor function ability to observe, learn, and implement various technical skills associated with the practice of laboratory medicine such as: hand-eye coordination to operate specialized automated and technical equipment.
3. Must have the intellectual and integrative abilities to measure, calculate, reason, analyze, evaluate and synthesize. This includes problem solving skills and interpretation of laboratory data.
4. Must have the maturity to readily accept the clinical preceptorship assigned by the clinical coordinator.
5. Must have computer and typing skills required to complete academic and preceptorship assignments.
6. Students are required to own or have access to a laptop computer for use in the classroom. Laptops are suggested to have a minimum of 1 GB Shared DDR2 SDRAM, 60 GB hard drive and have wireless capabilities.

The TTUHSC Molecular Pathology program culminates in the Master of Science degree in Molecular Pathology. To further molecular pathology among allied health professions, the National Credentialing Agency (NCA) has developed a national certification examination for the Certified Laboratory Specialist in

Molecular Biology, CLSp (MB). In addition, the American Society of Clinical Pathology offers a certification exam in molecular pathology resulting in an MP (ASCP) certificate.

This program is accredited by the National Accrediting Agency for Clinical Laboratory Sciences (NAACLS). NAACLS can be contacted at:

8410 W. Bryn Mawr Suite 670
Chicago, IL 60631-3415
(773) 714-8886

Special Features

The twelve-month program includes 27 credit hours of didactic (classroom and laboratory) experience and seven credit hours of mentored, clinical biomedical research (clinical preceptorship). The clinical experiences are structured to provide skill and practice in diagnostic techniques, quality assurance, and interpreting and reporting patient results. The clinical experience is an integral part of the curriculum and students pay regular tuition and fees for enrollment.

Admission to the Program

To qualify for admission to the program, applicants must have completed or plan to complete a Bachelor's degree with all prerequisite courses from an accredited U.S. college or university prior to enrollment. A cumulative grade point average of 3.0 or above (on a 4.0 scale) is necessary to qualify for admission. Provisional admission may be offered to applicants with a GPA of less than 3.0. Such applications will be reviewed on an individual basis. Applications must be received by March 1st to be considered for fall enrollment of that year. Coursework begins in the fall semester. All qualified candidates selected by the MSMP admissions committee will be invited for an on-campus interview.

Admission Requirements

- Graduate of a NAACLS accredited Clinical Laboratory Science Program (cumulative 3.0 GPA) with a national certification in clinical laboratory science

  or

- Graduate of a NAACLS accredited Clinical Laboratory Technician Program with a Bachelor's degree (cumulative 3.0 GPA)

  or

- Graduate of an accredited university with a Bachelor's degree in a science discipline which includes the following courses:

General Chemistry with lab	8 semester hours
Microbiology	4 semester hours
Biochemistry	3-4 semester hours
Cell Biology (recommended)	4 semester hours
Anatomy & Physiology	4 semester hours
College Algebra	3 semester hours
General Biology	8 semester hours
Organic Chemistry	8 semester hours
Genetics	3-4 semester hours

Molecular Pathology Curriculum

The following courses are offered once each year in the semester listed and must be taken in sequence unless granted permission by the course director or Program Director.

Fall Semester Course		**Credit Hours**
AHMP 5405	Applied Molecular Techniques I	4
AHMP 5407	Pathophysiology/Clinical Laboratory	4
AHMP 5100	Issues In Molecular Pathology I	1
AHMP 5741	Graduate Research	7
		Total Hours = 16

Spring Semester Course		**Credit Hours**
AHMP 5301	Management of the Molecular Laboratory	3
AHMP 5406	Molecular Biology of the Cell	4
AHMP 5408	Applied Molecular Techniques II	4
AHMP 5742	Clinical Preceptorship	7
		Total Hours = 18

Summer Semester Course		**Credit Hours**
AHMP 5102	Graduate Seminar	1
AHMP 5300	Applied Statistics & Research	3
AHMP 5309	Human Molecular Genetics	3
		Total Hours = 7

Course Descriptions

AHMP 5100 Issues in Molecular Pathology I (1:1:0) Presentation of current topics regarding the biomedical application of genetic information using a journal club format. Ethical issues and principles of educational methodologies will also be discussed.

AHMP 5102 Graduate Seminar (1:1:0) Graduate seminar. Independent study and prep for external certification in Molecular Pathology.

AHMP 5300 Applied Statistics & Research (3:2:3) Introduction to descriptive, inferential, and non-parametric statistics related to basic and clinical science; introduction to the process of basic and clinical research and research design. Independent work on research project with application of statistical analyses to assigned project.

AHMP 5301 Management of the Molecular Laboratory (3:3:1) Business and management principles relative to laboratory management and administration will be presented. The purpose, function, and utilization of laboratory services. Specimen procurement, patient education and consent, regulatory issues, and quality assurance are discussed. Specific requirements regarding certification of molecular pathology clinical laboratories will be reviewed and discussed.

AHMP 5309 Human Molecular Genetics (3:3:0) Advanced human molecular genetics with an emphasis on the causative factors and diagnosis of human disease. Discussion of the fundamental principles of medical genetics, including basic Mendelian genetics, the molecular and biochemical basis of genetics, developmental genetics, genetics of complex diseases, cancer, and infectious agents. Genetic counseling, carrier screening and prenatal diagnosis will be discussed.

AHMP 5405 Applied Molecular Techniques I (4:3:6) Introduction to basic genetic testing techniques used in molecular and forensic pathology with discussion of quality laboratory practice including quality control, quality assurance, and quality improvement. Lab component will focus on the use of DNA technologies in clinical settings. Independent work on research project with mentor.

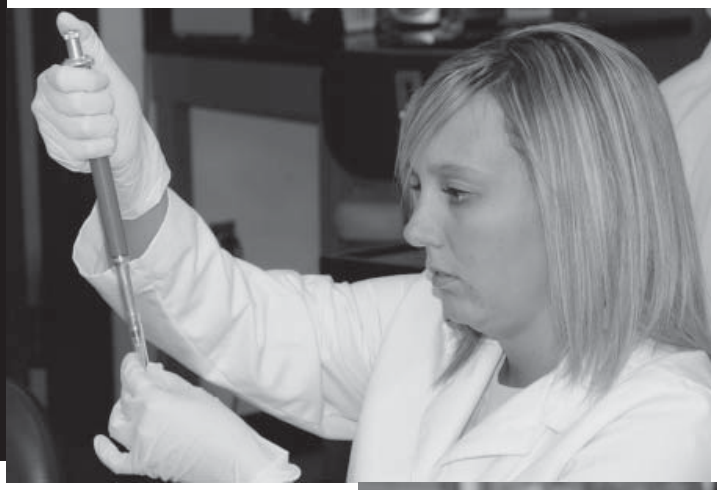
AHMP 5406 Molecular Biology of the Cell (4:4:0) Comprehensive survey course in eukaryotic molecular biology and genetics required by all students planning a career in molecular pathology or basic biomedical research. Course will cover the fundamental concepts of eukaryotic genetics, regulation of transcription, cell-cell communication, and immunogenetics with a focus on human systems. A strong background in biology and chemistry is assumed.

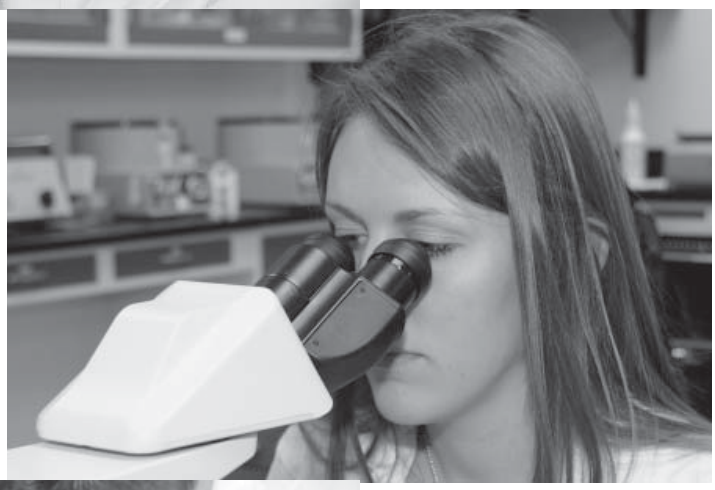
AHMP 5407 Pathophysiology/Clinical Laboratory (4:4:0) Presentation of the basis of human disease with regard to the major determinants of disease in human organ systems with discussion of normal anatomy and physiology. Survey of the clinical laboratory that includes common laboratory assays (Hematology, Clinical Chemistry, and Microbiology) addresses the purpose, function, and utilization of laboratory services. Specimen procurement, patient education and consent, and quality assurance are discussed.

AHMP 5408 Applied Molecular Techniques II (4:3:6) Prerequisite: AHMP 5405. Continuation of Applied Molecular Techniques I with advanced training and technical experience in the use of DNA and RNA technologies applied to the clinical setting. Independent work on research project.

AHMP 5741 Graduate Research Supervised independent advanced molecular clinical research in an affiliated laboratory. Course culminates in the preparation of an original scientific paper and public presentation of the research project.

AHMP 5742 Clinical Preceptorship Supervised advanced molecular clinical practicum in an affiliated laboratory with emphasis on patient testing, quality assurance, and case studies assessment.





Program in Physician Assistant Studies

The PA Profession

Physician Assistants are skilled healthcare professionals who are academically and clinically prepared to practice medical skills with the supervision of a licensed physician. With physician management, the PA can exercise autonomy in making medical decisions and provide a broad range of diagnostic and therapeutic services.

The PA is trained to take medical histories, perform physical examinations, order and interpret diagnostic tests, formulate a working diagnosis and implement a treatment/management plan. The clinical role of the PA includes primary and specialty care in medical and surgical practice settings in both urban and rural areas. PA practice is centered on patient care and patient advocacy. Patient education and counseling are important aspects of daily PA activity but the PA may also be involved in research or administrative duties.

PA's are physician-dependent healthcare providers, and that is a distinctive characteristic of the profession. The Physician – PA team is a close professional relationship built on trust and collegiality. The PA is trained to provide quality healthcare as an agent or extension of the physician. The PA is accountable to a supervising physician, and the physician is ultimately responsible for care rendered by the PA.

Program Description

Based in Midland, Texas, and located on the campus of Midland College, the Texas Tech University Health Sciences Center PA Program is one of the programs in the Department of Laboratory Sciences and Primary Care in the School of Allied Health Sciences and offers a Master of Physician Assistant Studies (MPAS) degree. The curriculum is an intensive 27 month medical education program with a focus on primary care and family medicine and consists of academic and clinical components.

Admission Requirements

A minimum 3.2 grade point average (GPA) on a 4.0 scale is required on the overall GPA and the science GPA. Completion of all science prerequisites within seven years of admission is highly recommended for competitive admission. Competitive applicants will have a strong academic record, excellent recommendations, a positive demonstration of community service, and heath care shadowing experiences preferably with one or more physician assistants. A finished degree, professional studies, healthcare certification, licensure or work experience are not required, but strongly encouraged for competitive admission. AP and CLEP credit will not be accepted for any science prerequisite courses.

There is no advanced placement, transfer credit or experiential learning credit within the TTUHSC PA Program. The GRE is not required.

Applicants must have 66 semester hours of undergraduate, pre-professional, required course work to be considered for admission into the TTUHSC PA Program. Applicants may have up to 9 hours of course work in progress during the spring semester prior to entering the program. Course load for each applicant will be reviewed on an individual basis.
Applicants are required to own or have access to a laptop computer. Laptops are suggested to have a minimum of 1 GB Shared DDR2 SDRAM, 60 GB hard drive and have wireless capabilities.

Preprofessional Prerequisites

The TTUHSC PA program requires at least 66 hours of preprofessional course work, including the following required undergraduate course studies:

Prerequisite Course	Semester Hours
English	6
College Algebra	3
Biology	8
Microbiology	4
Human Anatomy and Physiology	8
General Chemistry	8
Social and Behavioral Sciences	9
Human Nutrition	3
Statistics	3
Electives*	14
	Total Hours = 66

**Recommended Electives: Computer literacy, medical terminology, communication skills, and genetics.*

Physician Assistant Curriculum

FIRST YEAR

First Summer Semester Course		Credit Hours
AHPA 5101	Introduction to PA Profession	1
AHPA 5306	Pharmacology I	3
AHPA 5301	Clinical Laboratory	3
AHPA 5406	Physiology	4
AHPA 5501	Anatomy	5
AHPA 5201	Medical Ethics	2
		Total Hours = 18

First Fall Semester Course		Credit hours
AHPA 5502	Physical Examination	5
AHPA 5308	Neuroscience	3
AHPA 5310	Medical Interviewing	3
AHPA 5307	Pharmacology II	3
AHPA 5407	Pathology	4
		Total Hours = 18

First Spring Semester Course		Credit Hours
AHPA 5309	Pediatrics	3
AHPA 5311	Cardiology	3
AHPA 5403	Clinical Medicine I	4
AHPA 5404	Clinical Medicine II	4
AHPA 5312	Clinical Medicine III	3
AHPA 5313	Clinical Medicine IV	3
		Total Hours = 20

SECOND YEAR

Second Summer Semester Course		Credit Hours
AHPA 6302	Medical Spanish	3
AHPA 6301	Clinical Medicine VI	3
AHPA 6501	Clinical Medicine V	5
AHPA 6306	Medical Psychology	3
AHPA 6304	Healthcare Management	3
		Total Hours = 17

Second Fall, Second Spring, and Third Summer Semesters Course*		Credit Hours
AHPA 6601	Family Medicine Clerkship	6
AHPA 6602	Internal Medicine Clerkship	6
AHPA 6603	Prenatal Care & Gynecology Clerkship	6
AHPA 6604	Pediatric Clerkship	6
AHPA 6605	Emergency Medicine Clerkship	6
AHPA 6606	Geriatric Clerkship	6
AHPA 6607	Psychiatry Clerkship	6
AHPA 6608	Surgery Clerkship	6
		Total Hours = 48

**Clinical Study (6 week rotations)*

Throughout the Clerkship Year Course		Credit Hours
AHPA 6404	Master Project Track	4
		Total Hours = 4

Course Descriptions

AHPA 5101 Introduction to the Physician Assistant Profession (1:1:0) This lecture series explores the role and socialization of the physician assistant as a healthcare professional. The course discusses the history of the profession, the evolution of the physician – PA team, maintenance of professional credentials, professional organizations, program accreditation, professional liability, practice issues and future trends.

AHPA 5201 Medical Ethics & Jurisprudence (2:2:0) This lecture series examines prominent ethical issues in healthcare delivery. Students are engaged in discussion of ethical dilemmas relevant to clinical practice and the unique relationship of the physician and physician assistant. The course also examines quality assurance and risk management, legal issues, practice statutes and rules regulating physician assistant practice in Texas.

AHPA 5301 Clinical Laboratory (3:3:0) This lecture series describes the significance, ordering and interpretation of laboratory studies routinely ordered in the clinical setting. Concepts of microbiology, including immunology and infectious disease will be examined. Case studies are incorporated into the teaching process.

AHPA 5306 Pharmacology I (3:3:0) This lecture series introduces the actions of basic pharmacologic agents in the human. The mechanism of action, principal actions and adverse reactions of conventional classes of drugs is examined. A review of fundamental pharmacology calculations, measurements and symbols are performed.

AHPA 5307 Pharmacology II (3:3:0) This lecture series builds on Pharmacology I. The action and interaction of pharmacological agents is discussed. Therapeutic applications, adverse reactions and contraindications to familiar drugs are considered. Instruction in proper writing of prescriptions is presented.

AHPA 5308 Neuroscience (3:3:0) This lecture series details the human nervous system, with emphasis on the recognition of neuroanatomical arrangement. The course explores neurophysiology and concepts of neurochemistry.

AHPA 5309 Pediatrics (3:3:0) This lecture series surveys the acute and chronic disease states frequently encountered in the primary care setting as well as normal child growth and development, childhood immunizations, disease prevention, health maintenance and neonatology. Students are challenged to correlate the subjective signs and symptoms with physical examination findings and clinical pathophysiology in developing critical thinking and a problem oriented approach to diagnosis and treatment. Referral of patients to other healthcare providers or agencies is discussed. Case studies and patient/parent education are incorporated into the teaching process.

AHPA 5310 Medical Interviewing (3:2:2) This course focuses on the "how to" aspects of patient interviewing, communication skills, and counseling skills. It stresses attributes of respect for self and others, adherence to the concepts of privilege and confidentiality in communicating with patients and a commitment to the patient's welfare. Class sessions include lectures, interviewing labs and role-playing exercises. Small groups meet on a regularly scheduled basis each week to discuss and "actively" practice interviewing skills. This practice may include interviewing other students, simulated patients, or real patients in the hospital.

AHPA 5311 Cardiology (3:3:0) This lecture series examines the complex disease states frequently encountered in the adult internal medicine setting. Students are challenged to correlate the subjective signs and symptoms with physical examination findings and clinical pathophysiology in developing a problem oriented approach to diagnosis and treatment. The approach to problems in cardiology and EKG interpretation is explored.

AHPA 5312 Clinical Medicine III (3:3:0) This lecture series examines the complex disease states frequently encountered in the primary care medicine setting. Students are challenged to correlate the subjective signs and symptoms with physical examination findings and clinical pathophysiology in developing critical thinking and a problem oriented approach to diagnosis and treatment. Referral of patients to other healthcare providers or agencies is discussed. The approach to problems in orthopedic and musculoskeletal disease processes including acute, chronic, continuing, rehabilitative care is explored. Case studies and patient education are incorporated into the teaching process.

AHPA 5313 Clinical Medicine IV (3:3:0) This lecture series surveys the acute and chronic disease states frequently encountered in the primary care setting. Students are challenged to correlate the subjective signs and symptoms with physical examination findings and clinical pathophysiology in developing critical thinking and a problem oriented approach to diagnosis and treatment. The family medicine relevance to genitourinary, reproductive (including family planning) and endocrinology processes including acute, chronic, continuing, rehabilitative care are explored. Referral of patients to other healthcare providers or agencies is discussed. Case studies and patient education are incorporated into the teaching process. This series discusses the genetic and molecular basis for selected diseases.

AHPA 5403 Clinical Medicine I (4:4:0) This lecture series examines the complex disease states frequently encountered in the adult internal medicine setting. Students are challenged to correlate the subjective signs and symptoms with physical examination findings and clinical pathophysiology in developing critical thinking and a problem oriented approach to diagnosis and treatment. The approach to problems in pulmonology and gastroenterology are explored including the important aspects acute, chronic, continuing and rehabilitative care. The role of proper nutrition for health and disease prevention is discussed. Referral of patients to other healthcare providers or agencies is discussed. Case

studies and patient education are incorporated into the teaching process. This series discusses the genetic and molecular basis for selected diseases.

AHPA 5404 Clinical Medicine II (4:4:0) This lecture series surveys the acute and chronic disease states frequently encountered in the primary care setting. Students are challenged to correlate the subjective signs and symptoms with physical examination findings and clinical pathophysiology in developing critical thinking and a problem oriented approach to diagnosis and treatment. The family medicine relevance to EENT, infectious disease, dermatology, hematology /oncology and alternative /complementary medicine and the important aspects of acute, chronic, continuing and rehabilitative care are explored. Referral of patients to other healthcare providers or agencies is discussed. Case studies and patient education are incorporated into the teaching process.

AHPA 5406 Physiology (4:4:0) This lecture series investigates human physiology through a detailed explanation of the functions and activities of bodily processes as related to healthcare. It discusses the fundamental principles of cellular physiology, considers the important concepts necessary for understanding the integrated cellular function of the human body and develops the explanation of human physiology as relevant to the health professional. The lectures assimilate an approach to major organs systems and develop important concepts and principles necessary for understanding the integrated function of major organ systems of the human body.

AHPA 5407 Pathology (4:4:0) This lecture series integrates normal human physiology with the pathological basis of disease. It illustrates abnormal cellular physiologic function in disease conditions, introduces major concepts of cellular pathophysiology and demonstrates abnormal physiologic function in disease conditions. The principles of cellular pathophysiology are applied to organ system pathology and the study of representative and important diseases. The lectures examine the function of major organ systems in addressing the pathological basis for disease. This series discusses the molecular and genetic basis for selected diseases.

AHPA 5501 Human Anatomy (5:4:2) This lecture / laboratory series encompasses a regional study of the gross morphological features of the human body emphasizing functional anatomy. A portion of the laboratory experience involves computer-assisted learning. Students participate in human cadaver prosection laboratory sessions held at TTUHSC in Lubbock on 4 days during the semester.

AHPA 5502 Physical Examination (5:3:2) This is a lecture / laboratory series in which the pediatric, adult, geriatric and trauma patient physical examination is demonstrated and practiced. Students learn and apply the techniques of a comprehensive physical examination with the proper use of diagnostic instruments. Integration of the medical history (AHPA 5310 – Medical Interviewing) with the physical examination is reviewed and rehearsed. The

laboratory experience utilizes students acting as patients, other simulated patients and real patients in a long term care facility.

AHPA 6301, Clinical Medicine VI (3:3:0) This lecture series explores preventable diseases, resources for health maintenance and risk factor reduction within the community. The course considers selected acute and chronic diseases states, environmental health, occupational medicine and epidemiology. Diseases of the geriatric population, neurology, nephrology, and speech and hearing disorders are addressed. Referral to patients to other healthcare providers and agencies is discussed. Case studies and patient education are incorporated into the teaching process.

AHPA 6302 Medical Spanish (3:3:0) This lecture series is designed to introduce the non-Spanish-speaking healthcare provider to basic and essential medical Spanish terminology in order to elicit information necessary to obtain a comprehensive medical history and perform a physical examination.

AHPA 6304 Healthcare Management (4:4:0) This lecture series informs and prepares the graduate for basic clinical office or hospital practice management. Discussion emphasizes reimbursement issues, coding/billing procedures, licensing and authorization of privileges that are exclusive to physician assistant practice. The impact of socioeconomic issues and healthcare delivery systems are also explored.

AHPA 6306 Medical Psychology (3:3:0) This lecture series analyzes acute and chronic psychiatric diseases frequently encountered in primary care clinical practice. It also explores personality development, child development, normative responses to stress, psychosomatic manifestations of illness and injury, sexuality, responses to death and dying and basic counseling techniques. Adherence to the concepts of privilege and confidentiality in communicating with patients and a commitment to the patient's welfare is stressed. The course will apply interviewing techniques, developed in AHPA 5310 – Medical Interviewing, to the approach to the patient with a psychiatric illness.

AHPA 6404 Master Project Track (4:4:0) This course is taught during the grand rounds held at the completion of each clerkship and includes a research and writing project. The basics of biomedical research are explored prior to the writing phase. Students are instructed on the techniques necessary to search and interpret the medical literature and its application to patient care. Students prepare and submit a manuscript for evaluation. The document must be informative, established from published evidence based research and stress current and operational knowledge of new medical findings. Throughout the clinical year during grand rounds at the end of each clinical rotation, the students are instructed and monitored in the stages of developing a text suitable for publication.

AHPA 6501 Clinical Medicine V (5:4:2) This lecture series explores specialized and tertiary healthcare. Students learn the importance of the relationship

between primary care practice and specialty practices. Areas of study include medical specialties, surgical specialties, and emergency medicine. Technical healthcare in sophisticated, research and teaching hospitals is evaluated. This course prepares the student for clinical clerkships. Discussions address appropriate protocol, behavior and dress within the clinical setting. Weekly workshops enable students to learn and perform procedures that are essential to clinical practice. Students perform histories and physical examinations and develop further case presentation skills. A summative evaluation of clinical skills will be administered near the end of the clinical curriculum. PACKRAT (Physician Assistant Clinical Knowledge Rating and Assessment Tool) will be administered as a summative evaluation at the end of the didactic phase, and then administered again at the end of the clinical phase to document the students' progress in developing a medical data base. Case studies and patient education are incorporated into the teaching process.

AHPA 6601 Family Medicine Clerkship (6:0:40) This clerkship provides experience with common diseases and chronic illnesses in the family practice setting and is composed of one six-week rotation. The learning experience includes the family medicine approach to direct care, initial care, comprehensive care and continuity of care. The student participates in the promotion and application of preventive medicine and wellness maintenance techniques as an important aspect of family practice.

AHPA 6602 Internal Medicine Clerkship (6:0:40) This clerkship provides clinical experience with acute and chronic illnesses seen in the general internal medicine practice and is composed of one six week rotation. The student experiences the traditional approach to the comprehensive care of adult patients to include continuity of care. Clinical experience in preventive medicine, health and wellness maintenance techniques, especially in secondary and tertiary settings, is provided.

AHPA 6603 Prenatal Care and Gynecology Clerkship (6:0:40) This clerkship provides a six-week clinical experience in the care of prenatal and gynecologic patients. Training will emphasize the examination of the female patient with focus on the most common gynecologic problems and their diagnostic assessment, the formulation of appropriate treatment plans, the utilization of preventive medicine modalities and the evaluation and education of the pre-natal patient.

AHPA 6604 Pediatrics Clerkship (6:0:40) The Pediatric clerkship is designed to provide PA students with experience in the specialty of pediatric medicine and is composed of one six week rotation. This clerkship provides the opportunity for students to gain general pediatric knowledge and to apply that clinical knowledge to the development of the necessary proficiency for a PA to function in a primary care pediatric setting.

AHPA 6605 Emergency Medicine Clerkship (6:0:40) The Emergency Medicine clerkship will provide the PA student with experience in the emergency

department with urgent and emergent medical problems and with trauma and surgical cases and is composed of one six week rotation. It includes the emergency approach to direct initial and comprehensive care for patients in the acute care setting.

AHPA 6606 Geriatrics Clerkship (6:0:40) The Geriatric clerkship provides a clinical experience with one of the most rapidly growing patient populations in the United States. The six-week rotation provides the student with an opportunity to create a knowledge base and to gain clinical experience in the unique medical, psychosocial, environmental and cultural aspects of aging.

AHPA 6607 Psychiatry Clerkship (6:0:40) The six-week Psychiatry clerkship provides experience with common acute and chronic psychiatric diseases and illnesses in both the outpatient and inpatient settings. The student learns about and interacts with public and private treatment facilities for substance abusers and their affiliated support groups, local public counseling agencies, and state psychiatric facilities.

AHPA 6608 General Surgery Clerkship (6:0:40) The six-week clerkship in surgery provides experience in the presentation and treatment of surgical disease and illness. This rotation allows the PA student to experience the approach to and the management of the surgical patient in the pre-operative, intra-operative, and postoperative phase of care.

DEPARTMENT OF REHABILITATION SCIENCES

Program in Athletic Training

The Master of Athletic Training (M.A.T.) program is accredited by the Commission on Accreditation of Athletic Training Education (CAATE), 2201 Double Creek Drive, Suite 5006, Round Rock, TX 78664, (512) 733-9700 (http://www.caate.net).

The AT Profession

"Certified athletic trainers (ATCs) are medical experts in preventing, recognizing, managing and rehabilitating injuries that result from physical activity" as described by the National Athletic Trainers' Association (NATA). ATCs are integral members of the healthcare team, working under the direction of a licensed physician and in collaboration with other healthcare professionals, administrators, coaches, and parents. Career opportunities exist in settings such as college/university athletic departments, secondary school systems, professional sports, sports medicine clinics, corporate/industrial settings and other healthcare environments.

The American Medical Association recognized athletic training as an allied health profession in 1990. As athletic training has evolved into a recognized allied heath profession, the profession has undergone major educational reform.

