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




2007 - 2008
Course 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 79401
(p) 806.743.3220
(f) 806.743.2994
www.ttuhsc.edu/sah

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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.)
- 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.)

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 fifteen programs are organized into four Departments:

- Department of Clinic Administration and Rehabilitation Counseling
  - Program in Clinical Services Management
  - Program in Clinical Practice Management
  - Program in Rehabilitation Counseling

- Department of Laboratory Sciences and Primary Care
  - Program in Clinical Laboratory Science
  - Program in Molecular Pathology
  - Program in Physician Assistant Studies

- Department of Rehabilitation Sciences
  - Program in Athletic Training
  - Program in Occupational Therapy
  - Program in Physical Therapy (M.P.T. & Sc.D.)
  - Program in Health Sciences

- Department of Speech, Language and Hearing Sciences
  - Program in Communication Sciences and Disorders
  - Program in Audiology
  - Program in Speech, Language and Hearing Sciences
  - Program in Speech-Language Pathology

SOAHS Academic Calendar

Summer 2007

Orientation PA, PT, OT, AT	May 29th
First Day of Class	**May 30th**
M.A.T. 2 Students Begin Class	May 30th
Last Day to Drop a Class and Receive a Refund	June 4th
M.P.T. Clinical Experience I: Begins	June 4th
Last day to withdraw from the University and Receive a partial refund	June 6th
M.O.T. 3 Students Fieldwork II: 1 Begins	July 2nd
M.A.T. 2 Students Last Day of Summer Semester	July 3rd
Holiday	July 4th
M.P.T. Clinical Experience I: Ends	July 27th
Final Day of Summer Semester	**August 17th**
August Graduates Diploma Date	August 18th
Grades due via Web for Faculty	August 20th
PA Clerkship 1 Begins	August 20th
M.O.T. 2 Students Fieldwork I: 1 Begins	August 20th
M.O.T. 2 Students Fieldwork I: 1 Ends	August 24th

Fall 2007

Orientation CLS, MP, SLHS, SLP, AuD, Ph.D.	August 27th
First Day of Class	**August 27th**
Holiday	September 3rd
Last Day to Drop a Class and Receive a Refund	September 12th
M.O.T. 3 Students Fieldwork II: 1 Ends	September 21st
Last day to withdraw from the University and Receive a partial refund	September 24th
PA Clerkship 1 Ends	September 25th
PA Grand Rounds	September 27th -28th
M.O.T. 3 Students Fieldwork II: 2 Begins	October 1st
PA Clerkship 2 Begins	October 1st
SOAHS Job Fair	October 23rd
CLS Preceptorship Begins	November 5th
PA Clerkship 2 Ends	November 6th
PA Grand Rounds	November 8th- 9th
PA Clerkship 3 Begins	November 12th
Holiday	November 21st - 23rd
Final Day of Semester	**December 14th**
CLS Preceptorship Ends	December 14th
PA Clerkship 3 Ends	December 17th
Grades due via Web for Faculty	December 18th
PA Grand Rounds	December 19th
M.O.T. 3 Students Fieldwork II: 2 Ends	December 21st
Diploma Date	December 22nd

Spring 2008

M.O.T. 2 Students Fieldwork I: 2 Begins	December 31st
CLS Preceptorship Begins	January 2nd
M.P.T. Clinical Experience III: Begins	January 7th
PA Clerkship 4 Begins	January 7th
First Day of Class	**January 9th**
M.O.T. 2 Students Fieldwork I: 2 Ends	January 11th
Holiday	January 21st
Last Day to Drop a Class and Receive a Refund	January 24th
Last day to withdraw from the University and Receive a partial refund	February 5th
PA Clerkship 4 Ends	February 12th
PA Grand Rounds	February 14th – 15th
PA Clerkship 5 Begins	February 18th
M.P.T. Clinical Experience III: Ends	February 29th
M.P.T. Clinical Experience IV: Begins	March 10th
M.P.T. Clinical Experience II: Begins	March 17th
Spring Break	March 17th – 21st
PA Clerkship 5 Ends	March 25th
PA Grand Rounds	March 27th - 28th
PA Clerkship 6 Begins	March 31st
CLS Preceptorship Ends	May 2nd
M.P.T. Clinical Experience IV: Ends	May 2nd
PA Clerkship 6 Ends	May 6th
PA Grand Rounds	May 8th – 9th
M.P.T. Clinical Experience II: Ends	May 9th
Final Day of Semester	**May 9th**
PA Clerkship 7 Begins	May 12th
M.P.T. Graduate Seminar	May 12th – 16th
Grades due via Web for Faculty	May 13th
Convocation	May 16th
Commencement	May 17th

***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 crucial shortages in the 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 the first class of 18 students in 1983, the School has grown steadily. With campuses in Amarillo, Lubbock, Midland, and Odessa, the School now serves almost 800 students enrolled in fourteen different degree programs at the doctoral, masters and baccalaureate degree levels. In preparing 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 them to excel in merging "high tech and high touch" throughout their professional careers. The faculty, students, and graduates 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 January 31, 2007

L. Frederick "Rick" Francis, Chair . . . . . El Paso
C. Robert "Bob" Black, ... Horseshoe Bay
Bob L. Stafford, M.D. . . . . . .Amarillo

Term Expires January 31, 2009

F. Scott Dueser . . . . . .Abilene
J. Frank Miller, III . . . . . Dallas
Windy M. Sitton . . . . . .Lubbock

Term Expires January 31, 2011

Larry K. Anders . . . . . Dallas
Mark Griffin. . . . . .Lubbock
Daniel "Dan" T. Serna . . . . . .Arlington
Ebtesam Attaya Islam . . . . . .Student Regent

Health Sciences Center

Kent Hance . . . . . .Chancellor
Bernhard T. Mittemeyer, M.D. . . . . . .Interim 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.. .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. . . . . . Director of 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 healthcare 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 TTUHSC School of Allied Health Sciences is dedicated to providing a high-quality, student-centered learning environment for graduate and undergraduate allied health education that seeks, through continuous quality improvement, to achieve the highest 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.

As part of a state-supported university system, we serve the people of Texas, with particular emphasis on developing regional solutions to meeting 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 education. We will progress toward this vision by:

- Becoming the institution of choice in Texas for high-quality students.
- Providing an environment that values, supports and rewards research and other scholarly activities.

