Texas Tech University
Health Sciences Center

School of
Allied Health Sciences
2003-2004 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. The catalog is also published online at www.ttuhsc.edu/sah. It will contain the most current School information.

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.

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

Texas Tech University Health Sciences Center
School of Allied Health Sciences
3601 4th Street, STOP 6294
Lubbock, TX 79430
806-743-3220, fax 806-743-3249
www.ttuhsc.edu/pages/sah

About the cover:
Jessica Melvin served as the 2002-2003 Masked Rider for Texas Tech University. She was the first Health Sciences Center student to do so. Ms. Melvin will graduate from the School of Allied Health Sciences with her Master of Physical Therapy degree in May 2004.

Photo by:
Artie Limmer at Photo Services
Texas Tech University

FREQUENTLY ASKED QUESTIONS

What degrees does the School of Allied Health Sciences offer?

The School of Allied Health Sciences offers the following degrees:

- Bachelor of Science (B.S.) – Clinical Laboratory Science, Clinical Support Services Management and 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 Science (M.S.) - Speech-Language Pathology
- Master of Science (M.S)- Molecular Pathology
- Master of Science (M.S.)- Rehabilitation Sciences
- Master of Rehabilitation Counseling (M.R.C.)
- Doctor of Audiology (Au.D.)
- Doctor of Science in Physical Therapy (Sc.D.)

How can I apply for admission to the School of Allied Health Sciences?

- Applications may be accessed via the Texas Tech University Health Sciences Center, School of Allied Health Sciences website at www.ttuhsc.edu/pages/sah

How can I contact the School of Allied Health Sciences?

- 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 806-743-3249
  www.ttuhsc.edu/pages/sah

How is the School of Allied Health Sciences organized?

- Department of Speech, Language and Hearing Sciences
  - Program in Audiology
  - Program in Speech-Language Pathology
  - Program in Speech, Language and Hearing Sciences (Undergraduate)
- Department of Laboratory Science 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 Clinical Support Services Management
  - Program in Occupational Therapy
  - Program in Physical Therapy
  - Program in Rehabilitation Counseling
  - Program in Rehabilitation Sciences

CONTENTS

ACADEMIC CALENDAR

Summer 2003

May 12	MOT 2 Fieldwork I Begins
May 19	MPT2 Clinical Experience I Begins
May 23	MOT 2 Fieldwork I Ends
May 28	AT, MP, OT, PA & PT Orientation
May 29	First Day of Classes
June 27	MPT2 Clinical Experience I Ends
July 1-3	CLS Final Exams
July 4	Independence Day Holiday
July 7	MAT2 Classes Begin
	MPT2 Classes Begin
August 6	Last Day of Classes
August 7-8	Final Exams
August 11	MOT 2 Fieldwork I Begins
August 22	MOT 2 Fieldwork I Ends

Fall 2003

September 1	Labor Day Holiday
September 2	CD, CLS Orientation
	AT, MP, OT, PA & PT Classes Begin
September 29	OT Fieldwork II:1 Begins
October 29-31	CLS Final Exams-Seniors
November 10	CLS Clinical Preceptorships Begin-Seniors
November 26-28	Thanksgiving Holiday (Students)
December 10	Last Day of Classes
December 12-17	Final Exams
December 19	MOT Fieldwork II:1 Ends
	CLS Clinical Preceptorships End - Seniors

Spring 2004

January 5	CLS Clinical Preceptorships Resume
	MPT2 & 3 Clinical Experience (II & III) Begin
	MOT 3 Fieldwork II:2 Begins
January 14	Classes Begin
January 19	MLK Holiday
February 13	MPT2 Clinical Experience II Ends
February 16	MPT2 Classes Begin
February 27	MPT3 Clinical Experience III Ends
March 8	MPT3 Clinical Experience IV Begins
	MSMP Clinical Preceptorship Begins
March 15-19	Spring Break
March 26	MOT 3 Fieldwork II:2 Ends

May 3	Last Day of Classes
May 5	CLS Last Day of Preceptorships-Seniors
May 6-12	Final Exams
May 7	MSMP Clinical Preceptorship Ends
May 17 – 20	MSMP Graduate Seminar Week
May 17 – 21	MPT3 Clinical Seminar Week
May 18-20	CLS Senior Week
May 22	Graduation

A Message From PAUL P. BROOKE, JR., Ph.D., FACHE
Dean Of The School of Allied Health Sciences,
Texas Tech University Health Sciences Center

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 meeting the health care needs of the people of West Texas. The School of Allied Health Sciences has since become a 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 now serves a student population of more than 600 enrolled in fourteen different degree programs at the doctoral, masters and baccalaureate degree levels. In preparing the allied health professional who will meet the evolving health care 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 our learning opportunities that exceed nationally recognized standards of technical competence, while simultaneously developing the professional insight and service-oriented compassion that will enable our graduates 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
Carin Barth
C. Robert Black
E.R. Brooks
J. Robert Brown
John W. Jones
Dr. Nancy E. Jones
David R. Lopez
Brian C. Newby
J. Michael Weiss