After graduating from an accredited professional education program, athletic trainers must pass the Board of Certification, Inc. (BOC) exam to practice athletic training in all states except Texas. In order to legally practice athletic training in Texas individuals must pass the Texas Advisory Board of Athletic Trainers licensure examination. Additional credentialing requirements for athletic training vary from state to state according to athletic training practice acts and state regulations that govern athletic training. **A felony conviction may affect a graduate's ability to sit for the (BOC) examination or attain state licensure.**

Program Description

In July 2000, the Master of Athletic Training program at TTUHSC received notification from the Texas Higher Education Coordinating Board (THECB) that TTUHSC had been granted approval to offer the Master of Athletic Training degree beginning in the Fall of 2000. With THECB approval the Master of Athletic Training program began working toward accreditation by the Commission on Accreditation of Allied Health Education Programs (CAAHEP). The M.A.T. program was granted CAAHEP accreditation in January 2004. As of July 1, 2006 all athletic training education programs (including the M.A.T. program) are accredited by CAATE.

Educational reform in the field of athletic training and the needs of the West Texas area have prompted the development of an innovative, modern educational program in the School of Allied Health Sciences at Texas Tech University Health Sciences Center. The Master of Athletic Training degree program is a 59 semester credit hour, two-year lock step graduate program providing

comprehensive exposure to the field of Athletic Training. Classroom, clinical laboratory, and clinical experiences are integrated throughout the professional curriculum. Settings for the clinical experiences include colleges, high schools, allied health clinics, as well as physicians offices, and the opportunity to view a variety of surgical procedures. By providing clinical experience early in the professional education, students are able to integrate classroom and clinical skills. Students must pass a criminal background check in order to participate in clinical experiences. The program is housed on the Lubbock campus within the TTUHSC system. Upon completion, students will possess the necessary competencies and experiences to challenge the certification examination of the BOC and the licensure examination of the Texas Advisory Board of Athletic Trainers. Individuals must pass these examinations before they are eligible to practice Athletic Training. Successful completion of the professional curriculum leads to a Master of Athletic Training degree.

Classes are restricted to 25-30 full-time students to ensure optimal student/instructor ratios and to enable each student to receive comprehensive instructional and clinical experience. Students entering the program should have ready access to a computer, and be familiar with basic Internet skills, including the use of e-mail, searching the World Wide Web, and using a basic word processing package. Students without computers are encouraged to purchase one and become familiar with it prior to beginning the program.

Admission to the Program

The athletic training program begins the Tuesday after Memorial Day each year. The Admission process is very competitive.

Application Process

All application materials listed below must be submitted and received by the TTUHSC Registrar's Office by October 15 (for early admission) or February 1 (regular deadline) for summer enrollment. The following information is required for an individual to be considered for the M.A.T. program:

1. A completed and submitted online application (including essay)
2. Two letters of recommendation
3. Official transcripts from all colleges/universities attended (**see Prerequisites section*)
4. Verification of observation hours (*see Experience section*)

Additionally, the following information must be provided prior to a student's matriculation in the M.A.T. program:

- Completed health evaluation by an appropriate healthcare provider (**see Health Concerns section*)
- Completed Essential Functions/Technical Standards form (**see Essential Functions section*)

- Verification of current First-Aid and Emergency Cardiac Care Certification (ECCC) from an approved provider (**see ECCC section*)

The Office of Admissions and Student Affairs accepts applications each year between September 1st and February 1st for admission into the class beginning the following May. Applicants wishing to apply for early admissions should submit their application by October 15th. Class size is limited and all admissions are competitive. All application materials should be sent to the **TTUHSC Office of the Registrar**. It is the applicant's responsibility to ensure all application materials have been received by the **TTUHSC Registrar's Office** prior to the application deadline.

Qualified candidates selected by the Athletic Training Admissions Committee will be contacted for either a phone or on-campus interview. Fulfillment of the basic admissions requirements does not guarantee admission. Acceptance into the M.A.T. program is based on a holistic scoring system including grade point average (cumulative and prerequisite courses), completion of all prerequisite courses, athletic training observation/experience, essay, letters of recommendation and interviews (professional and scholastic aptitude) scores. Approximately 25-30 full-time students will be admitted into the M.A.T. program each year.

Prerequisite Courses

Applicants must have earned a Bachelor's degree from an accredited college or university, complete the application process (outlined above), and have completed or plan to complete all prerequisite courses with a 2.7 G.P.A. on a 4.0 scale and a "C" or better prior to enrollment.

Required Course	**Semester Hours**
Anatomy (or A&P I)	4
Physiology (or A&P II)	4
Exercise Physiology	3
Statistics	3
Nutrition	3
Kinesiology/Biomechanics	3
Proof of ECCC and First Aid from approved provider	
Physics with lab (recommended)	(4)
Chemistry with lab (recommended)	(4)
	Total Required Hours = 20

If prerequisite courses have not been completed in the last seven years, program director approval for acceptance of courses may be required.

TEXAS TECH UNIVERSITY EQUIVALENT COURSES

To qualify for admission, applicants must have completed or planned to complete all prerequisite courses from a regionally accredited two-year college, or college/university in the United States prior to enrollment. The courses listed below are the Texas Tech University Equivalent of the prerequisite courses required to apply for admission into the Athletic Training program.

Biological Sciences		**Credit Hours**
ZOOL 2403	Human Anatomy	4
ZOOL 2404	Human Physiology	4
		Required Hours = 8

Statistics		**Credit Hours**
MATH 2300	Statistical Methods	3
or		
PSY 3403	Statistical Methods	3
		Required Hours = 3

Exercise Physiology		**Credit Hours**
ESS 3305	Exercise Physiology	3
		Required Hours =3

Nutrition		**Credit Hours**
F&N 1325	Nutrition, Foods, and Healthy Living	3
or		
F&N 1410	Science of Nutrition	4
		Required Hours =3

Health, Physical Education, & Recreation		**Credit Hours**
ESS 3301	Biomechanics	3
		Required Hours = 3

Chemistry (recommended)		**Credit Hours**
CHEM 1307	Principles of Chemistry I	3
CHEM 1107	(Lab)	1
		Recommended Hours = 4

Physics (recommended)		**Credit Hours**
PHYS 1403	General Physics I	4
		Recommended Hours = 4

GPA Requirements

To be considered for admission, cumulative and prerequisite grade point averages of 2.7 on a 4.0 scale are required. Additionally, students must possess

a "C" or better in all prerequisite courses. Provisional admission may be offered to applicants with a GPA of less than 2.7. Such applications will be reviewed on an individual basis.

Experience

Applicants are expected to have some knowledge of the athletic training profession. This can be acquired in several ways: volunteer work, paid employee, and/or observation under the direction of a BOC certified (A.T.C) or a Texas licensed (L.A.T.) athletic trainer. Applicants must have a minimum of 50 clock hours of observation experience under a BOC certified or a Texas licensed athletic trainer prior to submitting an application for admission.

Health Concerns

Each student must provide the M.A.T. program director with a copy of a complete health evaluation, including a medical history and immunization verification by an appropriate healthcare provider prior to his/her matriculation into the Master of Athletic Training program.

Essential Functions (Technical Standards)

A student admitted into the Athletic Training program must meet essential functions/technical standards that are necessary to be able to obtain employment. These are established minimum physical and mental guidelines necessary for the M.A.T. program. Prior to matriculation, all students must submit verification of their ability to perform at or above the minimum physical and mental guidelines established by the Department of Rehabilitation Sciences. A list of the essential functions for the M.A.T. program and the Department of Rehabilitation Sciences can be found in the Department of Rehabilitation Sciences Student Handbook (http://www.ttuhsc.edu/sah/current/handbooks.aspx) or obtained from the M.A.T. program director. Please familiarize yourself with the essential functions document.

Emergency Cardiac Care Certification and First Aid

Verification of current Emergency Cardiac Care (ECC) and First Aid must be submitted prior to enrollment in the professional curriculum OR application deadline. ECC and First Aid certification must be maintained throughout the professional program. ECC must include the following: Adult and Pediatric CPR, Airway Obstruction, 2nd Rescuer CPR, AED, Barrier Devices (e.g., pocket mask, bag valve mask). Acceptable providers are those adhering to the most current International Guidelines for Cardiopulmonary Resuscitation and Emergency Cardiac Care. Examples of courses that provide the above requirements include, but are not limited to: CPR/AED for the Professional Rescuer by the American Red Cross, and the BLS Healthcare provider CPR by the American Heart Association.

Transfer Policy

Students who wish to transfer to one of the Texas Tech University Health Sciences Center (TTUHSC) School of Allied Health Sciences (SOAHS) programs from an equivalent degree program must meet the specific program's admissions criteria and be subjected to the same admissions process as a traditional applicant. A transfer student may be eligible for waiver from classes taken at their previous institution. The student must provide supporting documents specified by the program for courses to be waived. The decision to allow the student to waive the course will be made by the Program Director on a case-by-case basis. Meeting minimum requirements does not guarantee admissions.

Athletic Training Curriculum

The following courses are offered once each year in the semester listed and must be taken in sequence unless granted permission by the course instructor and the M.A.T. Program Director.

FIRST YEAR

Summer Semester Course		Credit Hours
AHAT 5500	Human Anatomy	5
AHAT 5200	Research Methods in Athletic Training	2
AHAT 5222	Introduction to Clinical Education	2
		Total Hours = 9

Fall Semester Course		Credit Hours
AHAT 5105	Research Seminar	1
AHAT 5405	Patient Evaluation & Management I	4
AHAT 5403	Management & Prevention of Injuries	4
AHAT 5305	Biomechanics	3
AHAT 5201	Clinical Experience I	2
		Total Hours = 14

Spring Semester Course		Credit Hours
AHAT 5506	Patient Evaluation & Management II	5
AHAT 5322	Athletic Training Administration	3
AHAT 5304	Special Topics in Athletic Training	3
AHAT 5206	Clinical Experience II	2
		Total Hours = 13

SECOND YEAR

Summer Semester Course		Credit Hours
AHAT 5210	Orthopaedic Assessment I	2
AHAT 5120	Research Directed Study I	1
AHAT 5099	Independent Study (optional)	1-6
AHAT 5098	Practicum (optional)	1-6
		Total Hours = 3-9

Fall Semester Course		Credit Hours
AHAT 5401	Orthopaedic Assessment II	4
AHAT 5223	Special Populations & Concerns	2
AHAT 5227	Current Medical Diagnosis & Treatment	2
AHAT 5225	Clinical Experience III	2
AHAT 5130	Athletic Training Review	1
		Total Hours = 11

Spring Semester Course		Credit Hours
AHAT 5302	Rehabilitation of Sports Injuries	3
AHAT 5224	Management/ Iden. of General Medical Conditions	2
AHAT 5124	Seminar in Athletic Training	1
AHAT 5126	Research Directed Study II	1
AHAT 5228	Clinical Experience IV	2
		Total Hours = 9

Total Program Hours = 59

During professional studies, students are required to adhere to all university, school, department, the TTUHSC Student Affairs Handbook Code and Academic Conduct, and program policies including academic and behavioral guidelines as stated in this catalog and the Department of Rehabilitation Sciences Student Handbook. Expenses (i.e. travel, bags, clothing, Criminal Background Check, etc.) associated with clinical experiences are the responsibility of the student.

Laptop Computer Requirement

The Master of Athletic Training (MAT) Program has the requirement that all incoming students must have a laptop computer. Below is a list of the minimum recommendations for your laptop computer hardware.

General Recommendations for Laptop Computers

Processor:	*Intel processor, 2.0 GHz or greater*
Operating System:	*Windows XP Professional on NTFS*
Memory (RAM):	*2 GB RAM or greater*
Storage:	*80 GB SATA hard drive or greater*
Video:	*128 MB video card or integrated graphics*
Network:	*10/100 network card*
WiFi:	*802.11g wireless network card*
Optical Drive:	*CD-RW/DVD combo drive*

As a Texas Tech University Health Sciences Center students have access to several free software downloads. One of the most useful is Microsoft Office, therefore **DO NOT** purchase Microsoft Office prior to arriving on the TTUHSC campus. Additional information regarding these free software downloads will be provided during orientation.

Course Descriptions

AHAT 5098 Practicum in Athletic Training (v. 1-6) A hands-on athletic training related experience designed to meet the individual needs of the student.

AHAT 5099 Independent Study in Athletic Training (v. 1-6) This course involves an independent project designed to meet the individual students needs and/or interests. This may include, but is not limited to, a research project, course/skill review, or laboratory teaching assistants (anatomy or other courses).

AHAT 5105 Research Seminar (1:1:0) This course focuses on the application of information introduced in Research Methods (AHAT 5200). Emphasis will be placed on becoming good consumers of the literature.

AHAT 5120 Research Directed Study I (1:1:0) A case based approach to research design, incorporating the management, reduction, and analysis of data sets. Information related to applying for jobs, interviewing, and writing cover letters and resumes is covered.

AHAT 5124 Seminar in Athletic Training (1:0:3) Graduate seminar focusing on current events in athletic training and preparation for BOC certification and Texas Licensure athletic training credentialing exams.

AHAT 5126 Research Directed Study II (1:1:0) This course focuses on the interpretation of current research in athletic training and other related medical and health areas and one's ability to apply the results to the daily practice of athletic training.

AHAT 5130 Athletic Training Review (1:1:0) This course is devoted to developing a study schedule and registering for the Athletic Training credentialing exams. Comprehensive written and practical exams will allow the students to assess their readiness to sit for the BOC and Texas Licensure exams.

AHAT 5200 Research Methods (2:2:0) Development of a working knowledge of descriptive and experimental research techniques and statistics and an introduction to performing electronic database searches, and critiquing the literature will be included.

AHAT 5201 Clinical Experience I (2:0:6) A supervised educational experience in athletic training under the supervision of a certified athletic trainer or other healthcare professional. The objective is to obtain hands-on experiences in a variety of athletic training settings including intercollegiate, high school, and clinical/industrial.

AHAT 5206 Clinical Experience II (2:0:6) A supervised educational experience in athletic training under the supervision of a certified athletic trainer or other healthcare professional. The objective is to obtain hands-on experiences in a variety of athletic training settings including intercollegiate, high school, and clinical/industrial.

AHAT 5210 Orthopaedic Assessment I (2:1:3) Theory, principles, clinical applications and literature review associated with athletic training evaluation, assessment, and management of musculoskeletal conditions within the head, neck, and spine.

AHAT 5222 Introduction to Clinical Education (2:0:6) This course is an introduction to basic skills necessary to practice as an athletic training student. The main concept to be covered are medical terminology, basic documentation, OSHA training, first responder responsibilities, taping techniques, safe modality application and identification of common general medical conditions. Hands on surface anatomy with palpation labs are utilized.

AHAT 5223 Special Populations and Concerns for the Athletic Trainer (2:2:0) Examination and discussion of issues related to sports nutrition and the physiological demands of exercise. Survey of injury and illness risk factors associated with sports participation by the preadolescent/adolescent, geriatric, disabled, male, and female athlete.

AHAT 5224 Management/Identification of General Medical Conditions (2:2:0) Study of the etiology, pathology, and clinical manifestations of common illnesses, infectious diseases, and dermatological conditions in athletic populations.

AHAT 5225 Clinical Experience III (2:0:6) A supervised educational experience in athletic training under the supervision of a certified athletic trainer or other healthcare professional. The objective is to obtain hands-on experiences in a variety of athletic training settings including intercollegiate, high school, and clinical/industrial.

AHAT 5227 Current Medical Diagnosis and Treatment (2:2:0) Physician presentation of the medical approach to the management of musculoskeletal

disorders and afflictions. Course content includes etiology, differential diagnosis, prognosis, medical and surgical management, and prophylactic measures for each condition relevant to athletic training.

AHAT 5228 Clinical Experience IV (2:0:6) A supervised educational experience in athletic training under the supervision of a certified athletic trainer or other healthcare professional. The objective is to obtain hands-on experiences in a variety of athletic training settings including intercollegiate, and clinical/ industrial.

AHAT 5300 Advanced Anatomy for Sports Medicine (3:2:3) THIS COURSE IS NOT FOR MASTER OF ATHLETIC TRAINING STUDENTS. Integrated study of gross human anatomy embodying gross morphology and coordinating with development and histological aspects of the body. Included in regional dissection with emphasis on integumentary, musculoskeletal, nervous, and circulatory systems of the extremities.

AHAT 5302 Rehabilitation of Sports Injuries (3:2:3) Assimilation of all aspects of patient evaluation, treatment, and rehabilitation of injuries, with a focus on functional rehabilitation and return to activity.

AHAT 5304 Special Topics in Athletic Training (3:3:0) This course will cover topics such as cell biology, psychosocial concerns, and pharmacology as they relate to the athletic training profession.

AHAT 5305 Biomechanics (3:3:0) Problem-solving approach to the study of human movement with integration of biomechanics fundamental to understanding exercise concepts and musculoskeletal evaluation. The course includes the study of length-tension curves, active and passive insufficiencies, application of lever systems and moments of force to the human body, biomechanical properties of human tissue and joints ergonomics, postural and gait assessment.

AHAT 5322 Administration of Athletic Training Programs & Professional Development (3:3:0) This course discusses planning, coordinating, and supervising all administrative components of an Athletic Training program. Coverage includes theories and concepts in the management of sports healthcare delivery systems, facilities, equipment, and financial resources.

AHAT 5401 Orthopaedic Assessment II (4:3:3) Theory, principles, literature review and clinical applications associated with athletic training evaluation, assessment and management of musculoskeletal conditions within the upper extremity. Scenario based evaluation of the upper and lower extremity and spine will conclude this course.

AHAT 5403 Management and Prevention of Injuries (4:3:3) A study of athletic training room procedures stressing the practical aspects of care and prevention of athletic injury is included. The course covers the cognitive, affective and

psychomotor objectives of athletic training room procedures and management of acute injuries.

AHAT 5405 Patient Evaluation and Management I (4:3:3) Development of clinical skills fundamental to patient management, including an introduction to orthopaedic assessment, clinical evaluation procedures and presentation of the concepts and application of therapeutic exercise.

AHAT 5500 Human Anatomy (5:3:6) Integrated study of gross human anatomy embodying gross morphology and coordinating with development and histological aspects of the body. Included is regional dissection with emphasis on integumentary, musculoskeletal, nervous, circulatory and respiratory systems.

AHAT 5506 Patient Evaluation and Management II (5:3:6) This course emphasizes the use of physical agents, biofeedback, and expands upon the theory, principles, literature, review, and clinical applications associated with patient management. Theory, principles, clinical applications and literature review associated with athletic training evaluation, assessment, and management of musculoskeletal conditions within the lower extremity are covered.

Master of Occupational Therapy

The OT Profession

Mission and Philosophy

The TTUHSC Master of Occupational Therapy program is committed to excellence in student-centered professional education to prepare occupational therapy students with the knowledge, skills, and behaviors essential for entry-level practice in both current and future practice settings. Students develop an understanding of a person(s) from an occupational perspective as they actively engage in opportunities to integrate and synthesize new learning with foundational concepts. The program fosters the development and application of students' clinical reasoning over the course of the curriculum through involvement in active learning, research, and clinical problem solving. This process of reflective practice and critical thinking fosters a spirit of life-long learning.

Philosophy Statement

Beliefs about Humans

Human beings possess a unique array of interests, values, skills, abilities, and experiences which influence the way one perceives, chooses, and engages in various, meaningful activities (also called occupations). Occupations are the ordinary and familiar things that people do everyday. The person's selection of and engagement in these meaningful activities contributes to one's identity and sense of purpose thereby influencing how one spends time and makes decisions.

Beliefs about the Nature of Occupational Therapy

Occupational therapy is the art and science of helping people do the day to day activities that are important and meaningful to their health and well-being. Within occupational therapy, engagement in valued occupations is used as a means of treatment as well as the outcome of therapy. Valued occupations encompass the following areas: self-care, learning, work, play, leisure, social participation, and rest.

Occupational therapists work collaboratively with individuals, families, caregivers, and other groups whose life patterns and ability to engage in valued occupations have been altered as a result of various circumstances (i.e. cognitive or developmental problems, injury or illness, social or emotional deficits, or the aging process). Occupational therapist apply their clinical reasoning as they plan, direct, perform and reflect on client care. The focus of occupational therapy is to facilitate the individual's ability to participate in meaningful, purposeful activities (occupations) at home, school, workplace, community, and various other settings.

Beliefs About the Nature of Learning

Human beings learn through and are shaped by experiences throughout their lives. Opportunities for learning occur in many ways, such as acquiring knowledge, skill development, or personal growth. Through these varied experiences, changes in a person's knowledge, abilities, behavior, and attitudes occur.

Within the occupational therapy program, we believe that the optimal way to facilitate student learning is through processes involving the development of knowledge and reflective thinking. As fundamental concepts are introduced and reintroduced in increasing complexity, students build skills that will guide clinical decision making. Bloom's levels of learning serve as a framework to guide the student learning process. The levels are as follows: knowledge/ comprehension, application, analysis, synthesis and evaluation (Bloom, 1984). Hands on learning, concept mapping, and cognitive scaffolding throughout the curriculum help to facilitate the student's construction and reconstruction of their knowledge, skills, and behavior to achieve higher levels of learning that foster clinical reasoning.

Occupational Therapists work in:

- Hospitals
- Pain clinics
- Rehabilitation centers
- Hand rehabilitation
- Nursing homes
- Burn centers
- Schools
- Academia
- Home health agencies
- Community mental health programs
- Private practice
- Military rehabilitation services
- Health management organizations
- Homeless shelters
- Industry
- Medical supply companies
- Hospice services
- Retirement planning services
- Return-to-work programs

Program Description

The Occupational Therapy Program at TTUHSC is located in Lubbock, Texas. The Occupational Therapy Program is accredited by the Accreditation Council for Occupational Therapy Education (ACOTE) of the American Occupational Therapy Association (AOTA) located at 4720 Montgomery Lane, P.O. Box 31220, Bethesda, MD, 20824-1220. ACOTE's telephone number c/o AOTA is (301) 652-2682 and additional information is located on the website at http://www.aota.org/Educate/Accredit.aspx .

Texas Tech University Health Sciences Center is accredited by the Southern Association of Colleges and Schools (SACS). Additional information regarding SACS can be located at http://www.sacs.org/.

Students begin the program in late May each year. Students will be involved in Level I Fieldwork experiences during the second year in the program. Following completion of all academic courses, students undertake six months of full-time Level II Fieldwork. The length of the entire program is two and a half years.

This program prepares the student to enter the field of occupational therapy with a background in fundamental concepts, clinical reasoning, theoretical foundations, research methods, occupational therapy processes, and professional practice. The curriculum covers the life span from birth to older adulthood, reflecting a lifetime perspective on physical, emotional, social and biological issues affecting activities of daily living. Lectures, case studies, concept mapping, laboratory experiences and clinical education provide opportunities to integrate prior knowledge with new learning and develop competent clinical reasoning. This program fosters professional behavior and relies on community experiences to incorporate the classroom material into clinical practice. Class sizes are restricted to insure optimal student/instructor ratios and to enable each student to receive comprehensive instructional and clinical experience.

During the program, students are required to adhere to all program, departmental, and school policies as outlined in the student handbooks, fieldwork manual, and course syllabi. Students must complete Level II Fieldwork within 12 months following completion of the didactic portion of the program. Successful completion of the program leads to a Master of Occupational Therapy (M.O.T.) degree. Graduates of the program will be eligible to sit for the National Certification Examination for the Occupational Therapist administered by the National Board for Certification in Occupational Therapy (NBCOT). After successful completion of this exam, the individual will be an Occupational Therapist, Registered (OTR). In addition, most states require licensure to practice; however, state licenses are usually based on the results of the NBCOT Certification Examination. A felony conviction may affect a graduate's ability to sit for the NBCOT Certification Examination or attain state licensure.

Fieldwork

Fieldwork education is an integral aspect of our program. Students must pass a Criminal Background Check in order to participate in fieldwork experiences, as well as some lab experiences. Students must be approved for fieldwork placement by the Program Director and the Academic Fieldwork Coordinator. Considerations in this recommendation include student's academic performance, completion of program requirements, and demonstration of adequate professionalism and behaviors indicative of the ability to be effective and productive during clinical training. This includes problem solving ability and critical thinking. Students on Fieldwork assignments are expected to follow safety procedures of the clinical site, plus any other requirements deemed important by the Academic Fieldwork Coordinator and/or Clinical Instructor for a specific clinical site. Behaviors observed during the professional curriculum are taken to be a measure of a student's readiness for Clinical Fieldwork. Level II fieldwork must be completed within 12 months following the completion of academic preparation. Students

are responsible for all costs associated with fieldwork including transportation, housing, meals, uniforms, Criminal Background Checks and other incidental expenses.

Fieldwork education consists of four experiences designed to prepare and expose the student to a variety of applied settings in occupational therapy:

1. Fieldwork I: 1 In the Fall semester of the second year, the student's fieldwork experience may be scheduled and completed the week before the Fall academic courses begin or it may be scheduled and completed 4 hours per week during the Fall semester. The student actively participates in occupational therapy as it is practiced in a pediatric or mental health setting for 40 total hours.
2. Fieldwork I: 2 Prior to beginning classes in the Spring semester of the second year, the student actively participates in occupational therapy as it is practiced in a physical disabilities settings for a total of 80 hours.
3. Fieldwork II: 1 Full-time fieldwork experience and typically begins in June of the third year. The student integrates client evaluation and intervention planning/implementation skills and develops entry-level competency in essential skills. The student has the opportunity to develop advanced competencies beyond entry-level where applicable.
4. Fieldwork II: 2 Full-time fieldwork experience and typically begins in September of the third year. The student integrates client evaluation and intervention planning/implementation skills and develops entry-level competency in essential skills. The student has the opportunity to develop advanced competencies beyond entry-level where applicable.

Clinical facilities that have occupational therapy clinical education agreements with TTUHSC may be used for Fieldwork sites. The M.O.T. Academic Fieldwork Coordinator provides detailed information for selection procedures. The student's selection of a Fieldwork site must be approved by the M.O.T. Academic Fieldwork Coordinator and/or the Program Director prior to the student enrolling in the applicable Fieldwork courses. The M.O.T. Academic Fieldwork Coordinator reserves the right not to approve a student's selection of any clinical education site. The M.O.T. Academic Fieldwork Coordinator may consult with M.O.T. faculty and the M.O.T. Program Director in order to determine a Fieldwork placement for any student.

As such, the M.O.T. Academic Fieldwork Coordinator further reserves the right to place the student at any clinical site determined necessary for successful completion of a student clinical fieldwork experience, or to not allow a student to enroll in a clinical fieldwork experience, for the following reasons:

1. The student is on Academic Probation.

2. The student has previously displayed behavior resulting in counseling using the *Generic Abilities*.

Admission to the Program

Admission to the M.O.T. Program occurs in late May of each year. Completion of a minimum of 90 semester hours of college credit including the completion of the Pre-Professional Curriculum is required prior to starting the program. Courses may be completed in any regionally accredited community college, college, or university. Individuals already holding a baccalaureate or graduate degree in other fields are eligible for admission.

Pre-Professional Curriculum

Below is the list of the courses that comprise the Pre-Professional Curriculum.

Required Prerequisites	
English	6 hours
Statistics	3 hours
Anatomy and Physiology (with lab)	6-8 hours
Physics, and/or Biomechanics, and/or Kinesiology	3-4 hours
Introductory Psychology	3 hours
Abnormal Psychology	3 hours
Introductory Sociology	3 hours
Developmental Psychology (across the lifespan)	3 hours
Electives*	58-60 hours
Total Prerequisites	**90 hours**

**For electives: We recommend courses focusing on human behavior, biomechanics, developmental psychology, physical/cultural/social environment or human occupations and/or on the skills needed in contemporary healthcare practice.*

For more information regarding course equivalents, see the TTUHSC School of Allied Health Sciences (SOAHS) Course Catalog for Texas Tech course equivalents or contact the Office of Admissions and Student Affairs.