- Contributing to the improvement of health status and quality of life of the communities we serve, by providing competent and compassionate clinical services that respond to the quality, access and cost-effectiveness needs of West Texans.
- Emphasizing Continuous Quality Improvement to enhance responsiveness to the evolving needs of our students, patients and the allied health professions we serve.

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 hadexisted 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 (CSM)

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

Accreditation

Texas Tech University Health Sciences Center is accredited by the Commission on Colleges of the Southern Association of Colleges and Schools to award bachelor's, master's, doctoral, and professional degrees. Questions about the accreditation status of Texas Tech University Health Sciences Center may be directed to the Commission on Colleges at 1866 Southern Lane, Decatur, Georgia 30033 (telephone 404-679-4500).

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

All undergraduate students enrolled at the Texas Tech University Health Sciences Center are required to meet the designated core curriculum as specified by the Texas Higher Education Coordinating Board. The core curriculum is in addition to prerequisite requirements designated by the programs.

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.

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 Science in Physical Therapy, or a Ph.D. in Communication Sciences and Disorders. 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 15
Traditional Admission ..... February 1
Clinical Laboratory Science ..... March 1
Communication Sciences and Disorders (Ph.D.)
Fall Semester ..... May 31
Molecular Pathology ..... March 1
Occupational Therapy
Early Admission ..... October 15
Traditional Admission ..... January 15
Physician Assistant ..... December 1
Physical Therapy (M.P.T.)
Early Admission ..... September 15
Traditional Admission ..... January 15
Speech-Language Pathology ..... February 1
Speech, Language and Hearing Sciences (Undergraduate) ..... March 1

DISTANCE PROGRAMS

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
Rehabilitation Counseling
Fall Semester ..... May 15
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); National Student Speech- Language Hearing Association (NSSLHA); 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 (within 10 years of matriculation date)
- Oral Trivalent Polio or Inactivated Polio Vaccine- IPV (at anytime in the past)
- Measles-Mumps-Rubella (since 1980)
- Hepatitis B
- 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 submitting changes at www.techsis.admin.ttu.edu/student/. 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

Undergraduate 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 award letters to 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

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 $126 per semester credit hour. Non-resident and foreign students will be charged tuition at a rate of $404 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	$1,890.00
Resident Graduate	$2,640.00
Non Resident Undergraduate	$6,060.00
Non Resident Graduate	$6,810.00
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	$65.00
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	$5.00

Total Tuition and Fees for Semester (estimate)

Resident Undergraduate	$2,473.50
Resident Graduate	$3,188.50
Non-Resident Undergraduate	$6,643.50
Non-Resident Graduate	$7,358.50

Summer Session

Full-time student enrolled in 7 hours

Tuition

Resident Undergraduate	$882.00
Resident Graduate	$1,232.00
Non-Resident Undergraduate	$2,828.00
Non-Resident Graduate	$3,178.00
SAH Anatomy Fee (AT, OT, PA & PT only)	$200.00
Student Services Fee	$77.00
Medical Services Fee	$35.00
Recreation Center Fee	$32.50
Identification Card Fee	$5.00
Information Technology Fee	$70.00
Record Processing Fee	$5.00
Synergistic Center Fee	$5.00

Total Tuition and Fees for Summer Semester (estimate)

Resident Undergraduate	$1,311.50
Resident Graduate	$1,661.50
Non-Resident Undergraduate	$3,257.50
Non-Resident Graduate	$3,607.50

**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 Services Management

Out of state students enrolled in a distant learning program pay a flat fee of $250 per credit hour, which is $750 per three hour course. Texas residents pay tuition of $126 per credit hour, which is $378 per three hour course, and appropriate fees.

Clinical Practice Management

Out of state students enrolled in a distant learning program pay a flat fee of $250 per credit hour, which is $750 per three hour course. Texas residents pay tuition of $176 per credit hour, which is $528 per three hour course, and appropriate fees.

Rehabilitation Counseling and Doctor of Science in Physical Therapy

Out of state students enrolled in a distant learning program pay a flat fee of $300 per credit hour, which is $900 per three hour course. Texas residents pay tuition of $176 per credit hour, which is $528 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.

Refund Formula

Fall and Spring 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 withdrawal:

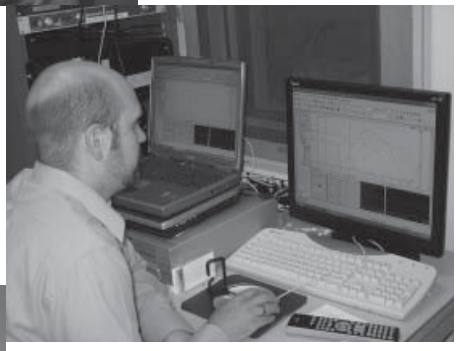
Prior to the first class day	100 percent
During the first, second or third class day	80 percent
During the fourth, fifth, or sixth class day	50 percent
Seventh day of class and thereafter	none

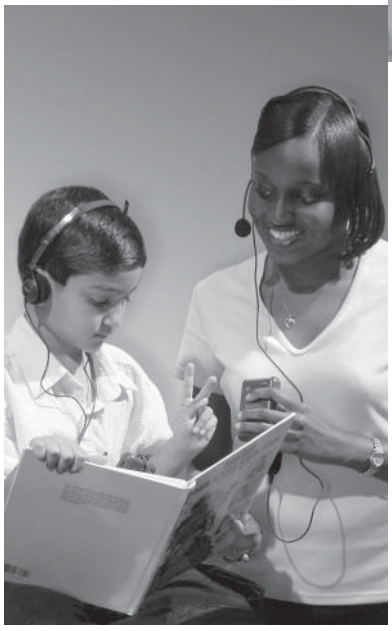
Federal Refund Formula

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

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 National Association of Future Doctors of Audiology. 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 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 3.0 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 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 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**
English	9 hours
Technical Writing is required	
History	6 hours
Political Science	6 hours
Math	6 hours
Statistics is required.	
Lab Science:	12 hours
At least one course in biological/life science and one in physical science are required. The following three courses are recommended: Biology of Animals (4 hours), Human Anatomy and Physiology (4 hours) and Physics (4 hours).	
Multicultural	3 hours
Behavioral/ Social Sciences	12 hours
At least one course addressing multicultural issues and one addressing human life span are required. Recommended courses: ANTH 1301, HDFS 2303, COMS 2350, PSY 1301.	
Humanities	3 hours
Visual & Performing Arts	3 hours
General Electives	6 hours
	Minimum Total - 66 hours

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

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 is February 1 prior to the summer/fall semester in which classes begin. Admissions decisions are made 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, and (8) an earned baccalaureate degree or its equivalent in the area of speech, language and hearing sciences from an accredited institution.