HEALTH SCIENCES CENTER
David R. Smith, M.D.
Chancellor
M. Roy Wilson, M.D.
President
Elmo Cavin, Jr., M.B.A.
Vice President for Fiscal Affairs
Glen J. Provost, J.D.
Vice President for Health Policy and Planning

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 Science and Primary Care
Rajinder Koul, Ph.D., CCC-SLP
Assistant Dean for Research; Chair, Department of Speech, Language and Hearing Sciences
Steven F. Sawyer, Ph.D., MPT
Chair, Department of Rehabilitation Sciences
Michael Hooten, M.H.A.
Regional Dean, Amarillo
Robin Satterwhite, M.B.A.
Regional Dean, Odessa
Brenda Bobo
Director of Administration
Carey Woodward, M.Ed.
Director of Admissions and Student Affairs

GENERAL INFORMATION

MISSION

The mission of the Texas Tech University Health Sciences Center is to provide excellence in the education of health care professionals to serve the West Texas region, the state of Texas, and the nation through innovations in technology, research and patient care.

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

- Develop professionals today to meet the health challenges of tomorrow
- Demonstrate excellence in serving targeted healthcare needs
- Pursue new knowledge in the life sciences and apply research to improve health outcomes
- Optimize organizational effectiveness and efficiencies

GOALS OF THE SCHOOL OF ALLIED HEALTH SCIENCES

1. To provide quality education for a maximum number of people in the region served by the Texas Tech University Health Sciences Center.
2. To foster cooperation between regional campuses and the School of Allied Health Sciences so students have the opportunity to complete their education in their home communities.
3. To provide innovative and flexible programs, recognizing and serving the needs of students of varying backgrounds.
4. To be sensitive to and responsive to the educational and health-care needs of under-served populations.
5. To provide continuing education opportunities for allied health practitioners.
6. To provide society with allied health graduates who are knowledgeable in current practices and who will use innovative service policies.
7. To provide educated allied health professionals for the delivery of quality health care to the TTUHSC service area.
8. To facilitate health-care services by providing faculty who maintain their skills as health-care practitioners.
9. To further research in allied health and related disciplines for the benefit of the health professions and society.
10. To instill in our graduates the highest professional ethics and a true commitment to professionalism in their work.

OUR PURPOSE

Our purpose within higher education in Texas is to provide certificate-level studies in emergency medical services, and baccalaureate degrees in clinical laboratory science, clinical support services management, communication disorders, and emergency medical systems management. The School of Allied Health Sciences offers graduate degrees in athletic training, molecular pathology, occupational therapy, physician assistant studies, physical therapy, rehabilitation sciences, speech-language pathology and Rehabilitation Counseling. The School of Allied Health Sciences also offers doctoral degrees in audiology and physical therapy. These health-care disciplines prepare professionals who will enter our society to improve the quality of human life.

Each of the areas of study is an excellent career choice that will secure the successful graduate a high degree of personal satisfaction and economic future. Our school seeks people with a genuine desire to improve the well being of all people. Our class sizes are limited and admission is by application only.

OUR HISTORY

In the 1960s, over 100 health-related professions were classified as Allied Health Professions by the federal government. Medical specialization and new technologies called for the support of related disciplines such as physical therapy, occupational therapy, medical technology, respiratory therapy, and many others. Throughout the 70's and 80's, colleges and universities across the United States raced to establish educational programs to meet the critical shortages in these new health professions. Because the shortage of these caregivers was even more critical in the rural areas of West Texas, the 67th Texas Legislature approved funding to establish the School of Allied Health Sciences at TTUHSC in 1981. The School of Allied Health Sciences was authorized to begin baccalaureate programs in physical therapy, occupational therapy, and medical technology. In 1983, the School accepted its first class of 18 students.

Despite the challenges of growth presented to the small faculty and staff, the School of Allied Health Sciences received full accreditation for its programs in 1985. By 1986, the application rate for class slots was doubling on a yearly basis. Because of competition for admission and critical shortages in the workplace, allied health careers became some of the most sought after in higher education. In 1991, the Emergency Medical Services Educational program (EMS) was added to the programs in the School of Allied Health Sciences. This program has been nationally recognized as one of the most successful programs of its type. The EMS program offered Emergency Medical Technician certification at three levels: Basic, Intermediate, and Paramedic.

Responding to the public demand for larger classes, the administration of Texas Tech University Health Sciences Center asked the School of Allied Health Sciences to expand the Physical and Occupational Therapy programs to two of the regional campuses--Odessa and Amarillo. In 1993, the School of Allied Health Sciences placed its first classes in those regional sites, which effectively doubled the size of these programs, as well as meeting the mission of providing higher education opportunities to regional sites.