GPA Requirements

A grade of C or better is necessary in each required pre-professional course. A minimum cumulative GPA of 2.7 on a 4.0 scale is required. A competitive overall GPA and science prerequisite GPA are a consideration for admissions. For persons with an existing baccalaureate or graduate degree, a minimum cumulative GPA of a 2.7 on a 4.0 scale is required for the last 90 semester hours.

The Application Process

Applications are considered twice a year for enrollment in the professional curriculum. Those applicants seeking early acceptance should submit their

application by October 15th; all other applications must be submitted by January 15th. It is in the best interest of the applicant to apply as early as possible.

To be considered for admission, the applicant must complete and submit the online application and the required documentation. Documentation to be submitted includes: transcripts, verification of observation/experience hours in occupational therapy settings, two recommendation letters, verification of required immunizations, verification of current CPR certification, and personal essay. The application is located online at http://techsis.tosm.ttu.edu/student/alliedhealth.htm.

Transcripts and coursework: Applicants must submit transcripts of all institutions attended. At the time of application, the student must demonstrate the ability to complete all pre-professional coursework prior to enrollment in the first semester the professional curriculum. At the time of application, all prerequisite coursework must be completed within the last seven years. Applicants whose science coursework is more than seven years old should contact the academic advisor in the Office of Admission and Student Affairs for decisions concerning course acceptability.

Experience: Applicants are expected to have some knowledge of the occupational therapy profession. This can be acquired in several ways: volunteer work, paid work and/or observation in occupational therapy settings/services. It is in the best interest of the applicant to complete a substantial number of experiential hours (a minimum of 40 hours), preferably in two different settings, prior to the application deadline for the program. Verification of observation/experience hours in occupational therapy settings must be submitted as a part of the application. Applicants are also encouraged to become familiar with the occupational therapy profession through exploring the professional literature and online sources.

Letters of Recommendation: Two letters of recommendation are required. Letters should be completed by professional personnel who have: (a) observed you during any related volunteer or paid work, (b) been previous or present instructors and/or counselors, or (c) been previous or present employers. One letter must be completed by an occupational therapist.

Immunizations and CPR: Verification of required immunizations and CPR for the Professional certification must be submitted prior to enrollment in professional curriculum, or preferably by the application deadline. CPR certification must be maintained throughout the professional program.

Personal essay: The personal essay should be submitted with the application.

Personal interview: To be considered an eligible applicant, one must meet the admission criteria and complete the application process prior to the deadline. Competitive applicants will be invited for a personal, on-campus interview

during the fall or spring semester. Submitting an application does not guarantee an interview.

Transfer Process

Students who wish to transfer to one of the Texas Tech University Health Sciences Center (TTUHSC) School of Allied Health Sciences (SOAHS) programs from an equivalent degree program must meet the specific program's admissions criteria and be subjected to the same admissions process as a traditional applicant. A transfer student may be eligible for waiver from classes taken at their previous institution. The student must provide supporting documents specified by the program for courses to be waived. The decision to allow the student to waive the course will be made by the Program Director on a case-by-case basis. Meeting minimum requirements does not guarantee admissions.

If the class is considered a course equivalent within the TTUHSC M.O.T. Program's curriculum, a TTUHSC-SOAHS course waiver/transfer request will be initiated by the Program Director. Courses that are recognized as a course equivalent will be awarded transfer credit. For those courses not recognized as a course equivalent, the applicant will be required to take the course identified in TTUHSC M.O.T. Program's curriculum.

Bachelor of Science in Health Science (B.S.H.S.) Degree

The B.S.H.S. degree is an option for students who enter the M.O.T. Program without an earned undergraduate degree. M.O.T. students have an opportunity to earn a bachelor's degree once they have completed: (a) all of the core curriculum requirements for a baccalaureate degree in the State of Texas, and (b) successfully complete at least one year of the M.O.T. Program coursework. Requirements and eligibility for this degree are handled by the School of Allied Health Sciences Office of Admissions.

Occupational Therapy Curriculum

Curriculum threads in the program include: fundamental concepts, clinical reasoning, theoretical foundations, research methods, occupational therapy processes, and professional practice. The following courses are offered once each year and must be taken in sequence. Any deviation from this sequence requires departmental chair approval.

FIRST YEAR

M.O.T. 1 Summer Semester

AHOT 5500	Human Anatomy
AHOT 5209	Applied Kinesiology in Occupational Therapy
AHOT 5111	Introduction to Occupational Therapy

Total Hours = 8 hours

M.O.T. 1 Fall Semester

AHOT 5227	Introduction to Clinical Reasoning
AHOT 5229	Conditions in Occupational Therapy: Part 1
AHOT 5309	Applying Neuroanatomy in Occupational Therapy
AHOT 5310	Theory and Foundations of Occupational Therapy
AHOT 5313	Introduction to Evaluation and Intervention in Occupational Therapy
AHOT 5316	Research Process in Occupational Therapy

Total Hours = 16 hours

M.O.T. 1 Spring Semester

AHOT 5317	Hand and Upper Extremity Rehabilitation
AHOT 5329	Conditions in Occupational Therapy: Part 2
AHOT 5319	Occupational Performance Throughout the Lifespan
AHOT 5311	Overview and Analysis of Occupational Therapy Assessment
AHOT 5207	Psychosocial Intervention in Occupational Therapy
AHOT 5217	Planning Occupational Therapy Research

Total Hours = 16 hours

SECOND YEAR

M.O.T. 2 Summer Session

AHOT 5105	Clinical Reasoning for Fieldwork
AHOT 5213	Psychosocial Group Process
AHOT 5112	Research Seminar
AHOT 5314	Health and Community Settings

Total Hours = 7 hours

M.O.T. 2 Fall Session

AHOT 5106	Fieldwork I: 1
AHOT 5212	Occupational Therapy Practice: Assistive Technology
AHOT 5449	Occupational Assessment and Intervention in Children and Adolescents
AHOT 5450	Occupational Assessment and Intervention in Adults and Older Adults
AHOT 5113	Research Seminar II

Total Hours = 12 hours

M.O.T. 2 Spring Semester

AHOT 5200	Fieldwork I:2 (Scheduled for December/January)
AHOT 5101	Clinical Reasoning for Practice
AHOT 5315	Organization and Management in Occupational Therapy
AHOT 5320	Occupational Therapy Practicum
	Section 1: Adult Rehab (4-10 students)
	Section 2: Hand (4-8 students)
	Section 3: Neuro (2-5 students)
	Section 4: Pediatrics (4-12 students)
	Section 5: Mental Health (4-10 students)
AHOT 5226	Professional Development in Occupational Therapy

Total Hours = 11 hours

THIRD YEAR

Third Summer Session

AHOT 5931	Fieldwork II: 1

Total Hours = 9 hours

Third Fall Session

AHOT 5932	Fieldwork II: 2

Total Hours = 9 hours

Total Curriculum Hours = 89 hours

Course Descriptions

AHOT 5071 Fieldwork II: Specialization (3-9:0:3-9) Prerequisites: AHOT 5631, 5632 Optional additional full-time, supervised clinical experience in an area/facility of the student's choice. Student levels of learning in this course focus on the following: knowledge/comprehension, application, analysis, and synthesis/evaluation.

AHOT 5072 Special Topics in Occupational Therapy (1-3:1-3:0) Selected topics of interest to occupational therapy. Please note that this course is not offered every year.

AHOT 5073 Individual Projects (1-3:1-3:0) Approval of instructor and Program Director. Provides an opportunity for students to undertake a special project in an area of interest.

AHOT 5101 Clinical Reasoning for Practice (1:1:0) This course will prepare students for their level II fieldwork rotations and will require students to utilize advanced clinical reasoning skills. This course will address the shift from classroom to clinic, supervision, dealing with fieldwork related problems, and preparing for the national certification exam. Clinical reasoning will focus on procedural, interactive, conditional, ethical and pragmatic reasoning.

Student levels of learning in this course focus on the following: knowledge/ comprehension, application, analysis, synthesis, and evaluation.

AHOT 5105 Clinical Reasoning for Fieldwork (1:1:0) This course focuses on preparing students for their first fieldwork rotations. Professional behavior, ethics, supervision, clinical reasoning, and tools/strategies for a successful fieldwork experience will be utilized in this course. Student levels of learning in this course focus on application and analysis.

AHOT 5106 Fieldwork I: 1 One week (40 hours), supervised, opportunity to observe clinical practice and to participate, within limits, in the occupational therapy process with individuals and groups. Student levels of learning in this course focus on knowledge/comprehension, application, and analysis.

AHOT 5111 Introduction to Occupational Therapy (1:0:3) Introduction to key terms and concepts used in occupational therapy practice. Course includes self-paced learning and testing for medical terminology. This course introduces students to OT professional practice, OT framework, and prepares them for learning theoretical foundations and performing activity analysis. Student levels of learning in this course focus on knowledge and comprehension.

AHOT 5112 Research Seminar (1:0:3) This course offers the student hands-on experience with the research process. Students will complete the IRB approval process and begin process of data collection and analysis as part of collaborative research project conducted by a research team (consisting of students, a faculty member, and occupational therapy clinicians in the community). This is a writing intensive course. Student levels of learning in this course focus on the following: knowledge/ comprehension, application, analysis, and synthesis/evaluation.

AHOT 5113 Research Seminar II (1:0:3) This course is a continuation Research Seminar I. Students will complete data gathering and analysis and will prepare results and discussion of topic for dissemination of information. This is a writing intensive course. Student levels of learning in this course focus on the following: knowledge/ comprehension, application, analysis, and synthesis/evaluation.

AHOT 5200 Fieldwork I: 2 Two weeks (80 hours), supervised, opportunity to observe clinical practice and to participate, within limits, in the occupational therapy process with individuals and groups. As possible, this will allow students to explore occupational therapy contributions in "non traditional" or "role emerging" settings. Student levels of learning in this course focus on knowledge/ comprehension, application, and analysis.

AHOT 5207 Psychosocial Interventions in Occupational Therapy (2:2:0) This course introduces students to concepts and methods for providing individual and group-based intervention for persons with mental illness and persons experiencing psychosocial stressors. Topics will include, but are not limited, to: crisis intervention, therapeutic use of self, specific intervention strategies (i.e. stress management, relaxation, living skills training, etc.), group dynamics,

types of groups, and group protocol development. Student levels of learning in this course focus on knowledge/ comprehension, application, and analysis.

AHOT 5209 Applied Kinesiology in Occupational Therapy (2:1:3) The course looks at analysis of normal human movement, including explanations of how movements are produced at specific joints and their influence on occupation. Student levels of learning in this course focus on knowledge/comprehension, and application.

AHOT 5212 Occupational Therapy Practice: Assistive Technology (2:1:3) This course includes assessments and interventions involving assistive technology. Topics will include, but are not limited, to assistive devices, seating systems, various switches, communication augmentative systems, environmental controls, home assessments, ergonomic assessments, and computer systems. Student levels of learning in this course focus on knowledge/comprehension, application, analysis, synthesis, and evaluation.

AHOT 5213 Psychosocial Group Process (1:1:0) This course focuses on the application of evaluation, intervention (e.g. individual and group), and outcome processes utilized in a variety of psychosocial practice settings. Instruction and lab experiences provide opportunities for students to practice therapeutic group skills as they develop and implement session plans for a group of individuals. Student levels of learning in this course focus on the following: application, analysis, synthesis, and evaluation.

AHOT 5217 Planning Occupational Therapy Research (2:2:0) Research teams will develop a proposal for a beginning-level clinical research project and submit an application to the Institutional Review Board for approval of that proposal. This course is writing intensive. Student levels of learning in this course focus on knowledge/comprehension, application, and analysis.

AHOT 5226 Professional Development in Occupational Therapy (2:2:0) Students will identify current policy issues in the various contexts in which occupational therapy services are provided and how to advocate for the profession. Students will be introduced to the grant writing process and benefits of securing a grant. This course will address ongoing professional development and responsibilities including the benefits of professional state and national organizations. Student levels of learning in this course focus on the following: knowledge/comprehension, application, analysis, synthesis, and evaluation.

AHOT 5227 Introduction to Clinical Reasoning (2:2:0) This course focuses on the exploration of illness and/or disability experiences from the perspectives of the individual, healthcare professional, and society. Students will examine the influences of culture, poverty and ethics on disability through conditional and interactive reasoning using case studies and personal reflection. Student levels of learning in this course focus on knowledge/comprehension, and application.

AHOT 5229 Conditions in Occupational Therapy: Part 1 (2:2:0) This course provides an overview of the etiology, epidemiology, signs and symptoms, associated conditions/complications, prognosis, and medical management of disorders and injuries in children and adults relevant to occupational therapy practice. This course focuses on conditions commonly encountered in pediatric and mental health practice settings. Students examine areas of occupation, occupational performance, and occupational roles potentially affected as a result of the condition or complications of the condition. Student levels of learning in this course focus on knowledge/comprehension, application, and analysis.

AHOT 5309 Applying Neuroanatomy in Occupational Therapy (3:3:0) A study of the structure and function of the human nervous system. Discussion of neurological diagnoses and theories for treatment. Student levels of learning in this course focus on knowledge/comprehension, and application.

AHOT 5310 Theory and Foundations of Occupational Therapy (3:3:0) This course examines the philosophical, theoretical, and professional concepts that are foundational to occupational therapy. Students learn and apply several occupation-based theories, frames of references, and treatment approaches utilized in occupational therapy practice. Student levels of learning in this course focus on the following: knowledge/comprehension, application, analysis, synthesis, and evaluation.

AHOT 5311 Overview and Analysis of Occupational Therapy Assessment (3:2:3) This course provides the student with an overview and analysis of various assessment measures used in occupational therapy practice. Students learn components of critiquing tests and measures which include the type of assessment (i.e. norm-referenced, criterion referenced, etc.), format (i.e. interview, self –report, etc.) applicable population, psychometric properties (i.e. reliability, validity, etc.) and utility (i.e. eligibility, outcomes, etc.). Students also practice the administration of both standardized and non-standardized assessments as well as the interpretation and documentation of assessment results. Student levels of learning in this course focus on knowledge/comprehension, application, and analysis.

AHOT 5313 Introduction to Evaluation and Intervention in Occupational Therapy (3:2:3) Introduction to key OT practice skills including basic evaluation techniques, clinical documentation, clinical safety, physical handling techniques, interventions, and splinting. Student levels of learning in this course focus on knowledge/comprehension and application.

AHOT 5314 Health and Community Settings (3:2:3) Reviews trends affecting healthcare system delivery and implications for community practice. An appreciation for difference in cultural and social systems is emphasized. Evaluation of community needs, alternative settings, practice expansion, and consultation skills are discussed. Student levels of learning in this course focus on knowledge/comprehension, application, and analysis.

AHOT 5315 Organization and Management in Occupational Therapy (3:3:0) Overview of management theories, budgeting, marketing, writing a business plan, strategic planning, performance appraisals, interviewing, billing and OT procedures, insurance and payment systems, and documentation issues. Prepares students in professional practice and theoretical background for management or supervision in the healthcare field. Student levels of learning in this course focus on the following: knowledge/comprehension; application; analysis; synthesis; and evaluation.

AHOT 5316 Research Process in Occupational Therapy (3:3:0) This course is the first in a series of research courses designed to prepare the student as both a consumer of research and a participant in beginning-level research. Content includes an introduction to the research process, resources necessary for research in occupational therapy, evaluation and use of the professional literature relevant to occupational therapy practice, qualitative and quantitative design and analysis (including inferential statistics) methods. Student levels of learning in this course focus on knowledge/comprehension and application.

AHOT 5317 Hand and Upper Extremity Rehabilitation (3:2:3) This course integrates anatomy, kinesiology, assessment, and intervention principles for the treatment of upper extremity and hand conditions. Common injuries and conditions for the shoulder, elbow, forearm, wrist, and hand are covered. Advanced splinting skills are taught. Student levels of learning in this course focus on application and analysis.

AHOT 5319 Occupational Performance Throughout the Lifespan (3:3:0) Focus is on the skill progressions in typical and atypical development and it's impact on occupational performance across the lifespan. Students will be introduced to various occupational therapy practice settings that individuals may encounter throughout their lifespan when experiencing challenges in areas of occupation. Student levels of learning in this course focus on knowledge/comprehension and application.

AHOT 5320 Occupational Therapy Practicum (3:2:3) This course allows students to select an area of focus (adult rehab, pediatrics, mental health, adult neuro, or hand rehab) and spend lab hours in the specific area. Students will meet weekly as a group in a seminar format to discuss their individual lab experiences. Case studies will be used to integrate clinical reasoning and professional practice. Student levels of learning in this course focus on the following: knowledge/comprehension, application, analysis, and synthesis/evaluation.

AHOT 5329 Conditions in Occupational Therapy: Part 2 (3:3:0) Second course in an overview of the etiology, signs and symptoms, associated conditions/complications, prognosis and medical management of disorders and injuries in children and adults relevant to occupational therapy practice. This course focuses on conditions in several broad areas: neurological conditions, spinal cord injury, cancer, burns, and universal/safety precautions for healthcare providers. Examines areas of occupation, occupational performance, and occupational roles

potentially affected as a result of the condition or complications of the condition. Students will apply documentation skills to begin differentiating anticipated therapy outcomes and long and short-term goals for a variety of conditions. Student levels of learning in this course focus on knowledge/comprehension, application, and analysis

AHOT 5449 Occupational Assessment and Intervention in Children and Adolescents (4:3:3) Focus is on how typical and atypical sequences are used in pediatric occupational therapy assessment and treatment. Lab experiences involve the observation and assessment of children. Clinical reasoning and occupational therapy processes focus on documentation of assessment findings, goal development, and determination of therapy interventions based on assessment findings. Student levels of learning in this course focus on the following: knowledge/comprehension, application, analysis, and synthesis/evaluation.

AHOT 5450 Occupational Assessment and Intervention in Adults and Older Adults (4:3:3) This course builds on student knowledge in earlier courses, applying specific OT techniques to diagnostic areas and individual conditions found in adults and older adults. Instruction and laboratory practice incorporates active learning to cultivate critical thinking skills needed in practice. Through competency checklists and treatment plans completed in class and in the clinic, students will utilize clinical reasoning skills, occupational therapy processes, and professionalism required for fieldwork. Student levels of learning in this course focus on the following: knowledge/comprehension, application, analysis, and synthesis/evaluation.

AHOT 5500 Human Anatomy (5:3:6) Integrated study of gross human anatomy embodying gross morphology and coordinating with developmental and histological aspects of the body. Included is regional dissection with emphasis on the musculoskeletal, nervous, circulatory and respiratory. Lays a scientific foundation for other courses in the curriculum. Human cadaver dissection is the primary lab activity. Student levels of learning in this course focus on knowledge/comprehension.

AHOT 5931 Fieldwork II: 1 (9:0:9) Prerequisites: Successful completion of all previous professional and fieldwork courses and approval of Program Director. Full-time, supervised clinical experience for 12 weeks (480 hours). Development of knowledge and skills needed for entry-level practice. Use of the occupational therapy process and clinical reasoning skills, working with individuals and groups. Introduction to clinical administration, supervision, quality assurance, consultation, and research. Student levels of learning in this course focus on knowledge/comprehension, application, analysis, and synthesis/evaluation.

AHOT 5932 Fieldwork II: 2 (9:0:9) Prerequisites: Successful completion of all previous professional and fieldwork courses and approval of Program Director. Full-time, supervised clinical experience for 12 weeks (480 hours). Development of knowledge and skills needed for entry-level practice. Use of the occupational therapy process and clinical reasoning skills, working with individuals and groups. Introduction to clinical administration, supervision, quality assurance, consultation, and research. Student levels of learning in this course focus on knowledge/comprehension, application, analysis, and synthesis/evaluation.

Master of Physical Therapy

The PT Profession

The profession of physical therapy developed as a result of societal needs during the world wars and the poliomyelitis epidemics in the beginning of the 20th century. Today, physical therapists practice in a variety of settings with unprecedented levels of professional responsibility. Typical settings in which physical therapists practice include outpatient clinics, hospitals, rehabilitation facilities, long-term care facilities, patients' homes, schools, industrial settings, and fitness/wellness centers. Physical therapists are an integral part of the healthcare team managing a wide variety of patients across the lifespan in many different settings.

Physical therapy is a health profession that focuses on examining and evaluating patients in order to determine a diagnosis, prognosis, and intervention. Physical therapists help alleviate impairments and functional limitations to restore a quality of life and participation in society. Restoration of function is accomplished through designing and implementing evidence-based patient specific therapeutic interventions in patients with acute and chronic injury, disease, and physical disability. Physical therapist collaborate with a variety of other professionals through consultation, education, and research to provide patient/client services. Physical therapists also act as consultants for businesses, public and private organizations, and to their community to promote health, wellness/fitness, and prevention. Physical therapist practice relies on the application of a well-developed body of scientific and clinical knowledge from the basic, behavioral, clinical and social sciences. In addition, physical therapists are investigators in basic and clinical research, and serve as both academic and clinical faculty members at universities.

After graduating from an accredited physical therapy professional education program, physical therapist candidates must pass a national licensure examination in order to practice physical therapy. Additional licensure requirements for physical therapists vary from state to state, according to practice acts and state regulations that govern the practice of physical therapy.

Program Description

The Texas Tech University Health Sciences Center's (TTUHSC) Physical Therapy program is located within the School of Allied Health Sciences and the Department of Rehabilitation Sciences. The TTUHSC Physical Therapy program has been accredited by the Commission on Accreditation in Physical Therapy (CAPTE) since its inception and is currently accredited through December 31st, 2018.

The philosophy of the M.P.T. program is to prepare students to be engaged members of the profession and the healthcare delivery system. The faculty is committed to providing opportunities for students to become responsible

physical therapists in a broad range of activities, roles, and settings in the current and future healthcare environment. We expect that a graduate of our program will exhibit a commitment to lifelong learning and will excel as a practitioner of evidence-based physical therapy.

The faculty of the M.P.T. program believe that the educational process extends beyond the physical therapy curriculum to various life experiences. It is our intention to develop in the student a sense of responsibility to society, an awareness of his or her duties as a healthcare professional, provide motivation to continue personal and professional growth, and to foster a desire to contribute to the profession of physical therapy.

The three-year TTUHSC physical therapists professional education program has two components: academic and clinical. The academic component, via classroom and laboratory experiences, includes biological and physical sciences, behavioral sciences, and clinical sciences. Clinical education, which consists of 32 weeks of clinical experience under the supervision of a licensed physical therapist, allows the student to apply the knowledge, skills, attitudes, and behaviors learned during the academic component. The clinical experiences are integrated into the curriculum, which allows the students to practice professional behaviors as well as skills soon after completing the corresponding academic course work. Clinical experiences focus on basic, musculoskeletal, and neurologic skills. Students also participate in a clinical experience designed to meet individual interests, which may include pediatrics, sports medicine, women's health, etc. Sites for clinical experiences are located primarily throughout Texas and the Southwestern US, but can be located anywhere in the US mainland. Students should anticipate additional costs during their clinical experiences. Students must pass a Criminal Background Check in order to participate in clinical experiences. Many clinical education sites also require a drug screening prior to beginning the experience.

The M.P.T. program is housed on three campuses within the TTUHSC system: Amarillo, Lubbock, and Odessa. Class sizes at all campuses are restricted to ensure optimal student/instructor ratios and to maximize comprehensive instructional and laboratory experiences. Faculty and students on all campuses communicate with each other in person, via a state-of-the-art interactive multimedia environment, by e-mail, and by telephone. Students entering the program should possess basic computer skills, including the use of e-mail, accessing the internet, and the use of word processing programs. Computer labs are located on each campus to meet the information technology needs of the student.

Admission to the Program

The M.P.T. program is being replaced by the D.P.T. program. Students interested in applying to the physical therapy program at TTUHSC must apply to the D.P.T. program. See admission requirements for the D.P.T. program, page 126.

Bachelor of Science in Health Science (B.S.H.S.) Degree

The B.S.H.S. degree is an option for students who enter the M.P.T. Program without an earned undergraduate degree. M.P.T. students have an opportunity to earn a bachelor's degree once they have completed: (a) all of the core curriculum requirements for a baccalaureate degree in the State of Texas, and (b) successfully complete at least one year of the M.P.T. Program coursework. Requirements and eligibility for this degree are handled by the School of Allied Health Sciences Office of Admissions.

Physical Therapy Curriculum

The following courses are offered once each year during the semester listed and must be taken in sequence. Consequently, each course must be successfully completed before the student is allowed to progress in the curriculum.

FIRST YEAR

Summer Semester* Course		Credit Hours
AHPT 5204	Healthcare Issues and Ethics	2
AHPT 5202	Principles of Kinesiology	2
AHPT 5500	Human Anatomy	5
		Total Hours = 9

**All students attend the first summer session at the Lubbock campus.*

Fall Semester Course		Credit Hours
AHPT 5205	Neuroscience I	2
AHPT 5305	Clinical Kinesiology	3
AHPT 5405	Pathophysiology	4
AHPT 5505	Patient Evaluation and Management I	5
		Total Hours = 14

Spring Semester Course		Credit Hours
AHPT 5104	Clinical Education	1
AHPT 5231	Clinical Reasoning I	2
AHPT 5206	Pharmacology	2
AHPT 5211	Therapeutic Exercise	2
AHPT 5304	Clinical Applied Physiology	3
AHPT 5506	Patient Evaluation & Management II	5
		Total Hours = 15

SECOND YEAR

Summer Semester Course		Credit Hours
AHPT 5436	Clinical Experience I	4
AHPT 5245	Orthotic Devices (online)	2
		Total Hours = 6

Fall Semester Course		Credit Hours
AHPT 5122	Residual Limb Care and Prosthetics	1
AHPT 5232	Clinical Reasoning II	2
AHPT 5227	Current Medical Diagnosis and Treatment I	2
AHPT 5223	Research Process I	2
AHPT 5325	Physical Therapy Administration	3
AHPT 5430	Musculoskeletal Evaluation and Management I	4
		Total Hours = 14

Spring Semester Course		Credit Hours
AHPT 5124	Research Process II	1
AHPT 5320	Early Growth and Development	3
AHPT 5335	Musculoskeletal Evaluation and Management II	3
AHPT 5420	Neuroscience II	4
AHPT 5438	Clinical Experience II	4
		Total Hours = 15

THIRD YEAR

Summer Semester Course		Credit Hours
AHPT 5228	Motor Control and Learning	2
AHPT 5237	Current Medical Diagnosis and Treatment II	2
AHPT 5343	Cardiopulmonary Evaluation and Management	3
AHPT 5321	Adult Development and Aging	3
AHPT	Electives- (not required)	
		Total Hours = 10

Fall Semester Course		Credit Hours
AHPT 5128	Research Process III	1
AHPT 5233	Clinical Reasoning III	2
AHPT 5243	Current Medical Diagnosis and Treatment III	2
AHPT 5341	Developmental Evaluation and Management	3
AHPT 5444	Adult Neurorehabilitation	4
		Total Hours = 12

Spring Semester Course		Credit Hours
AHPT 5446	Clinical Experience III	4
AHPT 5448	Clinical Experience IV	4
AHPT 5234	Graduate Seminar	2
		Total Hours = 10

Total Curriculum Hours=105

During professional studies, students are required to adhere to all program policies and academic and behavioral guidelines as stated in the TTUHSC Student Affairs Handbook- Code of Professional and Academic Conduct and the DRS Student Handbook. Expenses incurred on/for clinical rotations (such as, but not limited to: housing, transportation, immunizations and criminal background check) are the responsibility of the student.