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. 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 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. Enrollment for a minimum of 6 credit hours in either AHSL 6000 (thesis option) or AHSL 5310 (comps option) is required.

Example Course Sequence

FIRST YEAR

Fall Semester Course		Credit Hours
AHSL 5100	Foundations	1
AHSL 5320	Research Design	3
AHSL 5463	Adult Language Assessment and 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	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 5010 Independent Study (v:v:0) A variable credit course used for individualized leveling plans created by the program director.

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.

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 National Association of Future Doctors of Audiology (NAFDA). 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) and (5) proof of appropriate immunizations against infectious diseases.

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.

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 or AHSL 7391	Clinical Observation or Clinical Practicum	3
		Total Hours = 14

Spring Semester Course		Credit Hours
AHSL 7450	Pediatric Audiology	4
AHSL 7444	Amplification	4
AHSL 7249	Auditory Neuroscience	2
AHSL 7393	Clinical Practicum	3
		Total Hours = 13

Summer Semester Course		Credit Hours
AHSL 7251	Counseling	2
AHSL 7375	Professional Issues in Audiology	3
AHSL 7394	Clinical Practicum	3
		Total Hours = 8

SECOND YEAR

Fall Semester Course		Credit Hours
AHSL 7345	Advanced Amplification	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 7370	Cochlear Implants	3
AHSL 7165	Balance Function Lab	1
AHSL 7365	Balance Function	3
AHSL 7330	Speech-Language Development & Disorders	3
AHSL 7396	Clinical Externship	3
AHSL 7166	Research Colloquium	1
		Total Hours = 14

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 7355	Advanced Concepts & Instrumentation	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 7243	Cortical Connections	2
AHSL 7399 or AHSL 7199	Clinical Practicum	1-3
AHSL 7000	Research Project	1
	Elective	3
		Total Hours =10-12

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

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 7020 AuD Independent Study (v:v:0) Independent study for advanced students in the fourth year of the AuD program. Three enrollments required before graduation. May not be taken before all courses and comprehensive examinations are successfully completed. May be repeated for credit.

AHSL 7030 Clinic Independent Study (v:v:0) Independent study for students in summer clinical placements in the first two years of the AuD program. This course can be repeated for credit.

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 7164 Auditory Electrophysiology Lab (1:0:1) Hands-on experiences with equipment utilized to allow students to practice and demonstrate the skills instructed in "Auditory Electrophysiology" lecture course.

AHSL 7165 Balance Function Lab (1:0:1) Hands-on experience with equipment utilized in assessment and management of balance function to allow students to practice and demonstrate the skills from "Balance Function" lecture course.

AHSL 7166 Research Colloquium (1:1:0) Seminar discussion on applied research techniques in the field of audiology. Emphasis is placed on analyzing research applied to patients across the lifespan.

AHSL 7243 Cortical Connections (2:2:0) Seminar course related to cortical processing speech and other acoustic signals and perceptual stimuli. Includes a discussion of cellular, intracellular, and cortical communication and connections involved in analysis and perception of sound, including speech.

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 7249 Auditory Neuroscience (2:2:0) This course will assist students in understanding anatomy/physiology and cell biology of the auditory system from

cochlea up to cortex, subsidized by introduction of nervous system and neural signaling and virtual lab exercise. Completion of this course should establish a solid base for understanding, applying, designing, and initiating different auditory test applications and research.

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 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 7345 Advanced Amplification (4:3:1) Advanced topics in clinical amplification including programmable instruments, digital processing and digital amplification, multi-microphone technology, and other noise reduction systems will be 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 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 7355 Advanced Concepts and Instrumentation (3:3:0) Provide training on using additional testing and techniques to expand the diagnostic and rehabilitative focus of audiologist. Instrumentation associated with the measurement of noise across multiple environments will be a central aspect of the course.

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 7370 Cochlear Implants (3:2:1) Electrophysiology of implantable devices. Also includes processor strategies, and speech/language learning in prelingually deafened listeners.

AHSL 7375 Professional Issues in Audiology (3:3:0) 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. Will present effects of noise exposure and hearing conservation programs.

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 7391-7399 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 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.

AHSL 7450 Pediatric Audiology (4:3:1) A study of behavioral and objective audiological evaluation, as well as the habilitation and rehabilitation, of infants and children.

AHSL 7444 Amplification (4:3:1) A comprehensive introduction of amplification devices, methods, and techniques. Consideration of special populations and their diverse needs will also be included.

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.

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 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 IN 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.

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

Having completed the didactic study on campus, students rotate through the departments of the clinical laboratories affiliated with the program. This student preceptorship will be directed by the clinical coordinator, education coordinators and supervised by teaching technologists. With careful supervision, students perform patient sample assays. Students also learn professionalism in patient care and interpersonal relationships with other healthcare practitioners. Clinical experiences are integral parts of the four-year curriculum and students pay regular tuition and fees for enrollment.

Admission to the 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.

Additional Requirements

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.

Pre-Professional Curriculum

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.

Below 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.*

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
F&N 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.*

Clinical Laboratory Science 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 3470	Hematology I	4
AHMT 3110	Professional Issues in CLS	1
		Total hours = 13

Spring Semester Course		Credit Hours
AHMT 3450	Clinical Chemistry II	4
AHMT 3460	Clinical Bacteriology II	4
AHMT 3455	Principles of Immunology	4
AHMT 4480	Hematology II	4
		Total hours = 16

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 4300	Applied Statistics & Research	3
AHMT 3310	Urinalysis/Body Fluids	3
AHMT 4185	Clinical Correlations	1
AHMT 3465	Immunohematology I	4
AHMT 4640	Clinical Preceptorship I	6
		Total hours = 17

** Classes for 13 weeks; Clinical preceptorship follows and continues through Spring*

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.

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.

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.

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.