Texas Tech University is the home of the oldest Speech-Language Pathology and Audiology program in Texas. The program had by 1993 outgrown its classrooms and clinics. At that time this distinguished graduate program, which properly belonged in a medical education environment, was added to the School of Allied Health Sciences. Additionally in 1993, the School received permission from the Texas Higher Education Coordinating Board to replace the existing bachelor's degree in Physical Therapy with a master's degree in Physical Therapy.

In little more than a decade, the School's enrollment had grown from the original 18 students to approximately 500 students. In 1997, the School of Allied Health Sciences was virtually assured of becoming the largest health profession school at Texas Tech when the Texas Legislature authorized the establishment of a bachelor's degree program to educate physician assistants. The program was the first of its kind in West Texas and continues to draw large numbers of applicants. In keeping with the mission of providing higher education at regional sites, the Physician Assistant program is located in Midland.

Recent additions to the School of Allied Health Sciences include approval by the coordinating board to change the bachelor's degree programs in both occupational therapy and physician assistant studies to master's degree programs, changing the master's degree program in audiology to a doctoral degree program, and developing a bachelor's degree program in emergency medical services management. The Bachelor of Science in Emergency Medical Services Management was the first of its kind in Texas. Other additions to the School include the approval of the Master of Athletic Training and a Master of Rehabilitation Counseling.

The newest programs to be approved by the coordinating board are a Bachelor of Science in Clinical Support Services Management, a Master of Science in Rehabilitation Sciences, a Master of

Science in Molecular Pathology and a Doctor of Science in Physical Therapy. The bachelor's degree in EMS Management has recently merged with the bachelor's degree in Clinical Support Services Management. With the addition and changes of its programs, the School of Allied Health Sciences continues to grow and diversify.

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

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, an application must be made directly to the School of Allied Health Sciences Admissions Office. 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 Support 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 Rehabilitation Sciences, a Master of Rehabilitation Counseling; a Doctor of Audiology or Doctor of Science in Physical Therapy. After graduation, a certification or licensure examination may be required.

Deadlines for application to the individual programs are:

Athletic Training -- Early admission – October 15[1], Regular admission – February 1
Audiology -- March 1
Clinical Laboratory Science -- March 1
Molecular Pathology -- March 1
Occupational Therapy -- Early admission – October 15, Regular admission – February 1
Physician Assistant -- December 15
Physical Therapy (MPT) -- Early admission – October 15
Regular admission – February 1
Speech-Language Pathology -- March 1
Speech, Language and Hearing Sciences (Undergraduate) -- March 1

Rehabilitation Counseling -- May 1 (summer semester), August 1 (fall semester) and December 1 (spring semester)
Clinical Support Services Management-- May 1 (summer semester), August 1 (fall semester) and December 1 (spring semester)
Rehabilitation Sciences-- May 1 (summer semester), August 1 (fall semester) and December 1 (spring semester)
Physical Therapy (Sc.D.)-- May 1 (summer semester), August 1 (fall semester) and December 1 (spring semester)

WHAT MUST BE DONE TO QUALIFY 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 department. Information or applications to any Allied Health program may be accessed via the Texas Tech University Health Sciences Center, School of Allied Health Sciences website at www.ttuhsc.edu/pages/sah.

WHAT IS EXPECTED OF THE ALLIED HEALTH 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 students are required to observe departmental, school, and institutional regulations and requirements. Allied Health students are expected to maintain a professional attitude toward the patients to whom they will provide health care, and toward the colleagues with whom they learn and work. Class attendance in Allied Health programs is mandatory. Only the specific course instructor can excuse absences. Other policies concerning departmental expectations of Allied Health 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 of Allied Health Sciences sponsors a chapter of *Alpha Eta*, the national honorary society in Allied Health, 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)*; *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, contact the Office of Student Services.

For registration of a new organization please contact the TTUHSC Student Services Office.

STUDENT LIABILITY
An essential part of allied health education is the clinical experience. Students in all three departments of the School of Allied Health Sciences are placed in clinical settings outside the institution. Because allied health 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 HEALTH SERVICE
Students who pay the Medical Services Fee and are enrolled in the School of Allied Health Sciences are eligible to receive health care 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 required 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 (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)
Varicella Titer

It is the student's responsibility to obtain and maintain proof of all required immunizations. The cost of all 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 Office of Admissions and Student Affairs.

TASP REQUIREMENTS
The TASP (Texas Academic Skills Program) is an instructional program with a testing component designed to ensure that all students attending public colleges and universities in Texas have the reading, mathematics, and writing skills necessary to perform effectively in college-level coursework. Remedial activities will be required for those who do not pass the TASP test. Students admitted to the School of Allied Health Sciences must provide proof of passing scores on the TASP test as a condition of admission. Students who completed at least three hours of college coursework before September 1, 1989, or those who have earned a bachelor's degree, are exempt.