Course Descriptions

AHPT 5099 Independent Study in Physical Therapy (1-6 hours) This course may incorporate a structured review of previously presented classroom and/or laboratory experiences, or selected participation in unique Independent Study. A literature review and discussion, clinical observation, and/or hands-on clinical experience may be required. Each independent study is designed to meet the student's specific needs.

AHPT 5104 Clinical Education (1:1:0) This course emphasizes the different forms of communication necessary for the physical therapist student to succeed as a professional. Documentation of patient care, interpersonal relationships with patients and professionals, and patient education principles and techniques are emphasized. Grading requirements and documentation of the student's upcoming clinical education experience are included topics.

AHPT 5122 Residual Limb Care and Prosthetics (1:1:0) This course includes the study of technological materials and devices used in rehabilitation of patients with residual limbs, including the study of biomechanics, gait, and proper fit of upper and lower extremity prostheses. Selection criteria for prosthetics and physical therapy management for persons with recent amputations are included.

AHPT 5124 Research Process II (1:1:0) This course focuses on developing skills to critically read and analyze peer-reviewed scientific literature.

AHPT 5128 Research Process III (1:1:0) This course focuses on reviewing and synthesizing scientific literature related to the profession of physical therapy. Students develop a comprehensive literature review for evidence needed to support examination and interventions in physical therapy or other roles of the physical therapist.

AHPT 5150 Women's Physical Therapy (1:1:0) This is an elective course that introduces students to the unique pathological conditions and intervention strategies related to women's health.

AHPT 5152 Seminar in Physical Therapy I (1:1:0) This is an elective seminar course examining issues in the field of physical therapy. Specific subject matter varies.

AHPT 5154 Seminar in Physical Therapy II (1:1:0) This is an elective seminar course examining issues in the field of physical therapy. Specific subject matter varies.

AHPT 5156 Seminar in Physical Therapy III (1:1:0) This is an elective seminar course examining issues in the field of physical therapy. Specific subject matter varies.

AHPT 5202 Principles of Kinesiology (2:1:3) This course focuses on applied human anatomy and basic kinesiology with emphasis on normal form and function as it relates to physical therapy practice. Lab experiences focus on surface anatomy and palpation.

AHPT 5204 Healthcare Issues and Ethics (2:2:0) This course includes the study and application of legal guidelines and ethical principles as they relate to healthcare physical therapy practice. Special emphasis is placed on ethical dilemmas relevant to the practice of physical therapy including current issues and problems affecting healthcare.

AHPT 5205 Neuroscience I (2:2:0) This course provides an introduction to nervous system function and pathophysiology. An emphasis is placed on axon physiology and its relevance to electrical modalities, synaptic neurotransmission, and nervous system anatomy. Students are introduced to pathologies of the nervous system and corresponding physical therapy interventions.

AHPT 5206 Pharmacology (2:2:0) This course focuses on the study of pharmacology and its relationship to pathophysiology, emphasizing implications for the practice of physical therapy. Basic principles of pharmacology and pharmacokinetics are addressed with focus on the mechanism of action and effects of specific drugs on the musculoskeletal, cardiovascular and central nervous system.

AHPT 5211 Therapeutic Exercise (2:1:3) This course focuses on prescriptions and interventions using various therapeutic exercise techniques. Lab experiences focus on teaching therapeutic exercises to patients in various settings.

AHPT 5223 Research Process I (2:2:0) This course introduces students to fundamentals of experimental research design and statistics as they apply to physical therapy practice and scientific literature. Students are instructed on searching the scientific literature with electronic databases.

AHPT 5227 Current Medical Diagnosis and Treatment I (2:2:0) This course examines the pathology, medical diagnosis process, and medical and surgical interventions of patients with musculoskeletal conditions that are commonly seen by physical therapists.

AHPT 5228 Motor Control and Learning (2:2:0) This course emphasizes the principles and various theories of motor control and motor learning and their application to physical therapist practice.

AHPT 5231 Clinical Reasoning I (2:1:3) This course is a structured, interactive review of previously presented classroom material. The focus is on synthesizing materials learned thus far and applying the information to clinical cases. The course includes an on-line supplementary review of information in preparation for a successful licensure examination process.

AHPT 5232 Clinical Reasoning II (2:1:3) This course is a structured, interactive review of previously presented classroom material. The focus is on synthesizing materials learned thus far and applying the information to clinical cases. The course includes an on-line supplementary review of information in preparation for a successful licensure examination process.

AHPT 5233 Clinical Reasoning III (2:1:3) This course is a structured, interactive review of previously presented classroom material. The focus is on synthesizing materials learned thus far and applying the information to clinical cases. The course includes an on-line supplementary review of information in preparation for a successful licensure examination process.

AHPT 5234 Graduate Seminar (2:2:0) This course is designed to prepare students for the licensure examination and entering the work force. The course includes an on-line supplementary review of information in preparation for a successful licensure examination process.

AHPT 5237 Current Medical Diagnosis and Treatment III (2:2:0) This course examines the pathology, medical diagnosis process, and medical and surgical interventions of patients with neuromuscular conditions that are commonly seen by physical therapists.

AHPT 5243 Current Medical Diagnosis and Treatment II (1:1:0) This course examines the pathology, medical diagnosis process, and medical and surgical interventions of patients with cardiopulmonary conditions that are commonly seen by physical therapists.

AHPT 5245 Orthotic Devices (2:2:0) The course includes the study of materials, biomechanics, selection, and proper fit of upper extremity, lower extremity and spinal orthotics. Wheelchair prescription and fitting are included. Introduction to powered mobility options, environmental controls, and augmentative communication devices are included.

AHPT 5250 Spanish for Physical Therapists (2:2:0) This is an elective self-study course that introduces physical therapy students to basic Spanish terminology and communication as it relates to physical therapy.

AHPT 5304 Clinical Applied Physiology (3:2:3) This course includes the study of exercise physiology, including normal physiological responses to acute and chronic exercise, and physical training principles. This course also emphasizes concepts of health promotion and wellness.

AHPT 5305 Clinical Kinesiology (3:3:0) This course focuses on the study of human movement with integration of biomechanics fundamental to understanding exercise concepts and musculoskeletal evaluation. Ergonomics, basic postural, and gait assessment are included.

AHPT 5320 Early Growth and Development (3:3:0) This course focuses on the study of human growth and development issues and theories. The emphasis is on typical and physical growth and motor development, and on developmental testing. The course includes the study of social-emotional, cognitive, and language development and cultural influences on growth and development.

AHPT 5321 Adult Development and Aging (3:3:0) This course focuses on the physical, psychological, emotional, cultural and socioeconomic influences involved with adult development. Emphasis is placed on age-related changes and current literature regarding concepts in this area.

AHPT 5325 Physical Therapy Administration (3:3:0) This course provides initial personnel management perspectives and skills needed by the entry-level physical therapist in a clinical setting. It focuses on organizing, directing, developing, and measuring the management and entrepreneurial components of physical therapist practice. Billing and coding procedures are included.

AHPT 5335 Musculoskeletal Evaluation and Management II (3:2:3) This course focuses on physical therapy examination, evaluation, prognosis, intervention, and outcomes for patients with musculoskeletal disorders of the spine, based on current research, evidence, and practice guidelines. Lab experience focuses on specific tests and measures and interventions.

AHPT 5341 Developmental Evaluation and Management (3:2:3) This course focuses on physical therapy examination, evaluation, prognosis, intervention, and outcomes for children with neuromuscular, musculoskeletal, or developmental disorders based on current research, evidence, and practice guidelines. The course includes the requirements for physical therapy practice in specialized settings such as neonatal intensive care, Birth to Three programs, and public schools. Lab experience focuses on specific tests and measures and interventions.

AHPT 5343 Cardiopulmonary Evaluation and Management (3:2:3) This course focuses on physical therapy examination, evaluation, prognosis, intervention, and outcomes for patients with cardiopulmonary disorders based on current research, evidence, and practice guidelines. Lab experience focuses on specific tests and measures and interventions.

AHPT 5405 Pathophysiology of Body Systems (4:4:0) This course focuses on general physiological principles of diseases and disorders that affect organ systems of the body. There is an emphasis on integrating the interrelationship between different organ systems in the context of clinical correlations relevant to physical therapists. Neuromuscular, musculoskeletal, cardiopulmonary, endocrinology, and immune system and body fluids and electrolytes, neoplasias, and genetic disorders will be discussed from molecular and systems perspectives.

AHPT 5420 Neuroscience II (4:3:3) This course focuses on the functional relationships of neuroanatomical structures in the human nervous system. Topics include the organization of the nervous system in terms of development, mechanisms of processing of sensory and motor information (including receptors and reflexes), and pathological conditions of the nervous system.

AHPT 5430 Musculoskeletal Evaluation and Management I (4:2:6) This course focuses on physical therapy examination, evaluation, prognosis, intervention, and outcomes for patients with musculoskeletal disorders in the extremities based on current research, evidence, and practice guidelines. Lab experience focuses on specific tests and measures and interventions.

AHPT 5436 Clinical Experience I (4:0:12) This eight-week full-time clinical experience allows the student to practice acquired skills and learn additional basic clinical skills, while acting as a student physical therapist under the direct supervision of a licensed professional. The student performs all aspects of patient care and other professional duties, and may practice in an inpatient or outpatient setting. All prior coursework prepares the student, and additional information and skills are gained in the clinic. Instructor approval required.

AHPT 5438 Clinical Experience II (4:0:12) This eight-week full-time clinical experience allows the student to practice acquired skills and learn additional clinical skills emphasizing skills needed to treat patients who have musculoskeletal disorders, while acting as a student physical therapist under the direct supervision of a licensed professional. The student performs all aspects of patient care and other professional duties, and may practice in an inpatient or outpatient setting. All prior coursework prepares the student, and additional information and skills are gained in the clinic. Instructor approval required.

AHPT 5444 Adult Neurological Assessment and Rehabilitation (4:3:3) This course focuses on physical therapy examination, evaluation, prognosis, intervention, and outcomes for adult patients with neuromuscular disorders based on current research, evidence, and practice guidelines. Lab experience focuses on specific tests and measures and interventions.

AHPT 5446 Clinical Experience III (4:0:12) This eight-week full-time clinical experience allows the student to practice all previously acquired skills and learn additional clinical skills as the culmination of physical therapy training, while acting as a student physical therapist under the direct supervision of a

licensed professional. The student performs all aspects of patient care and other professional duties, and may practice in an inpatient or outpatient setting. The student practices in either a neurologic setting or in an elective setting selected according to the student's individual needs and desires. All prior coursework prepares the student, and additional information and skills are gained in the clinic. Instructor approval required.

AHPT 5448 Clinical Experience IV (4:0:12) This eight-week full-time clinical experience allows the student to practice all previously acquired skills and learn additional clinical skills as the culmination of physical therapy training, while acting as a student physical therapist under the direct supervision of a licensed professional. The student performs all aspects of patient care and other professional duties, and may practice in an inpatient or outpatient setting. The student practices in either a neurological setting or in an elective setting selected according to the student's individual needs and desires. All prior coursework prepares the student, and additional information and skills are gained in the clinic. Instructor approval required.

AHPT 5500 Human Anatomy (5:3:6) This course is the integrated study of human gross anatomy including gross morphology, coordinated with developmental and histological aspects of the body. Regional dissection is included with emphasis on the integumentary, musculoskeletal, nervous, circulatory, and respiratory systems.

AHPT 5505 Patient Evaluation and Management I (5:3:6) This course focuses on basic examination skills and tests and measures used in a variety of settings. It includes beginning level intervention skills and principles of care used in acute care settings, including medical terminology and basic documentation skills. Beginning-level problem solving skills are developed using case studies.

AHPT 5506 Patient Evaluation and Management II (5:3:6) This course focuses on examination, tests and measures, and interventions used in a variety of settings. The course emphasizes the use of physical agents and modalities. This course includes the care of burns and wounds.

Doctor of Physical Therapy - Bridge Program

*** only avilable to currently enrolled TTUHSC M.P.T. students**

Program Description

The Texas Tech University Health Sciences Center's (TTUHSC) Physical Therapy program is located within the School of Allied Health Sciences and the Department of Rehabilitation Sciences. The TTUHSC Physical Therapy program has been accredited by the Commission on Accreditation in Physical Therapy (CAPTE) since its inception and is currently accredited through December 31st, 2018.

Increases in professional responsibility of the physical therapist created a need for continued development of physical therapy professional educational programs across the United States. This development led to the transition of physical therapy programs from bachelor's degree programs to master's degree programs and finally to doctoral degree programs. The TTUHSC School of Allied Health Sciences obtained approval to award the Doctor of Physical Therapy (D.P.T.) degree from the Texas Higher Education Coordinating Board in July of 2007.

The D.P.T. program is replacing the existing Master of Physical Therapy (M.P.T.) program. The Doctor of Physical Therapy Bridge program will be available to students enrolled in the TTUHSC M.P.T. program at the time of implementation of the TTUHSC D.P.T. program and will include classes of 2008, 2009, and 2010). The D.P.T. bridge program is not available to M.P.T. classes that have graduated prior to 2008. M.P.T. program students will be given the option to graduate with the M.P.T. degree (as scheduled) or continue their education for one additional semester in order to earn the entry-level D.P.T. degree. Students who pursue the D.P.T bridge program will not be granted a M.P.T. degree, since the degree credits may not be counted for both degrees. Consequently, students who enter into the D.P.T. bridge program will not be qualified to sit for licensure until the fall of the year they graduate. Students obtaining the D.P.T. degree must, have completed a bachelor's degree prior to completion of the D.P.T. requirements. This bachelor's degree could include the Bachelor of Science in Health Sciences (B.S.H.S.) degree currently offered to M.P.T. students who matriculated into the M.P.T. program without a bachelor's degree, and meet eligibility requirements.

The TTUHSC D.P.T. Bridge program is one program located on three campuses: Lubbock, Amarillo, and Odessa. Class sizes at all campuses are restricted to ensure optimal student/instructor ratios and to maximize comprehensive instructional and laboratory experiences. Faculty and students on all campuses communicate with each other in person, via a state-of-the-art interactive multimedia environment, by e-mail, and by telephone.

Essential Functions

A student admitted into the D.P.T. bridge program must meet the same essential functions that were required for the M.P.T. program and are necessary to be able to obtain employment. These are established minimum physical and mental guidelines necessary for the D.P.T. program. All students must submit verification of their ability to perform at or above the minimum physical and mental guidelines established by the Department of Rehabilitation Sciences (DRS).

Current students may find a list of the essential functions for the D.P.T. program in the DRS Student Handbook. (http://www.ttuhsc.edu/sah/current/handbooks.aspx).

Admission To The Program

The D.P.T. bridge program begins in late May and ends in mid August each year. Students obtaining the D.P.T. degree must, have completed a bachelor's degree prior to completion of the D.P.T. requirements. This bachelor's degree could include the Bachelor of Science in Health Sciences (B.S.H.S.) degree currently offered to M.P.T. students who matriculated into the M.P.T. program without a bachelor's degree, and meet eligibility requirements. Information about the B.S.H.S. degree can be obtained from the Office of Admissions and Student Affairs within the School of Allied Health Sciences; (806.743.3220).

In addition, specific D.P.T. Bridge program prerequisites are listed below and must be completed at TTUHSC.

Prerequisite Courses

Successful completion of TTUHSC M.P.T. Coursework 105 Semester Hours

The Application Process

Currently enrolled students in the TTUHSC M.P.T. program are to notify the program director in writing through a "letter of intent" that they plan to enroll in the D.P.T. bridge program. A template copy of the "letter of intent" can be obtained from the D.P.T. program director. Campus assignments are typically the same as in the M.P.T. program, however, students wishing to transfer campuses may submit a request for campus transfer along with their "letter of intent" or through: Texas Tech University Health Sciences Center, Office of Admissions and Student Affairs, 3601 4th Street, Stop 6294, Lubbock, Texas 79430.

Professional Curriculum

The following courses are offered once each year during the semester listed and must be taken in sequence.

FIRST YEAR

Summer Semester Course		Credit Hours
AHPT 8201	History and Systems Screening	2
AHPT 8231	Diagnostic Imaging	2
AHPT 8240	Differential Diagnosis	2
AHPT 8110	Health and Wellness Promotion	1
		Total Hours = 7

During professional studies, students are required to adhere to all program policies and academic and behavioral guidelines as stated in the TTUHSC Student Affairs Handbook- Code of Professional and Academic Conduct and the DRS Student Handbook. Expenses incurred on/for clinical rotations (such as, but not limited to: housing, transportation, immunizations and criminal background check) are the responsibility of the student.

Course Descriptions: Professional Curriculum

AHPT 8110 Health and Wellness Promotion (1:1:0) This course focuses on guiding students in the development of a personalized fitness and wellness program as a means to enhance their patients' health and wellbeing in addition to providing them the knowledge and skills they need to guide others in developing health and wellness promotion programs, both at individual and organizational levels. Students will complete fitness and wellness modules on major health and wellness topics, such as principles of nutrition and physical fitness, disease prevention, risk factor reduction, and disease management, and learn to use behavior modification techniques to achieve healthy lifestyle habits in their patients. Students will learn concepts and techniques for health and fitness assessment, behavior modification counseling, nutrition and physical activity analysis and tracking, and program design and implementation across the lifespan for patients.

AHPT 8201 History & Systems Screening (2:1:3) This course will present an important responsibility of Physical Therapists, specifically, the recognition of co-morbid medical conditions. Accurate diagnosis depends on three major clinical indices: the subjective information obtained from the patient, the signs identified on physical examination, and the results obtained from diagnostic tests (imaging and laboratory tests). This course examines the relative value and importance of the subjective data obtained from the medical history as related to physical examination and imaging/laboratory investigations in the establishment of a diagnosis. Included is information regarding the knowledge and processing skills necessary to enhance Physical Therapists' medical screening and clinical judgments regarding when to treat and when to refer their patients. Combined with students' existing knowledge and skills, this medical screening course will provide a more comprehensive evaluation scheme that will facilitate safe, effective and efficient

patient management within the context of a collaborative practice paradigm.

AHPT 8231 Diagnostic Imaging (2:2:0) This course will cover the basic science behind multiple imaging modalities (x-rays, magnetic resonance imaging (MRI), computed tomography (CT), doppler, arthrograms, diagnostic ultrasound (DUS), etc., the benefits of each imaging method, as well as how to refer for imaging services or consultation. Anatomy of bone, joint, cartilage, soft tissue, central nervous system (CNS) structure, and gastrointestinal and genitourinary systems for the appropriate imaging devices will be discussed by joint/region along with clinical reasoning algorithms for assistance with imaging selection and interpretation. Special features and views will be discussed as applicable for each imaging device. Vascular modalities and special bone scans will also be discussed.

AHPT 8240 Differential Diagnosis (2:1:3) This course provides education and training in differential diagnosis of conditions that may require referral to or examination by a physician. Using basic to complex case studies from a variety of practice patterns, the course will educate the student about proper screening for medical disease to make an informed diagnosis. Students will be required to draw upon their comprehensive knowledge of all body systems to distinguish musculoskeletal and neuromuscular pathology from systemic conditions involving medical pathology. This course will utilize complex case studies in the laboratory setting and formal student presentations in the lecture setting to enhance student learning.

Transitional Doctor of Physical Therapy Pathway

Program Description

The Transitional Doctor of Physical Therapy is a clinical doctoral degree designed for licensed Physical Therapists who wish to advance their knowledge, skills, and behaviors to a level consistent with the current professional (entry-level) Doctor of Physical Therapy (DPT) standards. It is designed for experienced physical therapists who wish to augment their current knowledge and skills to position themselves more strongly in the current health care environment. The Transitional DPT differs from an advanced post-professional degree in that it does not reflect the acquisition of advanced or specialized clinical skills, but rather it reflects the augmentation in the physical therapy professional body of knowledge and practice over the last five or more years.

Admission To The Program

Eligibility requirements for admission to the Transitional DPT program are as follows:

- Either (i) a Master's professional degree in physical therapy (MPT) from an accredited physical therapy program within the United States, or (ii) a Bachelor's professional degree in physical therapy (BSPT) from an accredited physical therapy program within the United States and a Master's degree or higher in a related academic field from an accredited university within the United States.

- Licensed to practice physical therapy within the United States, with documentation submitted with application.

- All official college transcripts: undergraduate, physical therapy program, any other relevant university course work.

- Acceptable grade point average in university course work.

- At least one supporting letter of reference from a current / former employer or a professional colleague.

- Résumé listing professional experience.

- Essay about personal professional goals in 500 words or less.

The Application Process

Applications are accepted for admission for the Fall, Spring and Summer semesters. Application deadlines are July 1 for Fall, November 1 for Spring, and March 1 for Summer.

Applicants must complete and submit the application for admission online at: http://www.ttuhsc.edu/sah/admissions/.

Additional application materials, such as letters of reference, university transcripts and documentation of possession of a physical therapy license in the United States, should be sent to the Texas Tech University Health Sciences Center, Office of the Registrar, 3601 4th Street, Stop 8310, Lubbock, Texas 79430. Applicants should understand that fulfillment of the basic requirements does not guarantee admission.

The Professional Curriculum

The Transitional DPT program curriculum requires the completion of 27 semester credit hours. The curriculum consists of a set of required courses and a wide variety of elective courses. Courses are taught online, with a single weekend contact session held at the Lubbock campus for skill-based courses. Each course will be taught at least once per year. Students are required to successfully complete at least two courses within each academic year. While each student's curriculum is flexible, it is expected that course work requirements for the Transitional DPT degree be completed within four years.

Doctor of Physical Therapy

The PT Profession

The profession of physical therapy developed as a result of societal needs during the world wars and the poliomyelitis epidemics in the beginning of the 20th century. Physical therapists practice in a variety of settings with unprecedented levels of professional responsibility. Physical therapists practice in outpatient clinics, hospitals, rehabilitation facilities, long-term care facilities, patients' homes, schools, industrial settings, and fitness/wellness centers. Physical therapists are an integral part of the healthcare team managing a wide variety of patients across the lifespan in many different settings.

Physical therapy is a health profession that focuses on examining and evaluating patients in order to determine a diagnosis, prognosis, and intervention. Physical therapists help alleviate impairments and functional limitations to restore a quality of life and participation in society. Restoration of function is accomplished through designing and implementing evidence-based patient specific therapeutic interventions in patients with acute and chronic injury, disease, and physical disability. Physical therapist collaborate with a variety of other professionals through consultation, education, and research to provide patient/client services. Physical therapists also act as consultants for businesses, public and private organizations, and to their community to promote health, wellness/fitness, and prevention. Physical therapist practice relies on the application of a well-developed body of scientific and clinical knowledge from the basic, behavioral, clinical and social sciences. In addition, physical therapists are investigators in basic and clinical research, and serve as both academic and clinical faculty members at universities.

After graduating from an accredited physical therapy professional education program, physical therapist candidates must pass a national licensure examination in order to practice physical therapy. Additional licensure requirements for physical therapists vary from state to state, according to practice acts and state regulations that govern the practice of physical therapy.

Program Description

The Texas Tech University Health Sciences Center's (TTUHSC) Physical Therapy program is located within the School of Allied Health Sciences and the Department of Rehabilitation Sciences. The TTUHSC Physical Therapy program has been accredited by the Commission on Accreditation in Physical Therapy (CAPTE) since its inception and is currently accredited through December 31st, 2018.

Increase in professional responsibility of the physical therpist created a need for continued development of physical therapy professional educational programs across the United States. This development led to the transition of the physical therapy programs from bachelor's degree programs to master's degree programs

and finally to doctoral degree programs. The TTUHSC School of Allied Health Sciences obtained approval to award the Doctor of Physical Therapy (D.P.T.) degree from the Texas higher Education Coordinating Board in July of 2007.

The mission of the Doctor of Physical Therapy (D.P.T.) program at Texas Tech University Health Sciences Center (TTUHSC) is to educate students to be autonomous, evidence-based practitioners who improve the health of people through the application of their clinical skills, collaboration with other health care professionals, and commitment to life-long learning and community service.

The three-year D.P.T. program has two components: academic and clinical. The academic component, via classroom and laboratory experiences, includes biological and physical sciences, behavioral sciences, and clinical sciences. The clinical education, which consists of 36 weeks of clinical experience under the supervision of a licensed physical therapist. Clinical experiences focus on basic, musculoskeletal, and neurologic skills. Students also participate in a clinical experience designed to meet individual student interests, which may include pediatrics, sports medicine, women's health, etc. Sites for clinical experiences are located primarily throughout Texas and the Southwestern US, but can be located anywhere in the United States mainland. Students should anticipate additional costs during their clinical experiences. Students must pass a Criminal Background Check in order to participate in clinical experiences. Many clinical education sites also require a drug screening prior to beginning the experience.

The TTUHSC D.P.T. program is one program located on three campuses: Amarillo, Lubbock, and Odessa. Class sizes at all campuses are restricted to ensure optimal student/instructor ratios and to maximize comprehensive instructional and laboratory experiences. Faculty and students on all campuses communicate with each other in person, via a state-of-the-art interactive multimedia environment, by e-mail, and by telephone. Students entering the program should possess basic computer skills, including the use of e-mail, accessing the internet, and the use of word processing programs. Computer labs are located on each campus to meet the information technology needs of the student.

Essential Functions

A student admitted into the D.P.T. program must meet essential functions that are necessary to be able to obtain employment. These are established minimum physical and mental guidelines necessary for the D.P.T. program. Prior to matriculation, all students must submit verification of their ability to perform at or above the minimum physical and mental guidelines established by the Department of Rehabilitation Sciences (DRS)

Prospective students may obtain a written copy of the essential functions for the D.P.T. program from the Office of Admissions and Student Affairs by calling (806) 743-3220.

Current students may find a list of the essential functions for the D.P.T. program in the DRS Student Handbook (http://www.ttuhsc.edu/sah/current/handbooks.aspx).

Admission to the Program

The Application Process

Applications for admissions to the D.P.T. program are considered on a rolling basis with two application deadlines. Application deadlines are September 15th for the early admission cycle and January 15th for the regular admission cycle. Consideration for early admission is reserved for those individuals that have a complete application package (including completion of all or most of the prerequisite coursework) and competitive GPA. Individual applications are reviewed and interviews are scheduled for competitive applicants once all materials have been received. It is in the applicant's best interest to complete their application, including submission of transcripts and clinical experience documentation forms, as early as possible. Two letters of recommendation are required as part of the application, and should be completed by the following: one from professional personnel (perferably a physical therapist) who has observed the applicant during any related volunteer or paid work, and from a previous or present instructor, academic counselor, previous or present employers.

Applicants who meet the above listed requirements and are deemed competitive candidates for admission will be invited to TTUHSC for interviews. Applicants should understand that fulfillment of the basic requirements does not guarantee admission. The admissions committee selects the most qualified applicants from the pool of applicants interviewed considering: cumulative GPA, prerequisite science GPA, interview scores, volunteer/work experience in physical therapy, recommendation letters, student essay, and other factors.

Applicants must have completed all prerequisites prior to matriculation into the D.P.T. program. Applicants to the physical therapy program should understand that students admitted to the program are assigned to a specific campus (Lubbock, Amarillo, or Odessa), and requests for campus transfers are not typically granted. Students who are unable or unwilling to accept assignment to a specific campus should not accept admission to the D.P.T. program. All students attend classes during the first summer session on the Lubbock campus.