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 summer 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)

  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	4 semester hours
Anatomy & Physiology	4 semester hours
College Algebra	3 semester hours
General Biology	8 semester hours
Organic Chemistry	8 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 5406	Molecular Biology of the Cell	4
AHMP 5301	Management of the Molecular Laboratory	3
		Total Hours = 15

Spring Semester Course		**Credit Hours**
AHMP 5100	Issues In Molecular Pathology I	1
AHMP 5408	Applied Molecular Techniques II	4
AHMP 5309	Human Molecular Genetics	3
AHMP 5741	Graduate Research	7
AHMP 5300	Applied Statistics & Research	3
		Total Hours = 18

Summer Semester Course		**Credit Hours**
AHMP 5742	Clinical Preceptorship	7
AHMP 5102	Graduate Seminar	1
		Total Hours = 8

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, regulatory issues, and principles of educational methodologies will also be discussed. Research projects in a current area of interest in molecular pathology will be assigned during this course.

AHMP 5102 Graduate Seminar (1:1:0) Prerequisite: AHMP 5101. 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, 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 (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. Concurrent enrollment in AHMP 5742.

AHMP 5742 Clinical Preceptorship Supervised advanced molecular clinical practicum in an affiliated laboratory with emphasis on patient testing, quality assurance, and case studies assessment. Concurrent enrollment in AHMP 5741.

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 on 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. All science prerequisites are recommended to be completed within seven (7) years of the application date. A finished degree, professional studies, healthcare certification, licensure or work experience are not required, but strongly encouraged. 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, and communication skills*

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

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. This course is taught in part by interactive teleconferencing from the TTUHSC campus in Lubbock and partly at the PA program main facility in Midland.

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. This is a distance-learning course taught in part by interactive teleconferencing from the TTUHSC campus in Lubbock and partly at the PA program main facility in Midland.

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. This is a distance-learning course taught by interactive teleconferencing from the TTUHSC campus in Lubbock.

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.

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.

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.

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. The lecture portion is a combination of distance-learning and onsite activity taught in part by interactive teleconferencing from the TTUHSC campus in Lubbock and partly at the PA program main facility in Midland.

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 prenatal 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).

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 (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.

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, enabling them to practice Athletic Training as skilled professionals. 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 (optional – **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*)

Students who would like to be considered for Early Admission into the M.A.T. program must have his/her online application completed and submitted, and all required application materials received by the TTUHSC Registrar's Office no later than October 15th. The early admissions process is identical to the traditional application process; however, chosen candidates will be notified of acceptance into the program in November. Student applications not accepted for early admissions will be considered during the regular admissions period. Accepted students would begin classes the following summer. 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 rank-order scoring system calculated from grade point average (cumulative and prerequisite courses), completion of all prerequisite courses, athletic training observation/experience (optional), essay, letters of recommendation and interviews (professional and academic) 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 below), and have completed or plan to complete all prerequisite courses 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 = 17

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 or a Texas licensed athletic trainer. It is recommended that applicants 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 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

Front and back signed copies of ECCC cards required for verification of Emergency Cardiac Care Certification. ECCC must include the following: Adult and Pediatric CPR, Airway Obstruction, 2nd Rescuer CPR, AED, Barrier Devices (e.g., pocket mask, bag valve mask). Acceptable ECCC 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.

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	Clinical Kinesiology	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

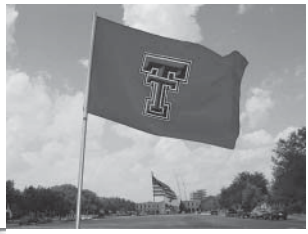
Summer Semester Course		Credit Hours
AHAT 5210	Orthopaedic Assessment I	2
AHAT 5120	Research Directed Study I	1
AHAT 5099	Independent Study (optional)	1-6
AHAT 5098	Practicum (optional)	1-6
		Total Hours = 3-9

Fall Semester Course		Credit Hours
AHAT 5401	Orthopaedic Assessment II	4
AHAT 5223	Special Populations & Concerns	2
AHAT 5227	Current Medical Diagnosis & Treatment I	2
AHAT 5225	Clinical Experience III	2
AHAT 5103	Athletic Training Review	1
		Total Hours = 11

Spring Semester Course		Credit Hours
AHAT 5302	Rehabilitation & 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.



AHAT 5098 Practicum in Athletic Training (v. 1-6) A structured remediation of clinical observation, hands-on clinical experience and skills, and/or on-field athletic training experience. Each practicum is designed to meet the individual needs of the student.

AHAT 5099 Independent Study in Athletic Training (v. 1-6) Designed to meet the professional student's particular needs. May include a structured review of previously presented classroom and/or laboratory experiences, literature review and discussion. Additionally, anatomy teaching assistants may enroll in a structured independent study.

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 (1:0:3) Progression on the student's research project including a working draft of a manuscript suitable for publication in the sports healthcare literature. Course requirements include a literature review and demonstration of satisfactory progress as determined by the student's project advisor. The job application process, cover letter and resume writing, and interviewing skills are also discussed.

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 (1:0:3) Completion of the student's research project including submission of a manuscript suitable for publication in the sports healthcare literature. Requirements include completion of the manuscript and acceptance by the student's project advisor.

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. 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. 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 (2:1:3) 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. 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 I (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. The objective is to obtain hands-on experiences in a variety of athletic training settings including intercollegiate, high school, and clinical/industrial.

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 Clinical Kinesiology (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 1 (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 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 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/activity limitations to restore a quality of life and participation in society by designing and implementing evidence based, patient specific therapeutic interventions in patients with acute and chronic injury, disease, and physical disability. Physical therapists 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 state-administered 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 (TTUHSC) Master of Physical Therapy (M.P.T.) Program has been accredited by the Commission on Accreditation in Physical Therapy (CAPTE) since its inception and is currently accredited through the year 2008. The M.P.T. Program is scheduled to go through the Re-accreditation process in 2008.

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.

Essential Functions

A student admitted into the M.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 M.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 from the M.P.T. program director or

students may find a list of the essential functions for the M.P.T. program and DRS in the DRS Student Handbook. Applicants should be familiar with the essential functions document. (http://www.ttuhsc.edu/sah/current/handbooks.aspx)

Admission to the Program

The Application Process

Applications are considered twice a year for acceptance into the professional program. 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. Classes for each new cohort of students begin in late May. Individual applications are reviewed and interviews are scheduled for competitive applicants once all materials have been received, therefore, 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 who has observed the applicant during any related volunteer or paid work, and one from a previous or present instructor and/or counselor, previous or present employers.