All applications are made online at the following web address: http://techsis.tosm.ttu.edu/student/alliedhealth.htm. Additional application materials should be sent to the Texas Tech University Health Sciences Center, Office of the Registrar, 3601 4th Street, Stop 8310, Lubbock, Texas 79430.

Laptop Computer Requirement

The D.P.T. Program has the requirement that all incoming students must have a laptop computer. Below is a list of the minimum recommendations for your laptop computer hardware.

General Recommendations for Laptop Computers

Processor:	*Intel processor, 2.0 GHz or greater*
Operating System:	*Windows XP Professional on NTFS*
Memory (RAM):	*2 GB RAM or greater*
Storage:	*80 GB SATA hard drive or greater*
Video:	*128 MB video card or integrated graphics*
Network:	*10/100 network card*
WiFi:	*802.11g wireless network card*
Optical Drive:	*CD-RW/DVD combo drive*

As a Texas Tech University Health Sciences Center students have access to several free software downloads. One of the most useful is Microsoft Office, therefore **DO NOT** purchase Microsoft Office prior to arriving on the TTUHSC campus. Additional information regarding these free software downloads will be provided during orientation.

Prerequisite Courses

The professional phase of the D.P.T. program begins in late May each year. A bachelor's degree is required for admission into the D.P.T. program. In addition, specific D.P.T. program prerequisites are listed below and may be completed at any accredited college or university.

Required Course	Credit Hours
Psychology (one course must be developmental: across the lifespan or child)	6
English or Technical Writing	6
Math (College Algebra)	3
Statistics	3
General Biology (for science majors, lab required)	8
Anatomy and Physiology (for science majors, lab required)	6-8
General Chemistry (for science majors, lab required)	8
General Physics (for science majors, lab required)	8
	Total Hours = 48-50

** Recommended courses: Additional English, technical writing, speech, exercise physiology, kinesiology, and biomechanics, motor control.*

To qualify for admission, applicants must have completed or planned to have completed all courses from an accredited two-year college, college, or university in the United States prior to enrollment. The courses listed below are the Texas Tech University equivalents of the prerequisite courses required to apply for admission into the professional phase of the TTUHSC Physical Therapy program.

Biological Sciences		Credit Hours
BIOL 1403	Biology I w/ lab	4
BIOL 1404	Biology II w/ lab	4
ZOOL 2403	Human Anatomy	4
ZOOL 2404	Human Physiology	4
*ZOOL 3405	Vertebrate Structure & Development	4
*ZOOL 4409	Comparative Animal Physiology	4
		Required Hours = 14-16

** Upper division (Junior or Senior level course noted by 3000 or 4000 level course number) courses in anatomy and physiology will strengthen an applicant's foundational knowledge in preparation for the D.P.T. program and are recommended in addition to the required lower division course work in anatomy and physiology.*

Chemistry		Credit Hours
CHEM 1307	Principles of Chemistry	3
CHEM 1107	(Lab)	1
CHEM 1308	Principles of Chemistry II	3
CHEM 1108	(Lab)	1
		Required Hours = 8

Physics		Credit Hours
PHYS 1403	General Physics I	3
PHYS 1103	(Lab)	1
PHYS 1404	General Physics II	3
PHYS 1104	(Lab)	1
		Required Hours = 8

Social Sciences		Credit Hours
PSY 1300	General Psychology	3
PSY 4301	Developmental Psychology	3
		Required Hours = 6

Mathematics		Credit Hours
Math 1320	College Algebra	3
		Required Hours = 3

Statistics		Credit Hours
MATH 2300	Statistical Methods	3
or		
PSY 3403	Statistical Methods	3
		Required Hours = 3

English		Credit Hours
ENGL 1301	Essentials of College Rhetoric	3
ENGL 1302	Advanced College Rhetoric	3
or		
ENGL 2311	Introduction to Technical Writing	3
		Required Hours = 6

** Recommended courses include additional technical writing, speech, exercise physiology, kinesiology, and biomechanics.*

GPA Requirements

Competitive* cumulative and prerequisite science grade point averages (GPA's) are required for admission. (*"Competitive GPA" relates to the strength of the applicant pool during the year of application.)

Experience

Applicants are expected to have some experience of the profession prior to application to the program. This experience may be acquired in several ways, including volunteer work, paid employment, or observations in clinical settings. Applicants must have completed at least 100 clock hours of experience in a physical therapy setting prior to May 1 of the year of matriculation. Applicants are encouraged to get as much experience in as many different settings (inpatient, outpatient, rehab, acute care, aquatics, wound care etc.) as possible. Greater clock hours of experience in a variety of settings will strengthen an application.

Physical Therapy Curriculum

The following courses are offered once each year during the semester listed and must be taken in sequence. Consequently, each course must be successfully completed before the student is allowed to progress in the curriculum.

FIRST YEAR

Summer Semester Course*		Credit Hours
AHPT 8500	Gross Anatomy	5
AHPT 8100	Professional Development	1
AHPT 8200	Physiology of Body Systems	2
		Total Hours = 8

**All students attend the first summer session at the Lubbock campus.*

Fall Semester Course		Credit Hours
AHPT 8201	History and Systems Screening	2
AHPT 8203	Functional Anatomy	2
AHPT 8205	Research Design and Statistics	2
AHPT 8207	Clinical Pathology	2
AHPT 8209	Exercise Physiology	2
AHPT 8301	Foundational Skills and Assessment	3
AHPT 8303	Biomechanics	3
		Total Hours = 16

Spring Semester Course		Credit Hours
AHPT 8110	Health and Wellness Promotion	1
AHPT 8210	Therapeutic Exercise	2
AHPT 8212	Pharmacology	2
AHPT 8214	General Practice Patterns	2
AHPT 8216	Physical Agents and Modalities	2
AHPT 8414	Cardiopulmonary Practice Patterns	4
AHPT 8418	Neuroscience	4
		Total Hours = 17

SECOND YEAR

Summer Semester Course		Credit Hours
AHPT 8120	Communication and Clinical Education	1
AHPT 8123	Clinical Reasoning 1	1
AHPT 8228	Motor Behavior	2
AHPT 8222	Clinical Internship 1 (4 weeks)	2
		Total Hours = 6

Fall Semester Course		Credit Hours
AHPT 8231	Diagnostic Imaging	2
AHPT 8329	Human Development	3
AHPT 8425	Musculoskeletal Practice Patterns I - Extremities	4
AHPT 8521	Neuromuscular Practice Patterns	5
		Total Hours = 14

Spring Semester Course		Credit Hours
AHPT 8114	Critique and Interpretation of Research	1
AHPT 8324	Orthotics and Prosthetics	3
AHPT 8327	Health Care and Business Management	3
AHPT 8422	Pediatric Practice Patterns	4
AHPT 8426	Musculoskeletal Practice Patterns II - Spine	4

Total Hours = 15

THIRD YEAR

Summer Semester Course		Credit Hours
AHPT 8142	Assistive and Adaptive Technology	1
AHPT 8146	Special Topics (Women's Health; Ergonomics)	1
AHPT 8224	Clinical Reasoning 2	2
AHPT 8240	Differential Diagnosis	2

Total Hours = 6

Fall Semester Course		Credit Hours
AHPT 8453	Clinical Internship 2 (8 weeks)	4
AHPT 8455	Clinical Internship 3 (8 weeks)	4
AHPT 8144	Professional Project	1

Total Hours = 9

Spring Semester Course		Credit Hours
AHPT 8456	Clinical Internship 4 (8 weeks)	4
AHPT 8458	Clinical Internship 5 (8 weeks)	4
AHPT 8160	Graduate Seminar	1

Total Hours = 9

Total Curriculum Hours=100

During professional studies, students are required to adhere to all program policies and academic and behavioral guidelines as stated in the TTUHSC Student Affairs Handbook- Code of Professional and Academic Conduct and the DRS Student Handbook. Expenses incurred on/for clinical rotations (such as, but not limited to: housing, transportation, immunizations and criminal background check) are the responsibility of the student.

Course Descriptions

AHPT 8100 Professional Development (1:1:0) This course will focus on the principles that govern ethical decisions, profession roles, and professional behaviors as they specifically relate to the practice of Physical Therapy. Additional emphasis will focus on the development of skills related to the following: 1) the effective management of time and stress, 2) effective study and test taking strategies, and 3) conflict management skills. This course will incorporate

discussion- based didactic lecture, individual and group assignments and online instruction.

AHPT 8110 Health and Wellness Promotion (1:1:0) This course focuses on guiding students in the development of a personalized fitness and wellness program as a means to enhance their patients' health and wellbeing in addition to providing them the knowledge and skills they need to guide others in developing health and wellness promotion programs, both at individual and organizational levels. Students will complete fitness and wellness modules on major health and wellness topics, such as principles of nutrition and physical fitness, disease prevention, risk factor reduction, and disease management, and learn to use behavior modification techniques to achieve healthy lifestyle habits in their patients. Students will learn concepts and techniques for health and fitness assessment, behavior modification counseling, nutrition and physical activity analysis and tracking, and program design and implementation across the lifespan for patients.

AHPT 8114 Critique and Interpretation of Research (1:1:0) This course teaches students how to critically read the scientific literature in preparation for becoming an evidence-based practitioner. The focus of the course will be on becoming a consumer of scientific literature.

AHPT 8120 Communication and Clinical Education (1:1:0) This course is designed to improve the students' communication through written, verbal and nonverbal forms, enhance professional behaviors and address issues concerning clinical education. Topics discussed are related to documentation styles, teaching and learning, components of respectful interaction with cultural and generational differences, difficult patients and various age groups. Professional behaviors as they relate to the generic abilities and clinical education will also be addressed, along with using the PT MACS on clinical internships.

AHPT 8123 Clinical Reasoning 1 (1:0:3) Clinical Reasoning 1 is designed to explore the nature of clinical reasoning in the profession of Physical Therapy and to examine strategies for assisting learners to develop their reasoning expertise. This course focuses on clinical problem solving used in minimally to moderately complex case studies to including the following practice patterns across the life span: general, cardiopulmonary, musculoskeletal, and neuromuscular. Knowledge and skills from the curriculum taught to this point will be incorporated. The laboratory course places less emphasis on didactic learning and more toward case competence, problem solving and patient care management ability. Also incorporated are quizzes with licensure type test items covering material presented in the curriculum thus far and that are representative of the categories in the content outline of the licensure exam.

AHPT 8142 Assistive & Adaptive Technology (1:1:0) Study of assistive technology including manual and powered mobility, postural control, environmental controls, augmentative communication, and transportation.

AHPT 8144 Professional Project (1:1:0) Prerequisites: Research Design and Statistics; Critique and Interpretation of Research. This course is the culmination of the research courses in which students will perform a scholarly literature review of a Physical Therapy-related topic. This course will provide the instruction to perform this task.

AHPT 8146 Special Topics (1:1:0) This course includes selected topics of interest to the profession of Physical Therapy. Topics may include, but are not limited to: the healthcare of women especially during the childbearing years; incontinence; pelvic/ vaginal pain; prenatal and postpartum musculosketelal pain; osteoporosis; rehabilitation following breast surgery; and lymphedema. Other topics of current interest will be presented.

AHPT 8160 Graduate Seminar (1:1:0) This integrative capstone seminar course format designed to prepare graduates for the licensure examination and entering the work force. Learning method includes online supplementary review and seminar format.

AHPT 8200 Physiology of Body Systems (2:2:0) This course provides a survey of human physiology and covers key concepts related to the function and biological control of cells, tissues, organs, and body systems. Basic principles of physiology are addressed with focus on the coordinated functions and activities of specific body systems: nervous, musculoskeletal, cardiorespiratory, immune, endocrine, gastrointestinal, and other body systems. Emphasis is given to normal system function, interaction, and homeostasis and the ways that these contribute to the functions of the body as a whole. Abnormal function and interaction will also be addressed.

AHPT 8201 History & Systems Screening (2:1:3) This course will present an important responsibility of Physical Therapists, specifically, the recognition of co-morbid medical conditions. Accurate diagnosis depends on three major clinical indices: the subjective information obtained from the patient, the signs identified on physical examination, and the results obtained from diagnostic tests (imaging and laboratory tests). This course examines the relative value and importance of the subjective data obtained from the medical history as related to physical examination and imaging/laboratory investigations in the establishment of a diagnosis. Included is information regarding the knowledge and processing skills necessary to enhance Physical Therapists' medical screening and clinical judgments regarding when to treat and when to refer their patients. Combined with students' existing knowledge and skills, this medical screening course will provide a more comprehensive evaluation scheme that will facilitate safe, effective and efficient patient management within the context of a collaborative practice paradigm.

AHPT 8203 Functional Anatomy (2:1:3) This course focuses on the study of anatomy with respect to function. Emphasis will be placed on joint orientation and description of normal osteokinematic and arthrokinematic components of movement of the upper extremity, lower extremity and spine. Laboratory

experiences focus on surface anatomy palpation and visualization of kinematic motion.

AHPT 8205 Research Design and Statistics (2:2:0) This course provides the student with an introduction to statistics and research design. Students will obtain the requisite knowledge about the research process and experimental designs commonly used in pre-clinical and clinical studies. The course will present the fundamental concepts of descriptive statistics and statistical inference.

AHPT 8207 Clinical Pathology (2:2:0) This course provides a survey of clinical pathology and covers key concepts related to the structural and functional changes in cells, tissues and organs that underlie human disease. Basic principles of pathology are addressed with focus on the cause, development, progress, and consequences of diseases related to the nervous, musculoskeletal, cardiorespiratory, immune, endocrine, gastrointestinal, and other body systems. In each system, normal structure, function, and the symptoms and signs that arise from pathologic changes are discussed. Emphasis is given to pathologies that are more likely to be encountered in Physical Therapy practice and to developing an understanding of how disease affects functional abilities, patient safety, and treatment outcomes.

AHPT 8209 Exercise Physiology (2:2:0) This course is designed to provide students an understanding of basic exercise physiology with a focus on the acute physiological responses and adaptive changes to exercise across systems, between genders, and over the lifespan. Students will develop their understanding of the body's ability to perform physical work, adapt to stressful situations, and improve its physiological capacities for health and exercise performance. Laboratory sessions will allow students the opportunity to develop knowledge and skills in the application of principles of exercise physiology to the assessment and prescription of physical activity and exercise in the clinical rehabilitation setting. This course also emphasizes concepts of health and wellness promotion.

AHPT 8210 Therapeutic Exercise (2:1:3) This course will include lecture and lab components exploring the principles guiding therapeutic exercise prescription by the Physical Therapist. The major therapeutic exercise domains that will be explored include flexibility training, resistance training, cardio-respiratory/ aerobic training, relaxation, aquatic exercise, proprioceptive neuromuscular facilitation, balance, coordination, stabilization training. The course will place special emphasis on health and wellness of the general population and exercise principles related to women's health.

AHPT 8212 Pharmacology (2:2:0) This course provides a survey of pharmacology and covers key concepts related to the cellular actions, therapeutic uses, and side effects of major drug classes used in humans. Basic principles of pharmacology are addressed with focus on the mechanisms of action of classes of drugs and effects of specific drugs on the nervous, musculoskeletal, cardiorespiratory, immune, endocrine, gastrointestinal, and other body systems. Basic principles

of pharmacology and their relation with pathophysiology are addressed with focus on and relevant applications to the practice of Physical Therapy.

AHPT 8214 General Practice Patterns (2:1:3) This course presents material essential to a Physical Therapist's role in patient/client management in diverse practice settings. Using didactic lecture and clinical laboratory practice, material associated with the five elements of the patient/client management by the Physical Therapist are acquired. These elements include the examination, evaluation of examination results, diagnosis, establishing a prognosis, and instituting appropriate interventions. This course will discuss the assessment process and interventions involved with the care of the patient/client encountered in general medicine and surgical practice.

AHPT 8216 Physical Agents and Modalities (2:1:3) This course presents material that allows development of clinical skills fundamental to patient management for the Physical Therapist. Course content includes theory, scientific principles, and clinical applications associated with a Physical Therapy evaluation, assessment, and intervention with physical agents and modalities. This course emphasizes instruction in physical agents and modalities available to the practicing Physical Therapist. These will include: electrophysiology, thermal agents, laser, application of traction, electromyographic (EMG) biofeedback, biomedical compression, alternative and palliative care, soft tissue modalities, and the practical usage of each agent or modality. Both classroom and laboratory learning will be included.

AHPT 8222 Clinical Internship 1 (2:0:6) Four weeks of full-time clinical experience (approximately 160 hours) in a Physical Therapy practice setting. During Clinical Internship 1, the student has the opportunity to integrate patient evaluation and management skills in a clinical setting to develop entry-level competencies for entry-level Physical Therapists as defined in the Physical Therapist Manual for the Assessment of Clinical Skills (PT MACS).

AHPT 8224 Clinical Reasoning 2 (2:1:3) Clinical Reasoning 2 is designed to explore the nature of clinical reasoning in the profession of Physical Therapy and examine strategies for assisting learners to develop their reasoning expertise. This course focuses on clinical problem solving used in moderate to complex case studies to including the following practice patterns across the life span: general, cardiopulmonary, musculoskeletal, and neuromuscular to include pediatrics. Knowledge and skills from the curriculum taught to this point will be incorporated. The laboratory course places less emphasis on didactic learning and more toward case competence, problem solving and patient care management ability. Also incorporated are quizzes with licensure type test items covering material presented in the curriculum thus far and that are representative of the categories in the content outline of the licensure exam.

AHPT 8228 Motor Behavior (2:2:0) The course focuses on the principles of the current theories of motor control, motor learning, and recovery of function. Application to neurologic Physical Therapist practice using a theoretical

framework. The focus is on normal and pathological postural control, mobility, and upper extremity function.

AHPT 8231 Diagnostic Imaging (2:2:0) This course will cover the basic science behind multiple imaging modalities (x-rays, magnetic resonance imaging (MRI), computed tomography (CT), doppler, arthrograms, diagnostic ultrasound (DUS), etc., the benefits of each imaging method, as well as how to refer for imaging services or consultation. Anatomy of bone, joint, cartilage, soft tissue, central nervous system (CNS) structure, and gastrointestinal and genitourinary systems for the appropriate imaging devices will be discussed by joint/region along with clinical reasoning algorithms for assistance with imaging selection and interpretation. Special features and views will be discussed as applicable for each imaging device. Vascular modalities and special bone scans will also be discussed.

AHPT 8240 Differential Diagnosis (2:1:3) This course provides education and training in differential diagnosis of conditions that may require referral to or examination by a physician. Using basic to complex case studies from a variety of practice patterns, the course will educate the student about proper screening for medical disease to make an informed diagnosis. Students will be required to draw upon their comprehensive knowledge of all body systems to distinguish musculoskeletal and neuromuscular pathology from systemic conditions involving medical pathology. This course will utilize complex case studies in the laboratory setting and formal student presentations in the lecture setting to enhance student learning.

AHPT 8301 Foundational Skills and Assessment (3:2:3) This course presents foundational tests and measures for physical therapy practice. Using didactic lecture and clinical laboratory practice, basic physical therapy skills and assessments are covered including but not limited to: goniometry, manual muscle testing, postural assessment and gait assessment. General assessment techniques and foundational test and measures will be covered.

AHPT 8303 Biomechanics (3:3:0) This course provides students with a fundamental understanding of the biomechanics of the musculoskeletal system and integrated human movement with clinically relevant applications.

AHPT 8324 Orthotics and Prosthetics (3:2:3) This course is designed to provide the Physical Therapy student knowledge of orthotic and prosthetic prescription, parts components, and Physical Therapy application. This course includes exercise prescription for amputees, evaluative procedures for orthotics and prosthetics, gait analysis, device checkouts and case studies. Course will also involve interactions with prosthetists and orthotists and prosthetic and orthotic device users.

AHPT 8327 Healthcare & Business Management (3:3:0) The course provides an understanding of basic organizational, fiscal, payer, and accessibility issues pertinent to the administration and management of rehabilitative services

as well as initial business management perspectives needed by the entry-level Physical Therapist, concentrating on supervision, staffing, planning, and administration.

AHPT 8329 Human Development (3:3:0) Study of human growth and development issues and theories relevant to the practice of Physical Therapy. The course focuses on typical development from conception to senescence within the physical, cognitive, social, and emotional domains.

AHPT 8414 Cardiopulmonary Practice Pattern (4:3:3) This course is designed to focus on the primary and secondary cardiopulmonary impairments that limit therapeutic and patient outcomes in various settings, which include intensive care units, long term care, outpatients, school setting and home care. The physiological and evidence basis of intervention will primarily focus on practical aspects relating to all patients and client. Current medical diagnosis and treatment of common cardiac and pulmonary disorders seen by Physical Therapy practice will be incorporated in this course. The Guide to Physical Therapist Practice will be used to discuss the process of selecting appropriate tests and measures, establishing a diagnosis, prognosis and plan of care, and selecting interventions for patients with cardiovascular and pulmonary impairments.

AHPT 8418 Neuroscience (4:4:0) This course provides students with a fundamental understanding of the functions and pathologies of the central nervous system (CNS) as a basic science course in the neurorehabilitation curriculum. The emphasis will be on "systems-level neuroanatomy," i.e., functional neuroanatomy (e.g., motor and sensory pathways) and regional neuroanatomy (e.g., organization of spinal cord, brainstem, cerebral cortex, etc.). In addition, information processing by neurons will be addressed by coverage of axon physiology, synaptic neurotransmission and plasticity. The course will first survey the anatomical organization of the CNS, then sensory and motor functions of the CNS, and finish with a description of a number of neurological disorders that have clinical relevance to Physical Therapists.

AHPT 8422 Pediatric Practice Patterns (4:3:3) This course focuses on Physical Therapy examination, evaluation, interventions, and expected outcomes for pediatric patients with musculoskeletal, neuromuscular, cardiopulmonary, or general medical impairments and functional limitations. The course includes discussion of Physical Therapy practice in specialized setting such as neonatal intensive care, early childhood intervention programs, and public schools.

AHPT 8425 Musculoskeletal Practice Pattern 1: Extremities (4:2:6) An in-depth study of the principles of orthopedic examination, evaluation and intervention aimed at incorporating a detailed working knowledge of pathologic anatomy as it relates to dysfunction of the extremities. This course will teach the basis for orthopedic intervention utilizing modalities, joint mobilization/manipulation, therapeutic exercise, functional and post surgical rehabilitation principles.

AHPT 8426 Musculoskeletal Practice Pattern 2: Spine (4:2:6) An in-depth study of the principles of orthopedic examination, evaluation and intervention aimed at incorporating a detailed working knowledge of pathologic anatomy as it relates to dysfunction of the spine. This course will teach the basis for orthopedic intervention utilizing modalities, joint mobilization/manipulation, therapeutic exercise, functional, chronic pain, and post surgical rehabilitation principles.

AHPT 8453 Clinical Internship 2 (4:0:12) Eight weeks of full-time clinical experience (approximately 320 hours) in a predetermined specific PT clinical setting (acute care, musculoskeletal, neuromuscular, or elective). The student has the opportunity to integrate patient management and evaluation skills and to develop entry-level and advanced competencies for entry-level Physical Therapists as defined in the Physical Therapist Manual for the Assessment of Clinical Skills (PT MACS).

AHPT 8455 Clinical Internship 3 (4:0:12) Eight weeks of full-time clinical experience (approximately 320 hours) in a predetermined specific PT clinical setting (acute care, musculoskeletal, neuromuscular, or elective). The student has the opportunity to integrate patient management and evaluation skills and to develop entry-level and advanced competencies for entry-level Physical Therapists as defined in the Physical Therapist Manual for the Assessment of Clinical Skills (PT MACS).

AHPT 8456 Clinical Internship 4 (4:0:12) Eight weeks of full-time clinical experience (approximately 320 hours) in a predetermined specific PT clinical setting (acute care, musculoskeletal, neuromuscular, or elective). The student has the opportunity to integrate patient management and evaluation skills and to develop entry-level and advanced competencies for entry-level Physical Therapists as defined in the Physical Therapist Manual for the Assessment of Clinical Skills (PT MACS).

AHPT 8458 Clinical Internship 5 (4:0:12) Eight weeks of full-time clinical experience (approximately 320 hours) in a predetermined specific PT clinical setting (acute care, musculoskeletal, neuromuscular, or elective). The student has the opportunity to integrate patient management and evaluation skills and to develop entry-level and advanced competencies for entry-level Physical Therapists as defined in the Physical Therapist Manual for the Assessment of Clinical Skills (PT MACS).

AHPT 8500: Gross Anatomy (5:3:6) An integrated study of gross human anatomy embodying gross morphology and coordinating with developmental and histological aspects of the body. Included is regional dissection with emphasis on the musculoskeletal, nervous, circulatory and respiratory systems.

AHPT 8521 Neuromuscular Practice Patterns (5:3:6) This course examines the pathology, medical diagnosis process, and medical and surgical interventions of neuromuscular conditions in adults that are commonly seen by Physical Therapists. It focuses on Physical Therapy examination, evaluation, and intervention for adult clients with neurological disorders based on current research, evidence, and practice guidelines.

Doctor of Science in Physical Therapy

The mission for the Doctor of Science in Physical Therapy (Sc.D.) Program is to provide post-professional education to practicing physical therapists in Texas. There is a strong need for advanced clinical mastery and Physical Therapy, creating unique decisions and functions for practicing physical therapists. The Sc.D. program will provide practitioners with the opportunity to develop the advanced knowledge base, clinical skills, and professional competencies needed for state-of-the-art evaluation and treatment of their patients, as well as the successful management of clinical services located in isolated practice settings. The Sc.D. program will provide clinicians a means to develop into highly skilled participants in clinical education and research, thus contributing to the growth and development of evidence-based practice within the profession.

There is a knowledge revolution found in Physical Therapy literature, advancing the boundaries of clinical science, technology, and therapeutic insight. This advancement has created potential for excellence in clinical evaluation, management and research skills. The Sc.D. program will prepare licensed therapists to develop the needed competencies in advanced Physical Therapy diagnosis and therapeutic interventions required in the isolated practice settings. The clinical doctorate is a logical means for therapists to achieve needed levels of expertise, specialization and to increase the level of sophistication, efficiency, efficacy, and clinical outcomes in physical therapists practice. This clinical expertise will equip the Sc.D. practitioner with the advanced skill set that is increasingly essential for successful practice in rural West Texas. This advanced level of information, skills, competencies and critical thinking requires the rigorous, formalized study that is not available in an entry level program or post-graduate continuing education.

Program Description

The Sc.D. is a clinical doctoral degree designed for licensed Physical Therapy practitioners to develop into advanced clinicians. It emphasizes orthopaedic Physical Therapy in response to the great number of orthopaedic afflictions suffered by patients from the agrarian economy of West Texas. Over 80% of all patients seeking Physical Therapy services suffer from orthopaedic afflictions. Thus, this program will provide concentrated study at the applied doctoral level in the clinical science areas of orthopaedic Physical Therapy practice.

The Sc.D. program emphasizes orthopaedic Physical Therapy diagnostics and manual therapy. Courses will be conducted through a weekend format with Web-based course enhancement. Faculty and students communicate with each other in person, via phone or fax and through the electronic mail or internet. Students entering the program should have ready access to a computer and be familiar with word processing, spreadsheet, and internet applications. Students without computers are required to purchase one and become familiar with it prior to beginning the program.

Admission to the Program

The following requirements will be considered for admission into the program:

- A Bachelor's, Master's, or Doctorate (D.P.T.) professional degree in Physical Therapy
- At least one year of clinical experience
- Currently practicing as a Physical Therapist
- All official college transcripts
- Acceptable grade point average
- Two supporting letters of reference

Application Process

Applications may be submitted at anytime prior to the deadline of March 15. Applications will be considered for Summer or Fall enrollment. Two reference letters are required; one from a professional colleague and one from a previous or present employer.

Applicants must complete and submit the online application. Additional application materials should be sent to the Texas Tech University Health Sciences Center, Office of the Registrar, 3601 4th Street, Stop 8310, Lubbock, Texas 79430. Applicants should understand that fulfillment of the basic requirements does not guarantee admission.

Program Curriculum

The following courses are offered at least once every three years. Sc.D. students with a Bachelor's degree are required to complete a minimum of 70 hours from the following curriculum. Students with a Master's degree are required to complete a minimum of 48 semester hours. Students with a DPT are required to complete a minimum of 36 hours, depending on their previous DPT coursework. Each DPT applicant's transcript is considered on a case-by-case basis and final required hours are determined by the admissions committee who will evaluate if any DPT courses will substitute for a ScD course. Requirements within each course section for DPT, Master's or Bachelor's graduates are provided below. Students will select either the Teaching or Research Track early in their curriculum. While each student's curriculum schedule is flexible, students are expected to finish the program within seven years.

CLINICAL COURSEWORK

D.P.T. & Master's Graduates attend 8, BSPT Graduates attends all

Extremity Topic Course		Credit Hours
AHPT 6201	Advanced Clinical Practice for Shoulder Afflictions	2
AHPT 6202	Advanced Clinical Practice for Elbow & Forearm Afflictions	2
AHPT 6203	Advanced Clinical Practice for Wrist & Hand Afflictions	2
AHPT 6204	Advanced Clinical Practice for Hip Afflictions	2
AHPT 6205	Advanced Clinical Practice for Knee Afflictions	2
AHPT 6206	Advanced Clinical Practice for Ankle & Foot Afflictions	2

Spine Topic Course		Credit Hours
AHPT 6207	Advanced Clinical Practice for Upper Cervical Spine Afflictions	2
AHPT 6208	Advanced Clinical Practice for Lower Cervical Spine Afflictions	2
AHPT 6209	Advanced Clinical Practice for Cervico Thoracic Junction Afflictions & TOS	2
AHPT 6210	Advanced Clinical Practice for Thoracic Spine & Rib Afflictions	2
AHPT 6211	Advanced Clinical Practice for SacroIliac & Lumbar Primary Disc Afflictions	2
AHPT 6212	Advanced Clinical Practice for Lumbar Secondary Disc Afflictions	2

MENTORED INTERNSHIP

D.P.T. & Master's graduates attend one, BSPT graduates attend two

Course		Credit Hours
AHPT 6213	Clinical Internship I (120 total contact hours)	2
AHPT 6214	Clinical Internship II (120 total contact hours)	2
AHPT 6215	Research Internship I (120 total contact hours)	2
AHPT 6216	Research Internship II (120 total contact hours)	2

CORE COURSES

D.P.T., Master's, and B.S.P.T. graduates and BSPT graduates attend all

Course		Credit Hours
AHPT 6301	Issues in Orthopaedic Physical Therapy & Manual Therapy I	3
AHPT 6302	Issues in Orthopaedic Physical Therapy & Manual Therapy II	3
AHPT 6304	Orthopaedic Physical Therapy Screening	3

LEADERSHIP COURSES

D.P.T. & Master's graduates attend 1, BSPT graduates attend all

Course		Credit Hours
AHPT 6315	Advanced Healthcare Administration	3
AHPT 6316	Marketing in Outpatient Physical Therapy	3

ELECTIVES

D.P.T. & Master's graduates attend 3, BSPT graduates attend 5

Course		Credit Hours
AHPT 6303	Basic & Applied Science in Orthopaedics	3
AHPT 6305	Updates in Orthopaedic Surgical Management	3
AHPT 6311	Clinical Studies in Anatomy; a Lab Course	3
AHPT 6312	Neuroscience in Orthopaedic Physical Therapy	3
AHPT 6313	Biomechanics in Orthopaedic Physical Therapy	3
AHPT 6314	Motor Control in Orthopaedic Physical Therapy	3
AHPT 6317	Radiological Anatomy	3
AHPT 6318	Musculoskeletal Management of Chronic Pelvic Pain	3
AHPT 6319	Contemporary Topics in Autonomous Practice	3

Teaching Track

This track emphasizes the theories, skills, and tools required for effective teaching in Physical Therapy. Students' clinical projects will emphasize the development, implementation and evaluation of a course or course component with other health professionals, patients, or the general public.

EDUCATION COURSES

D.P.T. & Master's graduates attend 1, BSPT graduates attend all

Courses		Credit Hours
AHPT 7404	Educational Evaluation in Allied Health	4

CLINICAL PROJECT

D.P.T., Master's, and B.S.P.T. graduates and BSPT graduates attend all

Courses		Credit Hours
AHPT 7000	Clinical Research/ Education Project	2
AHPT 7104	Clinical Research/ Education Project Presentation	1
AHPT 7305	Curriculum Design and Teaching in Allied Health	3

Research Track

This track emphasizes the theories, skills, and tools required for effective research in Physical Therapy. Students' clinical projects will emphasize the development, implementation, analysis and discussion of a clinical research project in a practice setting.

STATISTICS COURSES

D.P.T. & Master's graduates attend 1, BSPT graduates attend all

Courses		Credit Hours
AHPT 7406	Advanced Statistics in Allied Health Sciences	4

CLINICAL PROJECT

D.P.T. & Master's graduates and BSPT graduates attend all

Course		Credit Hours
AHPT 7000	Clinical Research/ Education Project	2
AHPT 7104	Clinical Research/ Education Project Presentation	1
AHPT 7301	Seminar in Clinical Research Design	3

During post-professional studies, students are required to adhere to all program policies and academic and behavioral guidelines as stated in the Physical Therapy Doctoral Student Policy Manual. Expenses incurred during all weekend courses and clinical rotations are the responsibility of the student.

Course Descriptions

AHPT 6201 Advanced Clinical Practice for Shoulder Afflictions (2:2:0) Examination and treatment of dysfunction in the shoulder complex. Lecture components include advancements in patho-anatomy, biomechanics, interpretation of functional examination, pathology, and treatment approaches to arthritis / arthrosis, impingement, instability, labral afflictions, and soft tissue lesions. Clinical laboratory sessions include surface anatomy, basic functional examination and special tests, soft tissue treatments, and joint-specific treatment measures. This course includes management approaches to Arthritis / Arthosis, Impingement, Instability, labral afflictions, and soft tissue lesions. Case studies will be discussed and mock clinic sessions will be conducted.

AHPT 6202 Advanced Clinical Practice for Elbow & Forearm Afflictions (2:2:0) Examination and treatment of dysfunction in the elbow / forearm complex. Lecture components include advancements in patho-anatomy, biomechanics, interpretation of functional examination, pathology, and treatment approaches. Clinical laboratory sessions include surface anatomy, basic functional examination and special tests, soft tissue treatments, and joint-specific treatment measures. Management approaches to arthritis / arthosis, instability, peripheral nerve mobility limits and entrapment, and soft tissue

afflictions (including tendinitis and bursitis). Case studies will be discussed and mock clinic sessions will be conducted.

AHPT 6203 Advanced Clinical Practice for Wrist & Hand Afflictions (2:2:0) Examination and treatment of dysfunction in the wrist / hand complex. Lecture components include advancements in patho-anatomy, biomechanics, interpretation of functional examination, pathology, and treatment approaches. Clinical laboratory sessions include surface anatomy, basic functional examination and special tests, soft tissue treatments, and joint-specific treatment measures. Management approaches to arthritis / arthrosis, instability, peripheral nerve mobility limits and entrapment (including carpal tunnel syndrome), and soft tissue afflictions (including tendinitis and tenosynovitis). Case studies will be discussed and mock clinic sessions will be conducted.

AHPT 6204 Advanced Clinical Practice for Hip Afflictions (2:2:0) Examination and treatment of dysfunction in the hip complex. Lecture components include advancements in patho-anatomy, biomechanics, interpretation of functional examination, pathology, and treatment approaches. Clinical laboratory sessions include surface anatomy, basic functional examination and special tests, soft tissue treatments, and joint-specific treatment measures. Management approaches to arthritis / arthrosis, instability, peripheral nerve mobility limits and entrapment, labral afflictions, and soft tissue afflictions (including tendinitis and bursitis). Case studies will be discussed and mock clinic sessions will be conducted.

AHPT 6205 Advanced Clinical Practice for Knee Afflictions (2:2:0) Examination and treatment of dysfunction in the knee complex. Lecture components include advancements in patho-anatomy, biomechanics, interpretation of functional examination, pathology, and treatment approaches. Clinical laboratory sessions include surface anatomy, basic functional examination and special tests, soft tissue treatments, and joint-specific treatment measures. Management approaches to arthritis / arthrosis, instability, meniscal afflictions, and soft tissue afflictions (including tendinitis and bursitis). Case studies will be discussed and mock clinic sessions will be conducted.

AHPT 6206 Advanced Clinical Practice for Ankle & Foot Afflictions (2:2:0) Examination and treatment of dysfunction in the ankle / foot complex. Lecture components include advancements in patho-anatomy, biomechanics, interpretation of functional examination, pathology, and treatment approaches. Clinical laboratory sessions include surface anatomy, basic functional examination and special tests, soft tissue treatments, and joint-specific treatment measures. Management approaches to arthritis / arthrosis, instability, peripheral nerve mobility limits and entrapment (including tarsal tunnel syndrome), and soft tissue afflictions (including tendinitis, tenosynovitis, fasciitis, and bursitis). Case studies will be discussed and mock clinic sessions will be conducted.

AHPT 6207 Advanced Clinical Practice for Upper Cervical Spine Afflictions (2:2:0) Examination and treatment of dysfunction in the Upper Cervical

complex. The lecture components of this course include advancements in patho-anatomy, biomechanics, interpretation of functional examination, pathology, and treatment approaches. Clinical laboratory sessions include surface anatomy, basic functional examination and special tests, soft tissue treatments, and joint-specific treatment measures. Management approaches to arthritis / arthrosis, chondropathy / chondromalacia, instability, degeneration, cervicogenic headache, vascular afflictions, and soft tissue afflictions. Case studies will be discussed and mock clinic sessions will be conducted.

AHPT 6208 Advanced Clinical Practice for Lower Cervical Spine (Disc Segment) Afflictions (2:2:0) Examination and treatment of dysfunction in the Cervical Disc Segments (CDS). Lecture components include advancements in patho-anatomy, biomechanics, interpretation of functional examination, pathology, and treatment approaches. Clinical laboratory sessions include surface anatomy, basic functional examination and special tests, soft tissue treatments, and joint-specific treatment measures. Management approaches to 1° disc afflictions, 2° disc afflictions, instability, stenosis / spondylosis, and soft tissue afflictions. Case studies will be discussed and mock clinic sessions will be conducted.

AHPT 6209 Advanced Clinical Practice for Cervico-Thoracic Junction Afflictions & TOS (2:2:0) Examination and treatment of dysfunction in the Cervico-Thoracic Junction. Lecture components include advancements in patho-anatomy, biomechanics, interpretation of functional examination, pathology, and treatment approaches. Clinical laboratory sessions include surface anatomy, basic functional examination and special tests, soft tissue treatments, and joint-specific treatment measures. Management approaches to 1° disc afflictions, 2° disc afflictions, instability, thoracic outlet syndrome (TOS), and soft tissue afflictions. Case studies will be discussed and mock clinic sessions will be conducted.

AHPT 6210 Advanced Clinical Practice for Thoracic Spine & Rib Afflictions (2:2:0) Examination and treatment of dysfunction in the Thoracic Spine and ribs. Lecture components of include advancements in patho-anatomy, biomechanics, interpretation of functional examination, pathology, and treatment approaches. Clinical laboratory sessions include surface anatomy, basic functional examination and special tests, soft tissue treatments, and joint-specific treatment measures. Management approaches to 1° disc afflictions, 2° disc afflictions, instability, arthrosis / arthritis, and soft tissue afflictions. Case studies will be discussed and mock clinic sessions will be conducted.

AHPT 6211 Advanced Clinical Practice for SacroIliac and Lumbar Primary Disc Afflictions (2:2:0) Examination and treatment of lumbar 1° disc related disorders, as well as dysfunction at the sacroiliac joint. Lecture components include advancements in patho-anatomy, biomechanics, interpretation of functional examination, pathology, and treatment approaches. Clinical laboratory sessions include surface anatomy, basic functional examination and special tests, soft tissue treatments, treatment to 1° disc afflictions, and joint-

specific treatment measures to the sacroiliac joint. Management approaches to 1° disc afflictions, as well as sacroiliac joint hypomobilities and hypermobilities. Case studies will be discussed and mock clinic sessions will be conducted.

AHPT 6212 Advanced Clinical Practice for Lumbar Secondary Disc Afflictions (2:2:0) Examination and treatment of 2° Disc related disorders in the Lumbar Spine. Lecture components include advancements in patho-anatomy, biomechanics, interpretation of functional examination, pathology, and treatment approaches. Clinical laboratory sessions include surface anatomy, basic functional examination and special tests, soft tissue treatments, and joint-specific treatment measures. This course includes management approaches to instability, stenosis / spondylosis, arthritis / arthrosis, chondropathy / chondromalacia, and soft tissue afflictions. Case studies will be discussed and mock clinic sessions will be conducted.

AHPT 6213 Clinical Internship (2:2:0) Prerequisite: Consent of the Instructor. This course provides a clinical internship for the Sc.D. student. During this 3-week rotation, the Sc.D. student will be given the opportunity to develop and enhance advanced clinical skills associated with evaluation and treatment of the extremities. The student will be guided by a clinical mentor and will be provided the opportunity to utilize skills in problem solving, diagnosis, treatment selection and management implementation for orthopaedic dysfunction in the spine and or extremities. Prerequisites: 6 of the previous listed clinical courses.

AHPT 6214 Clinical Internship II (2:2:0) Prerequisite: Consent of the Instructor. This course provides a second phase of clinical internship for the Sc.D. student. During this 4-week rotation, the student will be given the opportunity to develop and enhance advanced clinical skills associated with evaluation and treatment of the spine. The student will be guided by a clinical mentor and will be provided the opportunity to utilize skills in problem solving, diagnosis, treatment selection and management implementation for orthopaedic dysfunction in the spine and or extremities. Prerequisites: All 12 of the previously listed clinical courses.

AHPT 6215 Research Internship I (2:2:0) Represents an independent research internship for the Sc.D. student. During this independent study, the Sc.D. student will be given the opportunity to conduct directed literature review and concept development that pursues a line of inquiry that is agreed upon between the student and faculty mentor. Data collection and analysis are not required, but may be included in the process when appropriate. A manuscript will be required for course completion. Prerequisites: Completion of six of the clinical courses (AHPT 6201-12).

AHPT 6216 Research Internship II (2:2:0) Represents a continuation of AHPT 6215. During this independent study, the Sc.D. student will continue the process begun in AHPT 6215, with emphasis on the development of concepts and hypotheses, analysis and synthesis of ideas, and evaluation of current clinical research practices in the pre-selected area of study. Data collection and

analysis are not required, but may be included in the process when appropriate. A manuscript will be required for course completion. Prerequisites: Completion of all clinical courses (AHPT 6201-12) and AHPT 6215.

AHPT 6301 Issues in Orthopaedic Physical Therapy and Manual Therapy I (3:3:0) Presents a survey of the professional issues surrounding the advanced practice of orthopedic physical therapy and manual therapy. The first part of this course includes topics related to the history of orthopedic manual therapy, legal and ethical aspects of manual therapy, risk management, and communication and patient education in clinical management. The second part of this course includes a survey of the technological tools that will be using throughout the Sc.D. and professional experiences.

AHPT 6302 Issues in Orthopaedic Physical Therapy and Manual Therapy II (3:3:0) Presents a survey of selected topics in Basic and Applied Science as they relate to orthopedic physical therapy and manual therapy. The discussions will highlight topic areas that include imaging, pharmacology, neurophysiology, histology, exercise physiology, and applied medical science.

AHPT 6303 Basic and Applied Science in Orthopaedics (3:3:0) Prerequisite: AHPT 7302 or consent of the instructor. Addresses select basic science processes associated within the musculoskeletal system. Topics include histology and physiology of bone, cartilage, tendons, and ligaments. Muscle physiology will be discussed as it relates to orthopaedic dysfunction.

AHPT 6304 Orthopaedic Physical Therapy Screening (3:3:0) Enhances knowledge and clinical skills designed to assist in the screening of patients for orthopaedic conditions which require examination by a physician. Experiences should strengthen professional communication between physical therapists and physicians. Radiology and laboratory screening are presented as special topics to further the therapist's understanding of pathology and the clinical implications of patient presentation.

AHPT 6305 Updates in Orthopaedic Surgical Management (3:3:0) Evaluates recent developments from the literature in orthopaedic surgical management, in terms of indications, methodology, and rehabilitation. Emphasis will be placed on the implications of each procedure for rehabilitation. Specific rehabilitation measures will be discussed and related to techniques taught in other Sc.D. courses.

AHPT 6311 Clinical Studies in Anatomy; a Lab Course (3:3:0) Evaluation of prosected human cadaveric specimens with emphasis on musculoskeletal structures. Each ½ day session will include a short lecture at the beginning for review of anatomical structures to be observed, as well as the relevance of each of those structures to examination and treatment of orthopaedic afflictions.

AHPT 6312 Neuroscience in Orthopaedic Physical Therapy (3:3:0) Prerequisite: AHPT 6302 or consent of the instructor. This course addresses

select neuroscience processes associated within the musculoskeletal system. These include the neuroscience of motor planning, initiation and control; sensory function and integration; and dysfunction of the nervous system as it relates to orthopaedic afflictions, including pain production and control.

AHPT 6313 Biomechanics in Orthopaedic Physical Therapy (3:3:0) Examines theory and application of biomechanical principles to orthopaedic Physical Therapy practice. This course will emphasize the biomechanics of musculoskeletal structures, including bone, cartilage, ligament, tendon, and muscle tissue. Emphasis on joint and tissue mechanics will be related to musculoskeletal injury and orthopaedic affliction.

AHPT 6314 Motor Control in Orthopaedic Physical Therapy (3:3:0) Relates theory and application of motor control and learning principles to orthopaedic Physical Therapy practice. Emphasis on motor control strategies associated with musculoskeletal function, and motor control dysfunction associated with orthopaedic pathologies. Integration of concepts from exercise science and experimental psychology for the explanation of relevant issues concerning motor learning and control for the orthopaedic patient. Patient management strategies derived from these principles will be discussed.

AHPT 6315 Advanced Healthcare Administration (3:3:0) Addresses fundamental and contemporary issues in organization and management of Physical Therapy services, with an emphasis on the ambulatory Physical Therapy setting. Topics will include design, structure, and effective operation of contemporary healthcare services; strategic planning, conflict resolution, managed care systems, insurance regulations, and 3rd-party reimbursement. Evaluation of cost control, cost benefit analysis, financial ratio analysis, and business plan analysis.

AHPT 6316 Marketing in Outpatient Physical Therapy (3:3:0) Addresses fundamental and contemporary issues in marketing, as they apply to outpatient Physical Therapy services. Topics include epidemiology, market analysis, managerial economics, financial planning, marketing strategy decisions, structural relationships, marketing tactics, forecasting, marketing ethics, and entrepreneurship.

AHPT 6317 Radiologic Anatomy (3:3:0) Examines the technology and applications of imaging for understanding normal and pathological human anatomy. Plain-film imaging, MRI, CT, and diagnostic ultrasound will be appropriately applied to this discussion. A systematic approach to understanding various images across different joint systems will be provided. In addition, specific normal and pathological anatomy for the spine and extremities will be viewed on x-ray, MRI, and CT, along with special topics in diagnostic ultrasound. Emphasis will be placed on defining normal and pathological anatomy associated with various joints systems as it relates to musculoskeletal conditions. These topics will be related to evidence-based clinical practice of musculoskeletal

disorders that is appropriate for the Physical Therapist. Evidence-based readings and web-supported tutorials will be utilized.

AHPT 6318 Musculoskeletal Management of Chronic Pelvic Pain (3:3:0) Is designed to integrate the understanding of orthopedic musculoskeletal diagnoses with knowledge of the visceral systems to improve management of patients with chronic pelvic pain. Screening of the urogenital, gastrointestinal and gynecological systems will be incorporated into the musculoskeletal examination of related joint regions along with understanding of traditional medical evaluation. Additionally, this course will enhance the knowledge of peripheral and central pain mechanisms for both the somatic and autonomic systems. At the conclusion of this course, the student will have developed a rationale for physical therapy interventions targeted at each of these systems as well as the ability to effectively communicate this information to the team of medical practitioners managing these conditions.

AHPT 6319 Seminar in Contemporary Topics in Autonomous Practice (3:3:0) This course will address selected topics in modern orthopaedic Physical Therapy practice. This course will emphasize special topics not covered in the other courses within the ScD curriculum. Selected special topics will serve as the cornerstone of the course, including modern soft tissue examination and management, while other topics will change in pace with changes in contemporary Physical Therapy clinical practice. Patient examination and management strategies derived from these principles will be discussed.

AHPT 7000 Clinical Research / Education Project (2:2:0) Student's independent clinical project. Project will center on either a clinical research or teaching design. Content and goals will be established through mutual consent between the student and his or her Project Committee.

AHPT 7104 Clinical Research / Education Project Presentation (1:1:0) Allows students to present the development and findings from the clinical project (with either a research or teaching emphasis) before the Sc.D. faculty, other students and clinicians from the community.

AHPT 7301 Seminar in Clinical Research Design (3:3:0) Allows students to study methods in clinical research. Includes processes of obtaining, processing, interpreting, and using clinical data.

AHPT 7305 Curriculum Design and Teaching in Allied Health (3:3:0) Discussion of the theories and applications of curriculum design, emphasizing applications to entry-level and post-professional educational settings in Physical Therapy. Students are exposed to core theories, principles and applications that relate to teaching Physical Therapy students and professionals.

AHPT 7404 Educational Evaluation in Allied Health (4:4:0) Discusses educational evaluation theory and tools, emphasizing methods of objective and performance-based evaluation. Principles of reliability and validity will

be discussed and applied to each evaluation tool. Students will learn to draft specific evaluation measures used in an educational setting.

AHPT 7406 Advanced Statistics in Allied Health Sciences (4:4:0) This course will familiarize the student with various tools used in parametric and non-parametric statistical analyses. Parametric tools will include Pearson r correlation, regression, t-test, analysis of variance, and selected multivariate designs. Non-parametric tools will include one, two, and k-sample designs; as well as Spearman, phi, and point biserial correlation coefficients. The course will include single-subject design, sequential clinical trials, and survey methodology. Emphasis will be placed on research findings that evaluate specific clinical populations. Track: Research.

Program in Rehabilitation Sciences

Program Description

Rehabilitation science is an integrated and interdisciplinary body of knowledge, skills and abilities that are derived from the foundational applied sciences that support and inform the physical clinical rehabilitation professions of physical therapy, occupational therapy, and athletic training. The Doctor of Philosophy (PhD) in Rehabilitation Sciences program at TTUHSC aims to educate the next generation of faculty and scholars (teachers and researchers) who will advance knowledge within the clinical rehabilitation professions and educate future rehabilitation health professionals, to improve the lives of people with functional impairments.

Admission to the Program

Admission to the Doctor of Philosophy in Rehabilitation Sciences program is competitive and is based in part on the candidate's academic record, professional experiences, goals, interests, GRE scores, and potential to substantively contribute to the field of rehabilitation sciences. Candidates for admission must hold a bachelor's degree or higher in a related field (e.g., physical therapy, occupational therapy, athletic training, kinesiology, biology, medicine, biomedical engineering, etc.). Candidates must submit official transcripts that reflect the earned degree and a minimum cumulative GPA of 3.0 out of 4.0. Candidates who hold a Bachelor's degree must have an undergraduate GPA of 3.0 or better, while candidates who hold a higher degree must have at least a 3.0 GPA for each undergraduate and graduate degree, as applicable. Candidates also must submit official GRE scores (verbal, quantitative, analytical, writing); at least three letters of recommendation; a formal and well-crafted letter of intent specifying appropriate goals, interests, and work or other experiences consistent with the objectives of the program; a current resumé; and any other pertinent information that is volunteered. Candidates who speak English as a second language must submit official TOEFL scores. Qualified candidates will be interviewed by at least one member of the PhD admissions committee prior to a formal decision about acceptance into the program.

Applications for admission may be submitted at any time. However, to ensure full consideration for available assistantships, applicants are encouraged to apply before February 1 for the following Summer and Fall semesters. Similarly, students may enroll in Summer or Fall semesters, but are encouraged to begin in the Summer semester to ensure the optimum sequencing of courses during the first year of study.

Program Curriculum

The PhD in Rehabilitation Sciences program is an interdisciplinary program that requires completion of 88 semester credit hours post-baccalaureate, including 76 semester credit hours of course work and 12 semester credit hours of dissertation. Up to 24 semester credit hours may be transferred from an approved master's program. Students entering the program who hold a bachelor's degree or a master's degree without a thesis must successfully complete a research project within the program prior to embarking on dissertation research. All students must successfully complete a qualifying examination for admission to candidacy prior to beginning the dissertation. All students must successfully complete a doctoral dissertation.

The PhD in Rehabilitation Sciences program curriculum consists of five major content areas: Rehabilitation Sciences core (32 credit hours), pedagogy and teaching (5 credit hours), approved electives (12 credit hours), research tools (21 credit hours), and research (18 credit hours, including 12 credit hours of dissertation). Students will enroll in courses at TTUHSC and TTU and typically will enroll continuously in Summer, Fall, and Spring semesters. Students will emphasize a primary area of specialization in the rehabilitation sciences based on their selection of elective courses and faculty advisor. Students will develop a secondary area of academic interest based on their selection of elective courses and examination committee members. Doctoral students may pursue research in clinical anatomy, clinical biomechanics, clinical musculoskeletal rehabilitation, clinical neuromuscular and postural control, or clinical behavior.

Course Descriptions

AHRS 5100 History and Philosophy of Rehabilitation Sciences (1:1:0) An exploration of the history and philosophy of physical rehabilitation, key sub-disciplines, and the applied sciences that support and inform the physical rehabilitation professions.

AHRS 5200 Physiology of Body Systems (2:2:0) A survey of human physiology including key concepts related to the function and biological control of cells, tissues, organs, and body systems. Basic principles of physiology are addressed with focus on the coordinated functions and activities of specific body systems: nervous, musculoskeletal, cardiorespiratory, immune, endocrine, gastrointestinal, and other body systems. Emphasis is given to normal system function, interaction, and homeostasis and the ways that these contribute to the functions of the body as a whole. Abnormal function and interaction will also be addressed.

AHRS 5205 Research Design and Statistics (2:2:0) An introduction to research design and statistics. Students will obtain the requisite knowledge about the research process and experimental designs commonly used in pre-clinical and clinical studies. The course will present the fundamental concepts of descriptive statistics and statistical inference.

AHRS 5303 Biomechanics (3:3:0) Biomechanics of the musculoskeletal system and integrated human movement with clinically relevant applications.

AHRS 5330 Seminar in Health Care Policy and Administration (3:3:0) Seminar devoted to the study of major issues facing U.S. healthcare in the 21st century. Topics will include an overview of U.S. healthcare organizations and delivery systems, economics of healthcare policy, issues of access to care, managed care, quality assessment, and healthcare finance.