Applicants who meet the above listed requirements and are deemed suitable 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, upper level coursework, completion of a bachelor's degree, volunteer/work experience in physical therapy, recommendation letters, student essay, and other factors.

Applicants must have completed all prerequisites prior to matriculation into the M.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 changes are not typically granted. Students who are unable or unwilling to accept assignment to a specific campus should not accept admission to the Physical Therapy 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.

Prerequisite Courses

A minimum of 90 semester hours of credit, including the courses listed below, is required prior to enrollment and may be completed in any accredited college or university. Successful completion of upper level science coursework (junior/ senior level at a four year college or university) and a bachelor's degree will strengthen an application and should be a consideration when students enroll in elective credits.

Required Course	**Credit Hours**
Psychology/Sociology	6
English or Technical Writing	6
Math	3
Statistics	3
General Biology (for majors, lab required)	8
Anatomy and Physiology (one upper level*, lab required)	6-8
General Chemistry (for majors, lab required)	8
General Physics (for majors, lab required)	8
**Electives	40-42
	Total Hours = 90

** Upper division courses are Junior or Senior level course noted by a 3000 or 4000 level course number)*

*** Recommended courses: Additional English, technical writing, speech, developmental and general psychology, exercise physiology, kinesiology, and biomechanics and core coursework required for a bachelor's degree.*

TEXAS TECH UNIVERSITY EQUIVALENT COURSES

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

** Must take at least one upper division (Junior or Senior level course noted by 3000 or 4000 level course number)*

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 1306	General Physics I	3
PHYS 1103	(Lab)	1
PHYS 1307	General Physics II	3
PHYS 1104	(Lab)	1
		Required Hours = 8

Social Sciences		Credit Hours
PSY 1300	General Psychology	3
SOC 1301	Introduction to Sociology	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

In addition to the prerequisites listed above, at least 40-42 hours of elective coursework must be earned by the applicant. Although the selection of these elective hours is the student's option, recommended electives include technical writing, speech and developmental and general psychology, as well as exercise physiology, kinesiology and/or biomechanics. As stated previously, successful completion of upper level science coursework (junior/senior level at a four year college or university), and a bachelor's degree, in addition to the basic prerequisites, will strengthen an application and should be a consideration when students enroll in elective credits.

GPA Requirements

Competitive* cumulative and prerequisite science grade point averages (GPA's) are required for admission. Successful completion of a baccalaureate degree is encouraged and will strengthen an application. (*"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. This experience may be acquired in several ways, including volunteer work, paid employment, or observations in clinical settings. Applicants must have completed at least 50 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.

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 professional phase of physical therapy education begins in late May each year. 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.

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 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 or Master's 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 Master's degree are required to complete 48 semester hours from the following curriculum, where as students with a Bachelor's degree are required to complete 70 hours. Requirements within each course section for Master's versus 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.

Research and Education Tracks

CLINICAL COURSEWORK

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

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

Master's 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

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

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

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

Master's graduates attend 1, BSPT graduates attend all

Courses		Credit Hours
AHPT 7303	Instructional Technology in Allied Health	3
AHPT 7304	Educational Evaluation in Allied Health	3

CLINICAL PROJECT

Master's 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

Master's graduates attend 1, BSPT graduates attend all

Courses		Credit Hours
AHPT 7302	Non-Parametric Statistics for Clinical Research	3
AHPT 7306	Parametric Statistics for Clinical Research	3

CLINICAL PROJECT

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. 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 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 7302 Non-Parametric Statistics for Clinical Research (3:3:0) Evaluates methods in non-parametric statistical analysis and qualitative design. The course explores various non-parametric tools and include one, two, and k-sample designs. The course provides an emphasis on clinical research using either single-case or small clinical samples.

AHPT 7303 Instructional Technology in Allied Health (3:3:0) Utilizes technology in educational instruction and evaluation. Topics include Computer-assisted instructional design, as well as Web-based educational models and design. Students will be introduced to various technology-based applications and will be asked to use the applications during learning and evaluation experiences.

AHPT 7304 Educational Evaluation in Allied Health (3:3:0) 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 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 7306 Parametric Statistics for Clinical Research (3:3:0) Introduces various tools used in parametric statistical analysis. Includes correlation, regression, t-test, analysis of variance, and selected multivariate designs. Emphasis will be placed on research findings that evaluate specific clinical populations.

Dual Master's Degree: Master of Athletic Training/Master of Physical Therapy

The School of Allied Health Sciences offers a Dual Master's Degree in Athletic Training and Physical Therapy. This 5 year process offers two years of education in the M.A.T. program and three years of education in the M.P.T. program. Shared M.A.T./M.P.T. courses will count as constructive credit toward both programs and students may choose the order in which the programs are completed. Upon completion, students will be eligible for certification/licensure in both professions. If you are interested in receiving additional information, please contact the M.A.T. program director Dr. LesLee Taylor (leslee.taylor@ttuhsc.edu) or the M.P.T. program director Dr. Kerry Gilbert (kerry.gilbert@ttuhsc.edu) for more information.

Admission to the Program

Individuals interested in the two-degree option must be accepted independently into both the M.A.T. and M.P.T. programs. Applicants must meet the prerequisites for both the M.A.T. and M.P.T. programs. For a list of the prerequisites, please refer to the M.A.T. and M.P.T. sections of this catalog. Individuals accepted into the two-degree option must remain in good academic standing to be allowed to continue in both degree programs. Admission into the two-degree option is highly competitive, and admission into one program does not guarantee admission into the other.

Program in Occupational Therapy

The OT Profession

Occupational therapy is a challenging profession that calls on the therapist to use clinical reasoning and creative abilities to meet individual clients' unique needs. Occupational therapists work collaboratively with individuals whose life patterns have been changed due to cognitive or developmental problems, injury or illness, social or emotional deficits, or the aging process. Our focus is on helping individuals to achieve a healthy and satisfying balance between work, self-care, play/leisure, and rest. The uniqueness of occupational therapy is the use of meaningful occupations as therapeutic tools.

The goal of occupational therapy is to enable individuals to engage in their chosen occupations. The occupational therapist assesses the individual's strengths and weaknesses, determines how these affect ability to function in daily life, and then develops individually designed prevention, maintenance, or rehabilitation programs. The therapist enables individuals to develop or maintain the physical, cognitive, and emotional abilities needed to meet the demands of work, home, and community environments, and may also modify tasks and environments to facilitate optimal performance. Occupational therapists are involved in evaluation of individual abilities, collaboration with parents, families and significant others, treatment planning and implementation, administration, research, education, consultation, and service. They also offer services focusing on prevention of impairment and disability.