AHRS 5418 Neuroscience (4:4:0) Functions and pathologies of the central nervous system (CNS) as a basic science course in the neurorehabilitation curriculum. The emphasis will be on "systems-level neuroanatomy," i.e., functional neuroanatomy (e.g., motor and sensory pathways) and regional neuroanatomy (e.g., organization of spinal cord, brainstem, cerebral cortex, etc.). In addition, information processing by neurons will be addressed by coverage of axon physiology, synaptic neurotransmission and plasticity. The course will first survey the anatomical organization of the CNS, then sensory and motor functions of the CNS, and finish with a description of a number of neurological disorders that have clinical relevance to rehabilitation clinicians.

AHRS 5500 Gross Anatomy (5:3:6) An integrated study of gross human anatomy embodying gross morphology and coordinating with developmental and histological aspects of the body. Included is regional dissection with emphasis on the musculoskeletal, nervous, circulatory and respiratory systems.

AHRS 6100 Seminar in Rehabilitation Sciences (1:1:0) Selected topics in rehabilitation sciences research and professional development explored through reading and discussion. This course may be repeated for credit if the student enrolls under a different topic.

AHRS 6150 Teaching Apprenticeship (1) Students will participate in teaching a course in rehabilitation sciences while under faculty supervision. This individual studies course may be repeated for credit.

AHRS 6200 Methods in Rehabilitation Sciences Research (2) Methods and laboratory techniques in rehabilitation sciences research under the tutelage of a faculty mentor. The student will enroll in a section based on the desired research laboratory rotation. Current rotations are available in clinical anatomy, clinical biomechanics, clinical musculoskeletal rehabilitation, clinical postural control, and clinical behavior research laboratories. This individual studies course may be repeated for credit if the student enrolls under a different topic.

AHRS 7000 Research (V1-12) Students will participate in rehabilitation sciences research while under faculty supervision.

AHRS 8000 Doctoral Dissertation (V1-12) Research for an advanced degree. The Doctor of Philosophy degree in Rehabilitation Sciences is a research degree and is conferred only after recognition of high achievement in independent scientific research and scholarship.

The PhD in Rehabilitation Sciences curriculum also includes courses from other graduate programs in the Department of Rehabilitation Sciences, as well as from other departments at Texas Tech University Health Sciences Center and Texas Tech University.

DEPARTMENT OF CLINIC ADMINISTRATION AND REHABILITATION COUNSELING

Program in Clinical Services Management

The objective of this program is to expand educational access to graduates of community college technical programs in allied health disciplines who frequently find themselves blocked from advancement educationally and professionally because of the technical emphasis in their Associate of Applied Sciences (A.A.S.) degree. This program provides the appropriate educational foundation and prerequisite credit hours to students who have an A.A.S. degree and desire to pursue a baccalaureate degree. The program also offers the didactic educational requirements for a long-term care administration track. Community college graduates are the primary candidates for the program. Examples are Certified Occupational Therapy Assistants, Physical Therapy Assistants, Radiology Technologists, Respiratory Care Technicians, Medical Technologists, and Emergency Medical Technicians.

Program Description

The B.S., CSM degree program operates as a "2 + 2" format to provide wide exposure to the skills, knowledge, and abilities needed for success in supervisory management in the U.S. healthcare delivery system. The B.S., CSM degree program will prepare students with the competencies needed to enter various supervisory and entry-level management positions in hospital-based departments or sub-units, community based healthcare operations, long term care facilities, sub-acute care facilities, home health agencies, independent living centers, and ambulatory clinics. Upon completion of the program, students will possess the competencies and skills necessary for successfully meeting the challenges presented by the current and evolving healthcare delivery system.

Requirements for graduation will include the successful completion of a minimum of 120 semester credit hours. The program courses are conveniently offered through the use of distance education technology by using WebCT and internet access. The curriculum structure will follow a non-traditional format, which allows for completion of degree requirements at a pace set by the ability and availability of the student.

Admission to the Program

Unconditional Admission: Students who have an Associate of Applied Sciences degree in an allied health discipline, an overall GPA of 2.5 on a 4.0 scale, and have completed the common core curriculum requirement for a baccalaureate degree, can apply for unconditional admission to the CSM program.

Provisional Admission: Applicants who have less than a 2.5 grade point average; prerequisite course work completed over seven years prior to the application date; have not completed the common core curriculum requirements for a baccalaureate degree; have an A.A. or A.S. degree; or have 67 credit hours of lower division B.S. degree courses work; may be granted provisional admission. Students accepted on this basis must demonstrate their ability to meet the

academic demands of the program by passing all courses and maintaining a 2.7 GPA in their first year of study (30 credit hours) to remove the provisional status.

Core Curriculum Prerequisites	Hours
English	6
Natural Science	6
History	6
Social Science	3
Math	3
Visual & Performing Arts	3
Political Science	6
Humanities	3
Core Curriculum Electives	6
	Total Hours = 42

Application Process

Applications may be submitted at any time. It is in the best interest of the applicant to apply as early as possible prior to the semester in which the applicant plans to begin.

Applications must be completed online. Additional application materials should be sent to the Texas Tech University Health Sciences Center, Office of the Registrar, 3601 4th Street, Stop 8310, Lubbock, Texas 79430.

CSM Curriculum

The program consists of 54 semester credit hours of upper-level undergraduate courses. Courses will rotate and students will register as they appear each semester. Students will select courses from their degree plan and register each semester to complete the 120 hour degree plan objective. The distance education format relies primarily on internet based (WebCT) courses offerings. The program requires the completion of all required core courses prior to enrollment in the advanced management courses and electives.

Students enrolled in the Clinic Services Management (CSM) program are required to complete the final six (6) academic hours through CSM program courses. Exceptions to this policy may be considered by the Program Director on a case by case basis.

Required Core Courses

AHCM 4302	Financial Management for Clinical Supervisors
AHCM 4303	Principles of Personnel Management for Clinical Supervisors
AHCM 4304	Management of Clinical Support Services in Healthcare Organizations
AHCM 4306	Marketing Principles and Entrepreneurship
AHCM 4311	US Healthcare System

Required Advanced Management Courses:

AHCM 4313	Community Health Issues
AHCM 4314	Quality Assurance/Risk Management
AHCM 4317	Statistics for Healthcare Supervisors
AHCM 4331	Leadership in Healthcare Organizations
AHCM 4318	Healthcare Law/Ethics
AHCM 4401	Healthcare Management Information Systems
AHCM 4477	Case Study – Summer I
AHCM 4478	Case Study – Summer II

Elective Courses*

AHCM 4305	Capital Project Design
AHCM 4308	Organizational Behavior
AHCM 4312	Foundations of Managed Care
AHCM 4315	Issues in Gerontology for Healthcare Managers
AHCM 4316	Integrated Deliver Systems and Organizational Relationships
AHCM 4320	Long-term Care Management
AHCM 4321	Regulatory Aspects of Long Term Care
AHCM 4360	Special Topics
AHCM 4361 S	Special Topics

**Students must complete any four of the elective courses.*

Course Descriptions

AHCM 4302 Financial Management for Clinical Supervisors (3:3:0) Examines the basic principles of financial management related to clinical support activities. Topics will include healthcare accounting systems, revenue planning, cost accounting, departmental budgeting, resource management allocation, and reimbursement programs that are common to the clinical support service setting.

AHCM 4303 Principles of Personnel Management for Clinical Supervisors (3:3:0) Provides an overview of interpersonal dynamics, conflict resolution, and supervisor responsibilities. Topics include task analysis, developing position descriptions, recruiting, employee supervision, labor law, benefit programs,

and personnel contracts. Includes a review of case studies that demonstrate the impact of the human resource functions in healthcare organizations.

AHCM 4304 Management of Clinical Support Services in Healthcare Organizations (3:3:0) Provides an overview of operations management and practical decision-making by analyzing the day-to-day operations in clinical support service activities. Identification of problem solving approaches to problems in personnel staffing, personnel training and directing, performance measurement, patient flow, facility configuration, materials management.

AHCM 4305 Capital Project Design (3:3:0) Methods for management of capital projects. Topics include financial considerations, procurement, site preparation, contracting, scheduling, and acceptance for operational readiness.

AHCM 4306 Marketing Principles and Entrepreneurship for Healthcare Professionals (3:3:0) The course covers the principles of marketing and their application in healthcare delivery systems. Topics include the concepts and tools to conduct a community needs assessment, market research, and creation of a business plan for the delivery of healthcare services.

AHCM 4308 – Organizational Behavior (3:3:0) An overview of group and organizational structures and dynamics that affect individual, group, and organizational behavior. Topics include performance, job satisfaction, motivation, groups, decision making and task design.

AHCM 4311 The U.S. Healthcare System (3:3:0) A review of the healthcare system, both public and private sector. Examines the system's organizational structures and the legislative, legal, and market impacts upon the current integrated delivery system. The course will review all levels such as healthcare systems (For–Profit and Not-For–Profit), inpatient facilities, hospital based services, outpatient services, home health agencies, sub-acute care facilities, and long term care. Topics include rural healthcare issues, areas designated as medically under-served and health professional shortage areas (HPSAs), legislation, healthcare operations, and regional networks.

AHCM 4312 Foundations of Managed Care (3:3:0) Examines principles of managed care and contemporary issues in the organization and administration of managed healthcare organizations. Topics include ambulatory organizations, integrated delivery systems, providing services to a population through a medical group practice, and managed care contracting.

AHCM 4313 Community Health Issues (3:3:0) A review of national, state, and local community agencies; preventive health services, public health, wellness, personal fitness, stress management, changing lifestyles, and analysis of national issues in the past 50 years. Includes a review of statistical principles used by management in the healthcare industry. Topics will cover community health in a defined population, determining prevalence rates, origins and causes, mortality and morbidity rates, and determining effectiveness of healthcare services.

AHCM 4314 Quality Assurance and Risk Management (3:3:0) The course provides an overview of legal requirements and ethical standards in healthcare. Topics include the principles of Total Quality Management (TQM), Continuous Quality Improvement (CQI), Joint Commission on Accreditation of Healthcare Organizations (JCAHO) requirements, quality assurance, risk management, outcomes measures, benchmarking, and utilization management in the clinical support service setting. Includes an overview of case law that has resulted from the expectations of patients and payers; fiduciary responsibility of hospital boards and districts, and changing technology.

AHCM 4315 Issues in Gerontology for Healthcare Managers (3:3:0) Overview of the physical, psychosocial, cognitive, cultural, and environmental factors that affect persons as they age. Special topics include financial and administrative issues that affect patient services, adaptive equipment, assistive technology, and community resources.

AHCM 4316 Integrated Delivery Systems and Organizational Relationships (3:3:0) An overview of the components and organizational issues of integrated delivery systems, the interaction of interdisciplinary staff composed of technicians and professionals, team building, product line service delivery and operational management in the clinical support service setting.

AHCM 4317 Statistics for Healthcare Supervisors (3:3:0) Introduction to descriptive and inferential statistics, quantitative and qualitative research designs, and relate their application for clinical and managerial operations in a healthcare organization.

AHCM 4318 Healthcare Law & Ethics (3:3:0) An introduction to the regulatory, legal, and ethical issues related to the healthcare delivery industry. Topics of study are directed toward reimbursement issues; utilization review; HIPPA; patient rights; malpractice; long-term regulatory issues; and federal, state, and local statutes.

AHCM 4320 Long Term Care Management (3:3:0) An overview of the nursing home industry and the managerial requirements associated with long term care institutions. Topics of study focus on an introduction to: state and federal regulatory aspects of facility management, care delivery systems, reimbursement and personnel administration

AHCM 4321 Regulatory Aspects of Long-Term Care (3:3:0) Analysis and application of regulatory requirements in the daily operational environment of a certified and licensed long term care facility are covered. Topics in this course will include; Texas, Federal and JCAHO regulatory requirements in the care, architectural and life safety code compliance issues of long term care facility operations.

AHCM 4331 Leadership in Healthcare Organizations (3:3:0) The course presents an overview of management theory and leadership principles. Topics

include behavioral and managerial practices with emphasis upon interpersonal relations, problem solving skills, time management, stress management, and wellness.

AHCM 4360, 4361 Special Topics (3:3:0) Guided independent research projects with focus upon a management problem in the clinical support service setting. Examples are assistive technology, early childhood intervention, grant writing, independent living centers, or rehabilitation services.

AHCM 4363 – Long-Term Care Practicum (3:3:0) This supervised practical work experience, conducted in an approved long-term care facility, will prepare the student for a career as a Licensed Long Term Care Administrator through practical application of the didactic curriculum. Two semesters of this practicum are required to take the nursing home administrator licensure examination. Perquisites: consent of the instructor.

AHCM 4401 Healthcare Management Information Systems (4:4:0) A course in the basic concepts and the tools for collecting and analyzing data used by healthcare organizations. Topics include an overview of current desktop computer technology, local area networks (LAN) and integration of information system networks. Emphasis will be placed upon applications to medical records, patient registration systems, and appointment systems. Medical records administration will include the basic concepts and principles of creating, maintaining, and archiving medical information with consideration for legal requirements and confidentiality and explore the area of electronic media.

AHCM 4477, 4478 Case Study–Management Project in Special Topics (4:2:4) Guided independent management project with a focus upon a problem related to the specialty area of their A.A.S. degree discipline, or professional interest in a healthcare management issue. Students learn to enhance their knowledge within the clinical support service management field by application of the concepts, principles and tools learned in the classroom.

Program in Clinical Practice Management

Healthcare providers are often promoted into supervisory positions with minimal if any management training. This lack of training often leads to frustration and dissatisfaction on the part of the healthcare professional. The goal of the Master of Science in Clinic Practice Management is to offer a superior graduate level program consisting of evidence-based research, a focused management-based curriculum, individualized instruction, and mechanisms for personal and professional growth as a leader in the healthcare field.

The MSCPM is designed to provide practicing clinicians, allied health providers, and administrators with skills that will allow them to excel as a healthcare leader. The increasing complexity of theoretical and applied knowledge required for healthcare leadership and the growing demand for innovative problem solvers has necessitated the development of a cost-effective graduate program geared toward future healthcare leaders.

The degree is entirely distance-based, designed specifically to increase the availability to as many working healthcare leaders as possible. The use of WebCT in association with the Internet will provide a top-quality educational program requiring no coursework requirements on a traditional campus. The program is focused towards the practicing clinician, allied health providers, administrator, or other executive working in, or supporting the healthcare system.

Admission to the Program

Individuals applying to the program should already hold a bachelor's degree from a regionally accredited college or university. A health related degree is preferred, but not required for admissions into the program. To be considered for admission, an overall grade point average of 2.7 on a 4.0 scale in the last 60 hours of college credit is required. Provisional admission may be offered to applicants with a GPA less than 2.7. Such applications will be reviewed on an individual basis.

The following are considered in the admissions process:

- All official college transcripts
- Acceptable grade point average
- Working healthcare (or related) experience
- The GRE/GMAT is not required

Application Process

Applications may be submitted at anytime; however, applications are considered approximately 3 months prior to the beginning of each term. It is in the best interest of the applicant to apply as early as possible. Applicants should understand that fulfillment of the basic requirements does not guarantee admission.

CPM Curriculum

The following courses are offered at least once every year. MSCPM students entering the program will be required to complete 36 semester hours to meet degree requirements. They will include 30 hours of core class requirements and 6 hours of elective courses. Practice Management II is considered a capstone course, and may only be taken if the student has completed at least half of the requirements.

Required Core Courses

AHCP 5302	Consumer Dimensions of Healthcare
AHCP 5303	Research Methods
AHCP 5305	Leadership of Healthcare Organizations
AHCP 5306	Healthcare Delivery System
AHCP 5307	Practice Management I
AHCP 5308	Practice Management II
AHCP 5309	Decision Making with Business Statistics
AHCP 5310	Coding and Healthcare Law
AHCP 5311	Healthcare Finance and Resource Management
AHCP 5312	Marketing and Strategic Planning

Electives*

AHCP 5301	Healthcare Foundations
AHCP 5315	Professional Development and Healthcare Ethics
AHCP 5316	Independent Study
AHCP 5317	Public Policy
AHCP 5320	Long-Term Care Management
AHCP 5321	Regulatory Aspects of Long-Term Care
AHCP 5363	Long-Term Care Practicum

**Students must complete any two of the elective courses.*

AHCP 5301 Healthcare Foundations (3:3:0) The purpose of this class is to focus on stakeholder dynamics in healthcare. Special emphasis is placed on payer, provider, patient and employer relationships as they relate to issues of cost, quality and access in the healthcare delivery system. As a class capstone project, students use an assigned healthcare theoretical model, or an environmental issue, and are asked to forecast stakeholder behavior in the practice setting.

AHCP 5302 Consumer Dimensions of Healthcare (3:3:0) This course examines the influence of social-economic factors such as age, gender, ethnicity, race, and financial status on healthcare delivery. The focus is to provide the practicing clinician with a more effective background to facilitate a culturally competent approach to healthcare. Topics include organizational culture, customer-oriented service, contemporary demographic trends, and their implication for effective clinical practice.

AHCP 5303 Research Methods (3:3:0) This course provides the basic statistical and methodological principles underlying clinical and theoretical research, research design, and techniques for conducting appropriate literature reviews. Students will critically evaluate measurement systems, interpretations of findings, and methodologies applied within the literature.

AHCP 5305 Leadership in Healthcare Organizations (3:3:0) The emphasis of this course is on understanding the fundamentals of leadership as it applies to leading allied health personnel in healthcare organizations. A heavy emphasis is placed on understanding the seminal concepts of leadership as it applies to organizational behavior and theory in practice. Several leadership, personality and ability-job-fit diagnostic tests are given to students to discern natural leadership tendencies. These competencies and skills are later applied to case studies in leading and managing change in organizations. Measurement of leadership performance is evaluated.

AHCP 5306 Healthcare Delivery System (3:3:0) This course provides the student with the basic understanding of the local and international origins, evolution, and trends in institutional and non-traditional healthcare delivery. Hospitals, ambulatory care organizations, managed care organizations, integrated delivery systems, and other models are discussed in detail. Additionally, various practitioners' roles in the delivery of care within the different models are addressed.

AHCP 5307 Practice Management I (3:3:0) This course discusses managerial principles, operations, and functions within healthcare delivery systems. Examination will focus on issues such as organizational design, operational measurement, and stakeholder management. Topics include theories of leadership, management, customer service, and negotiation.

AHCP 5308 Practice Management II (3:3:0) The course includes personnel management, organizational behavior, and operational issues within healthcare delivery systems. Examination will focus on individual, interpersonal, and group management, employment law, selection, discipline, motivation, staffing, productivity and team building.

AHCP 5309 Decision Making with Statistics (3:3:0) Decision Making with Statistics is a unique blend of statistics, research methods, theory and decision-making practices applied to real world healthcare issues in the practice setting. The class is designed to give students experience working with large data sets, and confidence in selecting appropriate quantitative tools in management analysis using SPSS.

AHCP 5310 Coding and Healthcare Law (3:3:0) This course addresses current CPT and HCPCS coding issues and healthcare related laws. The course will provide the learner with current coding requirements, reimbursement changes, and legal issues facing the healthcare industry. Topics include utilization review, HIPPA, patient rights, and malpractice legislation.

AHCP 5311 Healthcare Finance and Resource Management (3:3:0) This course concentrates on learning the fundamentals of Business Case Analysis (BCA). The purpose of this class is to assist the student in developing the necessary analytical ability, attitudes and decision making skills required of the clinical practice manager in a changing environment. The course provides in-depth knowledge of the business case analysis approach to decision-making in the ambulatory setting.

AHCP 5312 Marketing and Strategic Planning (3:3:0) The purpose of this class is to integrate key aspects of marketing and strategic planning into a blended class that results in the completion of an integrated Business Plan for a new capital venture. The class examines strategic planning techniques, concepts, and practices as they apply to organizational survival. Leadership responsibilities regarding the creation of mission, vision, goals and objective statements are explored. The second half of the course integrates marketing with strategic planning such that the"Five P's" of marketing, and the complementary roles of public relations, advertising, and sales (the marketing mix) are captured in the organizational analysis.

AHCP 5315 Professional Development and Healthcare Ethics (3:3:0) This course guides the student's growth through professional development. Topics include effective communication, education, professionalism, ethical issues, practice expectations, and promotion of the student's profession.

AHCP 5316 Independent Study (3:0:0) Students are offered the choice of doing an independent comprehensive literature review, research, or practice-based work related to gerontology. Students design their study plan with faculty assistance.

AHCP 5317 Public Policy and Issues in Aging (3:3:0) This course focuses on the development and evaluation of public policy, state and federal legislative processes, insurance and financial planning, retirement income, protective services, and legal issues that affect the population, especially older individuals. The course investigates current events related to the public policy implementation, using both educational and consumer based literature.

AHCP 5320 Long Term Care Management (3:3:0) An overview of the nursing home industry and the managerial requirements associated with long term care institutions. Topics of study focus on an introduction to: state and federal regulatory aspects of facility management, care delivery systems, reimbursement and personnel administration

AHCP 5321 Regulatory Aspects of Long-Term Care (3:3:0) Analysis and application of regulatory requirements in the daily operational environment of a certified and licensed long term care facility are covered. Topics in this course will include; Texas, Federal and JCAHO regulatory requirements in the care, architectural and life safety code compliance issues of long term care facility operations.

AHCP 5330 Information to Biomedical Informatics (3:3:0) This course will introduce the student to the uses of information technology as it applies to healthcare, including information retrieval, electronic medical records, physician order entry, telemedicine, consumer health informatics, security, privacy and confidentiality in the electronic environment, HIPAA regulations, ethics, computerized medical imaging, and decision support. The course will provide the student with the fundamental knowledge about information technology (IT) necessary to practice within the modern healthcare environment.

AHCP 5363 Long-Term Care Practicum (3:3:0) This supervised practical work experience, conducted in an approved long-term care facility, will prepare the student for a career as a Licensed Long Term Care Administrator through practical application of the didactic curriculum. Two semesters of this practicum are required to take the nursing home administrator licensure examination. Perquisites: consent of the instructor.

Program in Rehabilitation Counseling

The RC Profession

Work and working are highly valued in our society. Rehabilitation Counselors provide and coordinate services for individuals with a range of physical, psychiatric, and/or developmental disabilities. These professionals work to assist clients in gaining the skills and resources necessary to obtain meaningful work and lead full and self-satisfying lives. This is done through a range of activities, including: counseling, provision of adaptive equipment, vocational training, job placement, modifying the work environment, and assisting client's to cope effectively with their environment and function as independently as possible.

This Rehabilitation Counselor education curriculum is designed to involve the learner as an active participant in the essential knowledge, skills and attitudes necessary for competent practice in the field; and conforms closely to the stated requirements for the graduate education of rehabilitation counseling professionals as set forth by accrediting and certification bodies. It is the intent of the program to graduate students who are:

- Ready to acknowledge the importance of ensuring dignity, independence, and wellness for persons with disabilities;
- Dedicated to adhering to the key values, standards, and codes of ethics as set forth by state and national licensing and certifying bodies;
- Engaged in reflective, creative problem-solving;
- Responsive to the needs of persons with disabilities;
- Sensitive to the collaborative therapeutic relationship;
- Involved in leadership roles to develop and enhance services;
- Able to act as a responsible advocate for persons with disabilities.

Graduates of the program can seek employment in state agencies, non-profit organizations, healthcare facilities, private rehabilitation firms, insurance companies, health management organizations, probation and corrections fields, educational institutions, private industry, and research organizations. The program actively recruits students from diverse populations and has a minority rate of 25%. Since the inception of the program over 87% of students who enter the program finish with their degree or certification requirements.

Program Purpose Statement

It is our purpose to provide a quality comprehensive rehabilitation counselor education program that is progressive in the areas of pedagogy, technology and research that fosters students' personal and professional growth and provides leadership in the field at the local and national levels.

Program Goals

- To recruit, educate and graduate a diverse population of students who are prepared to provide rehabilitation counseling services in a variety of employment settings.
- To provide a rigorous academic environment that provides a solid foundation to prepare entry level Rehabilitation Counselors who meet national certification standards.
- To work closely with the public and private rehabilitation communities to ensure well-trained graduates who are considered valued employees.
- To develop a faculty that is valued by our students and the rehabilitation community for our teaching, research, and service.
- To achieve the highest quality program possible within the constraints of available financial, human, technological, and time resources.
- To develop commitment within students to empower individuals with disabilities to identify and maximize their resources to meet their developmental, vocational, independent living, and educational needs.
- To instill within students a commitment to develop a life -ong commitment to learning professionalism continuing education throughout their career.

Accreditation

The Masters of Rehabilitation Counseling Program is accredited by the Council on Rehabilitation Education (CORE). Graduates of the TTUHSC program enjoy full benefits of CORE accreditation and may sit for the CRC examination.

Program Description

The Master of Rehabilitation Counseling (MRC) degree program is a distance education, 48 semester credit hour graduate program designed to provide a comprehensive exposure to the field of Rehabilitation Counseling. The MRC program was designed specifically for people who cannot attend traditional types of graduate programs. The program is ideal for people who are employed full time, who live in rural or isolated areas; have family or personal responsibilities that prevent them from taking on-campus study; or who simply cannot take extended time off to attend school. Texas Tech University Health Sciences Center (TTUHSC) uses a variety of methods and technologies to maximize the students' educational experience, including web and internet based technologies, teleconferencing, hard copy, videotape/audiotape, and at-site practicum experiences. These and other strategies are employed to ensure that all students, regardless of geographic location, are able to participate to the maximum degree possible in all aspects of their program. Students are not required to come to the TTUHSC campus.

Clinical Education

Clinical education is an integral aspect of the program. The MRC program complies with all requirements for practicum and clinical internships as set forth by the relevant accrediting and certifying organizations. In order to meet these requirements, Rehabilitation Counseling students will be required to undertake two forms of practical education during their program. First, all students will participate in a 100 hour supervised rehabilitation counseling practicum (broken into two courses for those students entering after Fall, 2008), which fosters personal growth, provides active learning experiences, enhances student insights into individual, group, and organizational behavior, and introduces students to counseling approaches and the rehabilitation issues that affect service delivery. Delivered on a distance basis, these experiences will combine applied instruction by faculty with supervised practicum experiences in off campus settings, either at the student's place of employment (when appropriate) or in designated rehabilitation settings.

Second, all students will be required to undertake a 600 hour supervised internship in a rehabilitation setting. Students undertaking supervised employment in Rehabilitation Counseling settings may, with Program approval, utilize these locales for their internship experiences. Students not so employed shall be assisted in locating placements in appropriate, supervised rehabilitation settings.

Admission to the Program

Individuals applying to the program should already hold a bachelor's degree from a regionally accredited college or university, preferably in a related area such as psychology, social work, special education, sociology, nursing, and related disciplines, however all disciplines are accepted. To be considered for admission, an overall grade point average of 2.7 on a 4.0 scale for all college credit is required. Provisional admission may be offered to applicants with a GPA of less than 2.7. Such applications will be reviewed on an individual basis. Graduate Record Examination (GRE) or Millers Analogies Test (M.A.T.) scores are NOT required for entry into the MRC program. Prior work or volunteer experience in human service settings is considered a valuable attribute for applicant's, but is not mandatory. Students who have previously taken relevant coursework may be able to apply for advanced credit for certain courses. Persons with disabilities are strongly encouraged to apply.

Application Process

The MRC Program has a rolling admission policy, however, students applying for the Fall semester must submit an application by June 1 and those applying for Spring semester must submit an application by October 1. All new students will be required to participate and pass a non-credit orientation course prior to their starting semester.

Students will submit a completed application form, transcripts, a letter from the applicant outlining their rationale for applying to the program, 2 letters of reference, and a resume. Qualified candidates will be contacted for an interview. It is the applicant's responsibility to assure that all supporting documentation is received by the Admissions Department. Application materials and detailed information on application procedures and admission criteria can be accessed via the Texas Tech University Health Sciences Center, School of Allied Health Sciences' web site at http://www.ttuhsc.edu/sah. Applications for non-degree seeking students wishing to participate in selected MRC courses are accepted up to three weeks prior to the start of the semester.