Skills that are unique to occupational therapists include activity analysis, the use of everyday occupations as therapy, the assessment, design and construction of adaptive devices and equipment, a focus on individual functional skills and abilities, and adaptation of tasks and environments to enhance performance. Services are provided to individuals of all ages, families, and communities.

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 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. AOTA's phone number is (301) 652-2682 and their web site is www.aota.org.

Students begin the program in late May each year. Students will be involved in Level I Fieldwork experiences during the second and third 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 basic sciences, theory, clinical reasoning, assessment and intervention, professional practice, and research. The curriculum covers the life span from birth to older adults, 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 occurs 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 occurs 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 or Biomechanics	3 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 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.

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 science 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 have completed at least 40 clock 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) previous or present instructors and/or counselors, or (c) previous or present employers. Additionally, one letter should be completed by an occupational therapist.

Immunizations and CPR: Verification of required immunizations and CPR 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 by the early admission deadline (October 15th) does not guarantee an interview in the fall semester. Only a select number of competitive applicants will be invited to interview in the fall. All other competitive applicants will be scheduled to interview in the spring semester.

Transfer Process

Applicants wanting to transfer credit hours obtained from an occupational therapy program will be required to submit syllabi for all courses the applicant is seeking transfer credits. Each course will be reviewed on an individual basis to determine if the course is considered a course equivalent for a professional course within the TTUHSC M.O.T. Program's curriculum. Courses that are recognized as a course equivalent will be awarded transfer credit. For those courses that are 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 are built around a science foundation, theoretical foundations, clinical reasoning, assessment and intervention, professional practice, and research. 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

First Summer Semester

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

Total Hours = 8 hours

First Fall Semester

AHOT 5214	Common Conditions in Occupational Therapy: Part 1
AHOT 5220	Case and Population Based Clinical Reasoning
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

First Spring Semester

AHOT 5211	Occupational Therapy Process: Hand and Upper Extremity
AHOT 5215	Common Conditions in Occupational Therapy: Part 2
AHOT 5311	Overview and Analysis of Occupational Therapy Assessment
AHOT 5314	Health and Community Settings
AHOT 5207	Psychosocial Intervention in Occupational Therapy
AHOT 5217	Planning Occupational Therapy Research

Total Hours = 14 hours

SECOND YEAR

Second Summer Session

AHOT 5105	Clinical Reasoning for Fieldwork
AHOT 5403	Developmental Theory and Practice in Occupational Therapy
AHOT 5213	Psychosocial Group Process
AHOT 5112	Research Seminar

Total Hours = 8 hours

Second Fall Session

AHOT 5106	Fieldwork I: 1
AHOT 5212	Occupational Therapy Practice: Assistive Technology
AHOT 5404	Developmental Foundations and Assessment of Occupational Performance
AHOT 5405	Occupational Therapy Practice in Adult Rehabilitation
AHOT 5113	Research Seminar II

Total Hours = 12 hours

Second Spring Session

AHOT 5200	Fieldwork I: 2 (Scheduled for December/January)
AHOT 5237	Advanced Clinical Reasoning for Fieldwork
AHOT 5315	Organization and Management in Occupational Therapy
AHOT 5406	Occupational Therapy Practice with Older Adults
AHOT 5407	Advanced Clinical Reasoning: Children & Adolescents

Total Hours = 15 hours

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 = 91 hours

Course Descriptions

AHOT 5071 Fieldwork II: Specialization (3-6:0:3-6) Prerequisites: AHOT 5631, 5632 Optional additional full-time, supervised clinical experience in an area/facility of the student's choice.

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 5105 Clinical Reasoning for Fieldwork (1:1:0) This course will prepare students for their first fieldwork rotation. Professional behavior, personal success strategies, and professional success strategies will be utilized in this course. Clinical reasoning will focus on procedural, interactive, conditional, and pragmatic reasoning.

AHOT 5106 Fieldwork I: 1 Prerequisites: AHOT 5105, AHOT 5310, AHOT 5313, AHOT 5403, AHOT 5411 One week (40 hours), supervised, opportunity to observe clinical practice and to participate, within limits, in the occupational therapy process with individuals and groups. Students will develop clinical reasoning skills, complete treatment notes and a concept map on clientele seen on Fieldwork I: 1.

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 and prepares them for learning theoretical foundations and clinical reasoning.

AHOT 5112 Research Seminar (1:1:0) Prerequisites: AHOT 5316, AHOT 5217 During this course students will gather and analyze data and/or write research reports while working on a research team with classmates, OT clinicians and

faculty members and be introduced to qualitative research methods. Each of the four types of clinical reasoning may be employed depending on the topic of the student's collaborative project. This is a writing intensive course.

AHOT 5113 Research Seminar II (1:0:3) Prerequisite: AHOT 5112 Prepares the student for participation in beginning-level research. Students continue to gather and analyze data and/or write research reports while working on a research team with classmates, OT clinicians and faculty members. Each of the four types of clinical reasoning may be employed depending on the topic of the collaborative project. This is a writing intensive course.

AHOT 5200 Fieldwork I: 2 Prerequisites: AHOT 5105, AHOT 5106, AHOT 5405 Two weeks (80 hours), supervised, opportunity to observe clinical practice and to participate, within limits, in the occupational therapy process with individuals and groups. Students will develop clinical reasoning skills, complete treatment notes and a concept map on clientele seen on Fieldwork I: 1.

AHOT 5209 Applied Kinesiology in Occupational Therapy (2:1:3) Co-requisite: AHOT 5500 An analysis of normal human movement, including explanations of how movements are produced at specific joints and their influence on occupation. This course builds a scientific basis for assessment, intervention, and procedural clinical reasoning.

AHOT 5207 Psychosocial Interventions in Occupational Therapy (2:2:0) Prerequisites: AHOT 5111, AHOT 5310, AHOT 5214 Examines the psychosocial dimensions of human performance, therapeutic strategies for individuals with secondary psychosocial issues, and occupational therapy intervention for persons with primary psychiatric issues.

AHOT 5211 Occupational Therapy Process: Hand and Upper Extremity (2:1:3) Prerequisites: AHOT 5500, AHOT 5209, AHOT 5313 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. This course prepares students in the areas of assessment and intervention and clinical reasoning.

AHOT 5212 Occupational Therapy Practice: Assistive Technology (2:1:3) Prerequisites: AHOT 5111, AHOT 5313 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. This course prepares the student in the areas of assessment, intervention and clinical reasoning.

AHOT 5213 Psychosocial Group Process (1:1:0) Prerequisites: AHOT 5111, 5310, 5212, 5207. This course develops the students' procedural, interactive and conditional reasoning through application of the evaluation, intervention (e.g.

individual and group) and outcomes process utilized in a variety of psychosocial practice settings. Instruction and laboratory experiences incorporate active learning as students apply and practice therapeutic skills.

AHOT 5214 Common Conditions in Occupational Therapy: Part 1 (2:2:0) Prerequisites: AHOT 5500, AHOT 5111 First course in a series of two courses that provides an overview of the etiology, epidemiology, signs and symptoms, associated conditions/complications, prognosis, and medical management of disorders and injuries that are relevant to occupational therapy practice. This course focuses on conditions in three broad areas: children/pediatrics, mental health, and orthopedics. Develops student's scientific and procedural reasoning by improving one's knowledge of conditions. Examines areas of occupation, occupational performance, and occupational roles potentially affected as a result of the condition or complications of the condition (conditional reasoning).

AHOT 5215 Common Conditions in Occupational Therapy: Part 2 (2:2:0) Prerequisites: AHOT 5214 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 (conditional reasoning). Develops students' scientific and procedural reasoning by improving one's knowledge of conditions.

AHOT 5217 Planning Occupational Therapy Research (2:2:0) Prerequisite: AHOT 5316 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. Skills in procedural and conditional reasoning are reinforced through the process of proposal development. This course is writing intensive.

AHOT 5220 Case and Population Based 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.

AHOT 5237 Advanced Clinical Reasoning for Fieldwork (2:2:0) Prerequisites: AHOT 5105 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, preparing for the national certification exam, and planning a continuing education workshop. Clinical reasoning will focus on procedural, interactive, conditional, ethical and pragmatic reasoning.

AHOT 5309 Applying Neuroanatomy in Occupational Therapy (3:3:0) Prerequisite: AHOT 5500 A study of the structure and function of the human nervous system. Discussion of neurological diagnoses and theories for treatment. Application of those concepts to occupational therapy is made with concept and case maps, which fosters clinical reasoning.

AHOT 5310 Theory and Foundations of Occupational Therapy (3:3:0) Prerequisite: AHOT 5111 Study of the philosophical, theoretical, and professional concepts that are foundational to occupational therapy as well as the study of occupation-based theories, frame of references, and treatment approaches. Develops students' theoretical reasoning.

AHOT 5311 Overview and Analysis of Occupational Therapy Assessment (3:2:3) Prerequisites: AHOT 5310, AHOT 5313 Overview, analysis, and application of psychometrics, basic statistics, and characteristics of assessment instruments. Develops students' procedural and interactive reasoning skills through the administration, interpretation, and documentation of a variety of assessment tools utilized in occupational therapy practice with clients across the lifespan.

AHOT 5313 Introduction to Evaluation and Intervention in Occupational Therapy (3:2:3) Prerequisite: AHOT 5111 – Introduction to key OT practice skills including basic evaluation techniques, clinical documentation, clinical safety, physical handling techniques, interventions, and splinting. Prepares students in the area of assessment, intervention, and clinical reasoning.

AHOT 5314 Health and Community Settings (3:3:0) Prerequisites: AHOT 5310 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. Through use of case mapping and service learning students explore professional skills needed for community practice.

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.

AHOT 5316 Research Process in Occupational Therapy (3:3:0) Prerequisite: AHOT 5311 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, and evaluation of and use of the professional literature relevant to occupational therapy practice. Other content includes introduction to qualitative and quantitative analysis

methods (inferential statistics), as well as the development of professional writing skills. Skills in procedural and conditional reasoning are developed through literature search and by writing an evidence-based practice paper. This course is writing intensive.

AHOT 5403 Developmental Theory and Practice in Occupational Therapy (4:3:3) Prerequisite: AHOT 5310 Conceptual [and treatment] theories and practice frameworks which guide pediatric practice are linked with the treatment techniques and strategies that they guide. The occupational therapy process in pediatric settings is discussed. Skills in procedural reasoning are built through hands-on lab activities and written assignments requiring the application of theories to practice. This course is writing intensive.

AHOT 5404 Developmental Foundations and Assessment of Occupational Performance (4:3:3) Prerequisites: AHOT 5311, AHOT 5403 Focus is on the skill progressions in typical and atypical development and how those sequences are used in pediatric occupational therapy assessment and treatment. Lab experiences involve the observation and assessment of children. Students apply all four types of clinical reasoning (conditional, interactive, narrative and procedural).

AHOT 5405 Occupational Therapy Practice in Adult Rehabilitation (4:3:3) Prerequisites: AHOT 5214, AHOT 5215, AHOT 5310, AHOT 5311, AHOT 5313 This course builds on student knowledge in prerequisite courses, applying specific OT techniques to diagnostic areas and individual conditions found in adults. Students will also learn how the various adult practice settings influence clinical reasoning skills. 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 use pragmatic reasoning skills required for fieldwork.

AHOT 5406 Occupational Therapy Practice with Older Adults (4:3:3) Prerequisites: AHOT 5310, AHOT 5311, AHOT 5313 Overview of the physical, psychosocial, and cognitive issues commonly seen in older adults and the impact of these conditions on occupational performance. Includes aging theory, assessment and intervention techniques. Case and concept mapping are used to integrate clinical reasoning.

AHOT 5407 Advanced Clinical Reasoning: Children and Adolescents (4:3:3) Prerequisite: AHOT 5404 This course assists students in synthesizing course content from across the curriculum to integrate their clinical reasoning and treatment skills in pediatric occupational therapy practice. Students practice all four types of clinical reasoning (conditional, interactive, narrative and procedural) through treatment discussions, case mapping and supervised treatment sessions.

AHOT 5500 Human Anatomy (5:3:12) 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.

AHOT 5931 Fieldwork II: 1 (6:0:6) 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.

AHOT 5932 Fieldwork II: 2 (6:0:6) 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.

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 Science 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's 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.*

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 clinic manager.