Rehabilitation Counseling Curriculum

CORE COURSEWORK

Course		Credit Hours
AHRC 5301	Foundations of Rehabilitation Counseling	3
AHRC 5302	Counseling Theories	3
AHRC 5303	Medical Aspects of Disability	3
AHRC 5305	Case Management	3
AHRC 5306	Psycho-Social Aspects of Disability	3
AHRC 5307	Career Counseling Theory and Practice	3
AHRC 5308	Research Methodologies & Interpretation of Research Findings	3
AHRC 5309	Group Counseling Theory and Practice	3
AHRC 5321	Vocational Assessment	3
AHRC 5360	Seminar in Professional Development	3
		Total Hours = 30

PRACTICAL EXPERIENCE

Course		Credit Hours
AHRC 5398	Practicum I/Microcounseling	3
AHRC 5399	Practicum II	3
AHRC 5416	Clinical Internship I	4
AHRC 5517	Clinical Internship II	5
		Total Hours = 15

ELECTIVES*

Course		Credit Hours
AHRC 5310	Special Topics/Seminars in Vocational Rehabilitation	3
AHRC 5342	Rehabilitation and Substance Abuse	3
AHRC 5343	Introduction to Private Sector Rehabilitation	3
AHRC 5346	Psychiatric Rehabilitation	3

**Three (3) credit hours are required, additional elective credits are optional.*

Certification

Upon completion of the MRC program, students will possess the competencies and experiences necessary to take the national certification examinations, and if successful, be accredited as a Certified Rehabilitation Counselor (CRC).

Course Descriptions

AHRC 5301 Foundations of Rehabilitation Counseling (3:3:0) Introduction to the history and philosophy of rehabilitation, and the legislative and policy background underpinning the modern delivery of rehabilitation counseling services. Exploration of the organizational structure of current rehabilitation counseling services, and the legal and ethical standards which guide them. Discussion of societal issues, trends, and developments in rehabilitation, and their impact upon consumer review, choice, and personal responsibility.

AHRC 5302 Counseling Theories (3:3:0) Introduction to the principles of behavior, personality, and human development. Exploration of individual, group, and family counseling theories and practices as they apply to persons with disabilities.

AHRC 5303 Medical Aspects of Disability (3:3:0) Introduction to the medical aspects and implications of disability. Review of medical terminology, functional limitations, medical treatment and vocational implications as they apply to rehabilitation counseling. The identification of appropriate medical intervention resources is discussed.

AHRC 5305 Case Management (3:3:0) Review of the case management process, including case finding, service coordination, and client advocacy. Discussion of the planning process to maximize personal independence, and the role of the rehabilitation counseling process in the identification and use of community resources. The role of computer technology in case load management, functional assessment, job matching, etc. Emphasis is placed on the rehabilitation counseling professional as part of an interdisciplinary team. The role, functions, and utilization of other professionals, particularly rehabilitation professionals such as occupational therapists, physical therapists, communication disorders specialists, etc, will be explored.

AHRC 5306 Psycho-Social Aspects of Disability (3:3:0) Exploration of the psychological and social aspects of disability, with particular emphasis on the impact of the disability experience from the perspective of the rehabilitation counseling services consumer. The implications of each disorder on the client's personal, social and occupational functioning will be addressed. Special attention is given to psychological disorders on treatment planning, counseling and rehabilitation.

AHRC 5307 Career Counseling Theory and Practice (3:3:0) This course covers career guidance, career development, career theory and development of employment and placement options of persons with disabilities. This course will include review of major career theories and approaches to career development and exploration. Practical skills covered include job analysis, job development, work site modification, role of assistive technology, job placement, employer contacts, labor market surveys, supported employment, post placement support, job coaching and building of natural supports. Emphasis will be placed on relevant legislation and it's impact on the employment of people with disabilities.

AHRC 5308 Research Methodologies and Interpretation of Research Findings (3:3:0) Exploration of current trends in research in rehabilitation and related fields. Basic research design, methodologies, analysis, and interpretation will be reviewed. A discussion of the applications of research methodologies, findings, and interpretations in guiding and evaluating rehabilitation counseling practice (e.g. - choosing interventions, planning assessments, evaluating results, etc.) is also included.

AHRC 5309 Group Counseling Theory and Practice (3:3:0) This course is designed to prepare counselors to become knowledgeable and skillful in using theoretical constructs of group counseling with individuals with disabilities. Attention is given to theories of counseling, elements of leadership in group counseling, healthy and dysfunctional behaviors, culturally diverse perspectives, and legal and ethical issues.

AHRC 5310 Special Topics/Seminars in Rehabilitation Counseling (3:3:0) Specialized seminars or courses in specific areas of rehabilitation counseling as identified by faculty, students, or the community.

AHRC 5321 Vocational Assessment (3:3:0) Exploration of the approaches, techniques, instruments, and interpretation of vocational assessment, with a strong emphasis on the identification and integration of assessment information from a multi-disciplinary perspective. The strengths and weaknesses of assessment information in the rehabilitation counseling process are discussed within the context of the overall role of assessment in assisting the individual.

AHRC 5342 Rehabilitation Substance Abuse (3:3:0) The objective of this course is to increase the student's knowledge of the different types of drugs/substances, addictions and effects of the drugs and substances. Provide and overview of the counseling treatments and modalities used to serve persons with addictions, especially those with other disabilities. The student will gain knowledge about the effects on the family and increase awareness of various forms of prevention.

AHRC 5343 Introduction to Private Sector Rehabilitation (3:3:0) This course focuses on the work of rehabilitation counselors in a proprietary, or private setting. An introduction to the different areas of rehabilitation services in the private sector, and the means for preparing for each area of employment. Comparison of private vs. public sector rehabilitation philosophy. Focus on workers compensation, case management, disability management, long-term disability, and forensic rehabilitation. Examination of resources unique to the field, and ethical and legal considerations of private sector rehabilitation.

AHRC 5346 Psychiatric Rehabilitation (3:3:0) Addresses the issues and methods of working with persons that experience psychiatric disabilities. The course will cover areas of psychopathology, assessment issues, treatment and service options, and vocational and integration issues.

AHRC 5360 Seminar in Professional Development (3:3:0) The purpose of this course is to provide opportunities for synthesis, integration, and application of prior and concurrent coursework in the Master of Rehabilitation Counseling program. It is designed to focus on professional orientation issues related rehabilitation counseling. Such issues will include, but not be limited to: legal and ethical issues, licensure and certification, counseling issues, conflict mediation, and consultation.

AHRC 5398 Practicum I/Microcounseling (3:3:0) Practicum I provides an understanding of the philosophic bases of the helping process, with an emphasis on helper self-understanding and self-development. The purpose of the course is to provide an onsite-clinical observation experience, experiential role plays, and practical application exercises to enable you to learn and practice the skills basic to the counseling process, to integrate and structure skills to meet client needs, and to gain an understanding of the ethical standards of the profession. Attention is given to understanding the psychological significance of the rehabilitation counseling relationship and to the development of the specific skills of counseling. This course is a pre-practicum experience. This course is designed to help you gain knowledge of the basic communication and relationship development skills required of a professional rehabilitation counselor and to gain competence in their application in a supervised laboratory setting. Through feedback provided by the instructor and peers, you will have the chance to develop and enhance your counseling skills. Within the class we will strive for a mutually supportive environment that will promote both professional and personal growth and development.

AHRC 5399 Practicum II (3:3:0) Supervised rehabilitation counseling practicum fosters personal growth, skills development, and insights into the rehabilitation counseling process and issues that affect service delivery. Includes both on-line and off-line experiences in settings that facilitate the development of basic rehabilitation counseling and practice skills. This course may be repeated if the 100 hour requirement is not met. Completion of this course is prerequisite for the internship phase of the program.

AHRC 5416 Clinical Internship I (4:4:0) Supervised rehabilitation counseling internship located in a rehabilitation counseling services setting. Internship activities will include an orientation to program components, policies and procedures; an introduction to staff and their role and function; review of confidentiality and ethical standards; observation of all aspects of rehabilitation counseling services; work assignments encompassing the tasks of regularly employed rehabilitation counselors from intake to placement and/or discharge; reporting/charting and all documentation requirements as set forth by the organization, evaluation of student performance (including self-evaluation, field site supervisor evaluation, and faculty supervisor evaluation). Note: contributes towards the mandatory 600-hour clinical internship requirements as outlined for CORE accreditation and CRCC certification. (AHRC 5416 is 4 graduate credit hours; AHRC 5517 is 5 graduate hours) Courses may be repeated if the 600 hour requirement is not met, and may be taken simultaneously.

AHRC 5517 Clinical Internship I1 (5:5:0) Supervised rehabilitation counseling internship located in a rehabilitation counseling services setting. Internship activities will include an orientation to program components, policies and procedures; an introduction to staff and their role and function; review of confidentiality and ethical standards; observation of all aspects of rehabilitation counseling services; work assignments encompassing the tasks of regularly employed rehabilitation counselors from intake to placement and/or discharge; reporting/charting and all documentation requirements as set forth by the organization, evaluation of student performance (including self-evaluation, field site supervisor evaluation, and faculty supervisor evaluation). Note: contributes towards the mandatory 600-hour clinical internship requirements as outlined for CORE accreditation and CRCC certification. (AHRC 5416 is 4 graduate credit hours; AHRC 5517 is 5 graduate hours) Courses may be repeated if the 600 hour requirement is not met, and may be taken simultaneously.

AHRC 5611 Practicum (6:6:0) (Only for Students Enrolled in Program Prior to Fall 2008) Supervised rehabilitation counseling practicum fostering personal growth, skills development, and insights into the rehabilitation counseling process and issues that affect service delivery. Includes both on-line and off-line experiences in settings that facilitate the development of basic rehabilitation counseling and practice skills. This course may be repeated if the 100 hour requirement is not met. Completion of this course is a prerequisite for the internship phase of the program.

FACULTY DIRECTORY

ALIFF, Michelle, Assistant Professor of Rehabilitation Counseling, 2007; B.A., University of Arizona, 2001; M.R.C., Texas Tech University Health Sciences Center, 2005.

AOYAMA, Katsura, Associate Professor of Speech, Language and Hearing Sciences, 2009; B.A., Kansai University, Japan, 1995; M.A., University of Hawaii, 1997; Ph.D., University of Hawaii, 2000.

APTE, Gail, Assistant Professor of Physical Therapy, 2006; B.A., San Francisco State University, 1979; Certificate in Physical Therapy, Mayo School of Health Related Sciences, 1981; Sc.D., Texas Tech University Health Sciences Center, 2006.

ARNOLD, Kimberlie, Clinical Instructor in Speech, Language and Hearing Sciences, 2006; B.S., University of Texas-Austin, 1991; M.A., University of Texas-Austin, 1992.

BENNETT, Katie, Assistant Professor in Clinical Laboratory Science and Molecular Pathology, 2009; B.S., West Texas A&M University, 2000; Ph.D. Texas Tech University Health Sciences Center, 2009.

BOGSCHUTZ, Renee, Assistant Professor of Speech, Language and Hearing Sciences, 2001; B.A., Eastern New Mexico University, 1993; M.S., Eastern New Mexico University, 1995; Ph.D., University of Iowa, 2000.

BRISMEE, Jean-Michel, Associate Professor of Physical Therapy, 1997; B.S., Catholic University of Louvain, Belgium, 1982; M.S., Texas Tech University, 1996; Sc.D., Texas Tech University Health Sciences Center, 2003.

BROOKE, Paul P., Dean, 1998; B.A., St. Joseph's Seminary & College, 1964; M.H.A., Baylor University, 1976; M.M.A.S., U.S. Army Command & Staff College, 1979; Ph.D., University of Iowa, 1986.

BYERS, Katherine, Assistant Professor of Rehabilitation Counseling, 2007; B.A., Rice University, 1989; M.H.S., University of Florida, 1991; Ph.D., University of Florida, 2004.

CHESTNUTT, Jacqueline, Academic Instructor and Lab Manager in Clinical Laboratory Science and Molecular Pathology, 2002; B.S., Texas Tech University Health Sciences Center, 1997.

CHRISTENSEN, Bruce E., Assistant Professor and Clinical Coordinator, Physician Assistant Studies, 2007. B.S. Nebraska (Medical Center), 1992; M.P.A.S., Nebraska (Medical Center), 1997.

COPPOLA, M. Nicholas., Associate Professor of Clinical Practice Management, 2007; B.Sc., Christ College, Liverpool U (hon), 1986; B.A., State U of New York, 1987; M.S.A., Central Michigan University, 1995; M.H.A., Baylor, 1997; Ph.D., Medical College of Virginia Campus, Virginia Commonwealth, 2003.

CORWIN, Melinda D., Associate Professor of Speech, Language and Hearing Sciences, 2009; B.S., Texas Tech University, 1987; M.S., Texas Tech University, 1989; Ph.D., Texas Tech University, 2006.

DANIEL, John, Associate Professor of Physical Therapy, 1991; B.A., University of Delhi, India, 1975; BLS, Iowa State University, 1990; M.A., University of Iowa, 1991; Ed.D, Texas Tech University, 1999.

DEDRICK, Greg, Assistant Professor of Physical Therapy, 2003; B.S., University of North Texas, 1994; B.S., University of Texas Medical Branch El Paso, 1994; M.P.T., University of Texas at El Paso, 1996; Sc.D., Texas Tech University Health Sciences Center, 2005.

DEMBOWSKI, James, Assistant Professor of Speech, Language and Hearing Sciences, 2004; B.S., Northwestern University, 1975; M.S., University of Texas at Dallas, 1988; Ph.D., University of Wisconsin-Madison, 1998.

DENDLE, Brittany, Clinical Instructor of Speech, Language and Hearing Sciences, 2008; B.S. Texas Tech University Health Sciences Center, 2003; M.S. Texas Tech University Health Sciences Center, 2005.

DIEMER, Donald O., Assistant Professor and Coordinator of Clinical Education, 2006; B.S., Southern Illinois University, 1990; B.S. University of Nebraska, 1996; M.P.A.S., University of Nebraska Medical Center, 1998.

DOMENECH, Manuel, Regional Dean of Odessa, 2005; Assistant Professor and Assistant Program Director of Physical Therapy, 2004; B.S. Physical Therapy University of Kansas, 1976; M.S. Virginia Commonwealth, 1982; Ed.D. Oklahoma State University, 1985; D.P.T. MGH Institute for Health Professions, 2008.

DRAGGA, Linda, Clinical Instructor in Speech, Language and Hearing Sciences, 2005; B.A., Colby College, 1974; M.A., Ohio University, 1977.

FLORES, Lisa, Assistant Professor in Speech, Language and Hearing Sciences, 1999; B.S., Texas Tech University, 1993; M.S., Texas Tech University Health Sciences Center, 1996; Au.D., Texas Tech University Health Sciences Center, 2002.

GARNER, Cassie, Assistant Professor of Speech, Language, and Hearing Sciences, 2008; B.A., University of Nebraska-Lincoln, 2002; M.S., University of Nebraska-Lincoln, 2004; Ph.D., University of Nebraska-Lincoln, 2007.

GEDDIE, Matthew, Assistant Professor of Occupational Therapy, 2003; B.S., Texas Tech University Health Sciences Center, 1994; M.B.A., Wayland Baptist University, 2002.

GILBERT, Kerry, Associate Professor, 2009, and Program Director of Physical Therapy, 2004; B.S., University of Texas, 1993; M.P.T., Texas Tech University Health Sciences Center, 1997; Sc.D., Texas Tech University Health Sciences Center, 2004.

GUSTAFSON, Tori J., Associate Professor of Speech, Language and Hearing Sciences, 2008; B.S., Texas Tech University, 1990; M.S., Texas Tech University, 1992; Au.D., Central Michigan University, 2003.

HAMILTON, Lynne A., Assistant Professor of Clinical Laboratory Science and Molecular Pathology, 2003; B.S., Texas Tech University, 1983; MT (ASCP), 1983; M.S., Texas Tech University, 1996; Ph.D., Texas Tech University, 2002.

HARPSTER, Anna, Assistant Professor of Rehabilitation Counseling, 2007; B.A., University of Nebraska-Lincoln, 1995; M.S., University of Nebraska-Kearney, 2001; Ph.D., University of Iowa, 2005.

HENDRIX, Ericka, Clinical Coordinator and Academic Instructor of Clinical Laboratory Science and Molecular Pathology, 2004; B.S., Texas Tech University, 1997; M.S., Texas Tech University Health Sciences Center, 2003.

HICKS, Candace Bourland, Associate Professor of Speech, Language and Hearing Sciences and Program Director of Audiology Program, 2001; B.S.E., Arkansas State University, 1992; M.S., Purdue University, 1995; Ph.D., Vanderbilt University, 2000.

HOLLAND, Hesper, Clinical Instructor of Speech, Language and Hearing Sciences; B.S. Texas Tech University Health Sciences Center, 2001; M.S. Texas Tech University Health Sciences Center, 2003.

HOOTEN, Michael, Regional Dean of Amarillo and Assistant Professor of Clinical Services Management, 1999; B.S., Texas Tech University, 1981; M.H.A., Baylor University, 1990; Ed.D., Texas Tech University, 2004.

HOOPER, Troy L., Assistant Professor of Athletic Training, 2007; B.S., Angelo State University, 1996; M.P.T., Texas Tech University Health Sciences Center, 2001.

HOUSE, Morgan, E., Assistant Professor of Clinical Services Management, 2005; B.S. Wayland Baptist University, 2002; M.B.A., Wayland Baptist University, 2003.

HUBBARD, Joel D., Associate Professor of Clinical Laboratory Science and Molecular Pathology, 1990; B.S., Texas Tech University, 1976; M.T. (ASCP), Baptist Memorial Hospital (Dallas), 1977; Ph.D., Texas Tech University Health Sciences Center, 1986.

JACKSON, John, Assistant Professor of Occupational Therapy, 2003; B.S., Medical College of Georgia, 1986; M.A., Texas Woman's University, 1998.

JAMES, C. Roger, Associate Professor of Physical Therapy and Director of the Center for Clinical Rehabilitation Research, 2004; B.S., Southwest Missouri State University, 1998; M.S., University of Oregon, 1991; Ph.D., University of Oregon, 1996.

JANKOWSKI, James E., Assistant Professor and Clinical Coordinator of Physician Assistant Studies, 2004; B.S., Southwest TexasState University, 1991; M.Ed., Southwest State University, 2000; M.P.A.S., Texas Tech University Health Sciences Center, 2006.

KELLER, Michael, J., Program Director and Assistant Professor of Clinical Practice Management, 2005; B.S., West Texas State University, 1979; B.S.N., West Texas State University, 1981; M.B.A., Wayland Baptist University, 1987.

KELLER, Judith P., Assistant Professor of Speech, Language and Hearing Sciences and Clinical Coordinator, 1993; B.S., Texas Tech University, 1987; M.S., Texas Tech University, 1990.

KOUL, Rajinder, K., Associate Dean, Chair and Professor of Speech, Language and Hearing Sciences, 1994; B.Sc., University of Mysore. 1984; M.Sc., University of Mysore, 1986; Ph.D., Purdue University, 1994.

KUMAR, Neeraj, Assistant Professor of Physical Therapy, 2008; B.S., Manipal Academy of Higher Education, 1996; M.S., Guru Nanak Dev University, 1998.

LARSEN, Hal S., Associate Dean, Chair, Department of Laboratory Science and Primary Care 1987; Professor of Clinical Laboratory Science, 1989; B.S., Brigham Young University, 1970; M.S., 1973; M.T. (ASCP), Utah Valley Hospital, 1974; CLS (NCA), 1984; Ph.D., University of Nebraska Medical Center, 1980.

LEFAVE, Dee Ann, Clinical Instructor in Speech, Language and Hearing Sciences, 2005; B.S., Texas Tech University, 1985; M.S., Texas Tech University, 1988.

MAXWELL, Elvin E., Associate Professor and Program Director of Physician Assistant Studies, 2003; B.S., University of Nebraska Medical Center, 1977; M.A., Webster College, 1981; M.P.A.S., University of Nebraska Medical Center, 1999.

MCGALLIARD, Michael, Assistant Professor of Physical Therapy; B.S. Abilene Christian University, 1994; M.P.T. Texas Tech University Health Sciences Center, 1997; Sc.D., Texas Tech University Health Sciences Center, 2008.

O'BRIEN, Lucille, Assistant Professor and Clinical Coordinator, 2006, Physician Assistant Studies, 2004. M.P.A.S., Texas Tech HSC, 2003.

PASCHALL, D. Dwayne, Associate Professor of Speech, Language and Hearing Sciences, 1996; B.A., Baylor University, 1989; M.S., University of Texas-Dallas, 1992; Ph.D., University of Texas-Dallas, 1995.

PASUPATHY, Rubini, Assistant Professor of Clinical Services Management, 2003; B.A., Texas Tech University, 1998; M.B.A., Texas Tech University, 2003.

PERRY, Carolyn, Clinical Instructor of Speech, Language and Hearing Sciences, 2004; B.S., Texas Tech University, 1991; M.S., Texas Tech University, 1993.

POSTERARO, Robert H., Assistant Professor of Clinical Practice Management, 2009; B.S., Fordham College, 1969; M.D., Yale University School of Medicine, 1973; M.B.I., Oregon Health & Science University, 2005.

POTTER, Joan, Assistant Professor of Physical Therapy, 1999; B.S., University of Texas Southwest Medical Center, 1991; M.S., West Texas A&M University, 2002.

POULSEN, Daniel, Assistant Professor of Physical Therapy, 2005; B.S., State University of New York-Buffalo, 2000; M.A., State University of New York-Buffalo, 2002.

RAMEY, Kevin, Assistant Professor of Physical Therapy, 2008; B.S., University of Texas at San Antonio, 1998; M.S., University of North Texas, 2001.; Ph.D., Texas Tech University, 2008.

REEL, Leigh Ann, Assistant Professor of Speech, Language and Hearing Sciences, 2009; B.B.S., Hardin-Simmons University; Au.D. , Texas Tech University Health Sciences Center, 2005; Ph.D. , Texas Tech University Health Sciences Center, 2009.

RICE-SPEARMAN, Lori, Associate Professor and Program Director of Clinical Laboratory Science and Molecular Pathology, 1988; B.S. Texas Tech University Health Sciences Center, 1986; M.T. (ASCP), 1986; M.S., Texas Tech University, 1991.

RUSHING, Charter, Assistant Professor of Physical Therapy, 2008; M.P.T., Texas Tech University Health Sciences Center, 1997.

SANCIBRIAN, Cheryl L., Associate Professor of Speech, Language and Hearing Sciences and Program Director of Speech-Language Pathology, 1993; B.S., Texas Tech University, 1976; M.S., Texas Tech University, 1978.

SATTERWHITE, C. Robin, Associate Professor of Clinical Services Management, 2008; Associate Dean of Learning Outcomes and Technologies, 2005; Chair, Department of Clinic Administration and Rehabilitation Counseling, 2005; B.B.A., Texas Tech University, 1992; M.B.A., Texas Tech University, 1997; Ed.D., Texas Tech University, 2004.

SAWYER, Barbara G., Professor of Molecular Pathology and Clinical Laboratory Science, 1993; B.A., Stephen F. Austin State University, 1974; B.S., University of Texas Southwestern Medical Center, 1977; MT (ASCP), 1977; Ph.D., University of Texas Southwestern Medical Center, 1988; CLSp (Molecular Biology), 2001.

SAWYER, Steven F., Associate Dean for Faculty Development; Associate Professor of Physical Therapy, 2001; Chair, Department of Rehabilitation Sciences, 2003; Program Director, Master of Physical Therapy program, 2002; Assistant Professor of Physical Therapy, 1994; B.S., University of California at Irvine, 1980; Ph.D., University of California at San Diego, 1988; M.P.T., Texas Tech University Health Sciences Center, 1997.

SCOTT, Dawndra A., Assistant Professor and Program Director of Occupational Therapy, 2001; B.S., Texas Tech University, 1992; B.S., Texas Tech University Health Sciences Center, 1994; M.A., Texas Woman's University, 2001; Ph.D., Texas Tech University, 2006.

SIMS, Frankie, Clinical Instructor in Speech, Language and Hearing Sciences, 1998; B.S., Texas Tech University, 1976; M.S., Texas Tech University, 1978.

SIZER, Phillip S., Program Director of Doctor of Science Program in Physical Therapy, 2002; Professor of Physical Therapy, 1990; B.S., University of Texas Medical Branch, 1985; M.S., Texas Tech University, 1994, Ph.D., Texas Tech University, 2002.

SMITH, Michael P., Assistant Professor of Athletic Training, 2000; B.S., State University of New York-Plattsburgh, 1994; M.S., Arizona School of Health Sciences, 1997; Ph.D., Texas Tech University, 2005.

SPEARS, Evans, Assistant Professor and Program Director of Rehabilitation Counseling, 2002; B.A. Coe College, 1991; M.A., University of Iowa, 1994; Ph.D. University of Arizona, 2003.

STEADMAN, Natalie D., Assistant Professor and Clinical Education Coordinator of Athletic Training, 2005; B.S., Texas Tech University, 1990; B.S. P.T., Texas Tech University Health Sciences Center, 1992; M.A.T., Texas Tech University Health Sciences Center, 2002.

STICKLEY, Lois A., Assistant Professor and Assistant Program Director of Physical Therapy, 1996; B.S., Texas Woman's University, 1982; M.S., Texas Woman's University, 1987, Ph.D., Texas Tech University, 2002.

TATUM, Tootie, Associate Professor of Molecular Pathology, 2009, and Assistant Program Director of Molecular Pathology, 2002; B.S., Texas Tech University, 1994; M.S., Texas Tech University, 1997, Ph.D., University of New Mexico, 2002; CLSp (MB), MP (ASCP), 2003.

TAYLOR, LesLee, Associate Professor of Athletics Training, 2009, and Program Director of Athletic Training, 2000; B.S., University of Kansas, 1993; M.S. University of Arizona, 1995; Ph.D., Texas Tech University, 2001.

TAYLOR, Michael A., Associate Professor and Clinical Coordinator of Physician Assistant Studies, 2004; B.S., University of Oklahoma Health Science Center, 1982; M.P.A.S., University of Nebraska Medical Center, 1997.

TIONGCO, Cindi, Assistant Professor of Occupational Therapy, 2008; B.S.O.T., Texas Tech University Health Sciences Center, 2002; M.O.T., Texas Tech University Health Sciences Center, 2002.

WHISNER, Sandra, Assistant Professor of Occupational Therapy, 2003; B.B.A., Texas Tech University, 1992; B.S., Texas Tech University Health Sciences Center, 1997; M.A., Texas Woman's University, 2003.

WILKINSON, William J., Assistant Professor of Physical Therapy, 2006. B.S., Texas State University, 1984; M.S., University of North Texas, 1988; M.D., University of Texas Health Sciences Center (San Antonio), 1994.

YOUNG, Monica, Clinical Instructor in Speech, Language and Hearing Sciences, 2007; B.S., Texas Tech University Health Sciences Center, 2002; M.S. Texas Tech University Health Sciences Center, 2004.

ZUPANCIC, Steven, Assistant Professor of Speech, Language, and Hearing Sciences, 2006; B.S., Eastern New Mexico University, 1999; Au.D., Texas Tech Health Sciences Center, 2003; Ph.D., Texas Tech University Health Sciences Center, 2007

SUBJECT INDEX

Subject Index