The MSCPM is designed to provide practicing clinicians with skills that will allow them to excel as a clinical supervisor. The increasing complexity of theoretical and applied knowledge required for practice and the growing demand for innovative problem solvers has necessitated the development of a cost-effective graduate program geared toward the practicing clinician.

The degree is entirely distance-based, designed specifically to increase the availability to as many working practitioners 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 clinicians and their specific needs in today's changing environment, utilizing a mechanism that is student friendly and effective.

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 Physical or Occupational Therapy, Speech Language Pathology, Nursing, Athletic Training, Physician Assistant, or any other health related field. 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 requirements will be considered for admission into the program: A Bachelor's or Master's Professional degree in Physical or Occupational Therapy, Speech Language Pathology, Nursing, Athletic Training, Physician Assistant, or any other bachelor's degree with related healthcare experience.

- All official college transcripts
- Acceptable grade point average
- Two supporting letters of reference

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. Two reference letters are required: one from professional colleagues and one from a previous or present employer. 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	Current Medical Issues in Healthcare
AHCP 5306	Healthcare Delivery System
AHCP 5307	Practice Management I
AHCP 5308	Practice Management II
AHCP 5309	Business Statistics
AHCP 5310	Coding and Healthcare Law
AHCP 5311	Healthcare Finance and Resource Management
AHCP 5312	Strategic Planning

Electives*

AHCP 5301	Foundations of Rehab
AHCP 5315	Professional Development and Healthcare Ethics
AHCP 5316	Independent Study
AHCP 5317	Public Policy

**Students must complete any two of the elective courses.*

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 Current Medical Issues in Healthcare (3:3:0) This course presents current medical issues that influence managers in today's dynamic healthcare environment. The course will include discussion of emerging technologies, innovative medical procedures, pharmacology issues, and current epidemiological issues. Focus is on implications on managerial decisions, organizational response, and reimbursement issues.

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 Business Statistics (3:3:0) This course provides statistical knowledge needed to function in day to day business operations. This course will take existing data from the students work environment and chart, graph, manipulate, and extract relevant statistical information and trends from it. Topics include statistical concepts, methods, and practical application.

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 covers principles of financial management, analysis, reporting, and allocation of resources. Issues addressed are interpretation of multiple financial statements, utilization of finance-based equations and ratios, and implementation of financial analysis in planning. Additionally, focus is placed on management and allocation of resources including materials and inventory management.

AHCP 5312 Strategic Planning (3:3:0) This course addresses the dimensions of market assessment and associated business entry policy. Topics include product line development business plan development, planning for success, and measuring and presenting outcomes. Entrepreneurial skills, marketing, project development, SWOT analysis, and market growth assessment are significant topics addressed

AHCP 5301 Foundations of Rehab (3:3:0) This course explores the history and underlying evolution of rehabilitation practice. Issues associated with the evolving position that rehabilitative providers face are addressed in this course. This course consists of current practice patterns, paradigms, and theoretical treatment models. Additionally, the driving forces that make up our clinical models are discussed and evaluated for effectiveness.

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.

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, 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.

The last few decades have seen an increasing recognition of the need and right of persons with disabilities to access meaningful work and employment. Federal legislation, changes in the labor market, and an increasing awareness of the skills and abilities possessed by persons with disabilities has resulted in excellent employment opportunities. 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.

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 long 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 onsite 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, 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 students place of employment (when appropriate) or in designated rehabilitation settings.

Second, all students will be required to undertake a 100 hour practicum and 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. 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 online application must be completed by May 15 for Fall semester and October 1 for Spring semester.

Students will submit a completed application form, transcripts, a letter from the applicant outlining their rationale for applying to the program, 3 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 deadline. 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 5304	Vocational and Career Development	3
AHRC 5305	Case Management	3
AHRC 5306	Psycho-Social Aspects of Disability	3
AHRC 5308	Research Methodologies & Interpretation of Research Findings	3
AHRC 5309	Group Counseling Theory and Practice	3
AHRC 5321	Vocational Assessment	3
AHRC 5322	Employment Development & Placement	3
		Total Hours = 30

PRACTICAL EXPERIENCE

Course		Credit Hours
AHRC 5416	Clinical Internship I	4
AHRC 5517	Clinical Internship II	5
AHRC 5611	Practicum	6
		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 5304 Vocational and Career Development (3:3:0) This is a course on career guidance, career development, and career theory. The course will review the major theories and approaches to career development and exploration, with particular emphasis on the importance of meaningful employment and a career focus.

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 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 5322 Employment Development and Placement (3:3:0) The roles and techniques involved in the development of employment options and placement of persons with disabilities in employment are explored in-depth. Topic areas to be explored include job analysis, job development, work site modification, ergonomics, role of assistive technology, job placement, employer contacts, supported employment, post placement support, job coaching, and building natural supports. Attention will also be paid to the impact of legislative initiatives (e.g. the Americans with Disabilities Act) on employment development and placement.

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

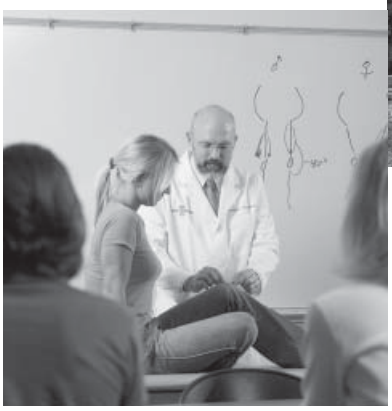
disability, and forensic rehabilitation. Examination of resources unique to the field, and ethical and legal considerations of private sector rehabilitation.

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 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 II (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.

FACULTY DIRECTORY



AOYAMA, Katsura, Assistant Professor of Speech, Language and Hearing Sciences, 2002; 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.

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.

BROOKS, David J., Assistant Professor of Rehabilitation Counseling, 2001; B.A., Northeastern Oklahoma State, 1969; M.S., Oklahoma State University, 1975.

BRUEILLY, Kevin, Assistant Professor of Physical Therapy, 2004; B.A. Cedarville University, 1984; M.P.T. University of St. Augustine, 1996.

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CORWIN, Melinda D., Assistant Professor of Speech, Language and Hearing Sciences, 1994; 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.

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.

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GEDDIE, Matthew, Assistant Professor of Occupational Therapy, 2003; B.S., Texas Tech University Health Sciences Center, 1994; M.B.A., Wayland Baptist University, 2002.

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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.

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