ALCOHOL/DRUG 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.

TOBACCO-FREE ENVIORONMENT
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 or Board of Regents Policy 04.06, as appropriate.

For more information regarding the Tobacco-Free Environment or the Tobacco Intervention Program please visit the TTUHSC website at www.ttuhsc.edu.

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 the Registrar at TTUHSC 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 Registrar 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 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.

GENERAL ADMISSIONS POLICIES AND REQUIREMENTS

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 department 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 Office of Admissions and Student Affairs. All college level, nonvocational 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 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 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 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 appropriate department chair at least 30 days prior to taking the examination. The department 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

1. 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.
2. Undergraduate students whose native language is not English must present a score of at least 550 on the Test of English as a Foreign Language (TOEFL) 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.
3. Documentation of successful completion of the TASP (Texas Academic Skills Program) is required.

ADMISSIONS CHECK LIST

1. Be certain you will be able to meet all admission requirements by the class starting date.
2. Application materials may be accessed via the Texas Tech University Health Sciences Center, School of Allied Health Sciences website at www.ttuhsc.edu/pages/sah.
3. 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.
4. 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.
5. Have documentation of successful completion of the TASP sent to the Texas Tech University Health Sciences Center, Office of the Registrar, if it is not included with transcripts.
6. 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 departmental 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 3B310
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 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 $92 per semester credit hour. Non-resident and foreign students will be charged tuition at a rate of $359 per semester credit hour. Students enrolled in the graduate masters programs in Speech-Language Pathology and Molecular Pathology will be charged an additional $23 per semester credit hour. Students enrolled in the graduate doctoral programs in Audiology and Physical Therapy will be charged an additional $46 per semester credit hours.

To be granted status as a resident of Texas for educational purposes, proper documentation must be on file in the Office of Admissions. 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 Nationals 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 for 15 hours

Tuition @ 15 semester hours	$1,380.00
(Non Resident Tuition)	$5,385.00
Student Services Fee	$117.00
Placement Guarantee Fee	$50.00(All 1st year students, non-refundable)
Student Malpractice Insurance Fee (Fall Semester)	$14.50 ($61 for PA students)
Microscope Usage Fee	$50.00(CLS Juniors and Seniors annually)
Medical Services Fee	$62.50
Recreation Center Fee	$59.50
Graduation Fee	$35.00 ($50 for graduate programs)
Identification Card Fee	$5.50
Informational Technology Fee	$150.00
Student Athletic Fee	$50.00
Record Processing Fee	$5.00
Resident Tuition and Fees for semester	**$1,979.00**
Non-Resident Tuition and Fees for semester	**$5,984.00**

Summer Sessions – Full-time student enrolled for 7 hours

Tuition @ 7 semester hours	$644.00
(Non-Resident Tuition)	$2,513.00
SAH Anatomy Fee	$200.00 (AT, OT, PA & PT only)
Student Services Fee	$68.25
Medical Services Fee	$31.25
Recreation Center Fee	$29.75
Identification Card Fee	$5.50
Information Technology Fee	$70.00
Record Processing Fee	$5.00
Tuition and Fee for Summer Session	**$1,053.75**
Non-Resident Tuition and Fees	**$2,922.75**

*This fee table may not represent all costs incurred to students. Many courses within each program have course fees that will be applied to tuition as necessary.

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.

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

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 use 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, followed by at least two additional years of intensive clinical study, are required. Graduates of the professional programs must also complete a Clinical Fellowship and pass national and state 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.

PROGRAM 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 educates approximately 80 undergraduate students and 75 graduate students. The department offers study in three degree programs: Bachelor of Science in Speech, Language and Hearing Sciences, Master of Science in Speech-Language Pathology and a Doctor of Audiology degree. Students may specialize in either speech-language pathology or audiology at the graduate level. The professional programs are accredited by the Council on Professional Services Accreditation, while 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. Locally and nationally 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 area. 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

Admission into the undergraduate program begins in March of each year for the following fall class. Class enrollment is limited. Admission requirements include (1) filing of a formal application, (2) a cumulative GPA of 2.5 on a 4.0 scale, (3) a grade of "C" or better in all prerequisite courses, (4) demonstration of superior written communication skills, and (5) proof of appropriate immunizations against infectious diseases. Provisional admission may be offered to applicants with a GPA of less than 2.5. 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.

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.

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)	
English	9 hours (*Technical Writing is required.)*
History	6 hours
Political Science	6 hours
Math	6 hours *(Trigonometry, or higher level, and Statistics are required.)*
Behavioral/ Social Sciences	15 hours
At least one course addressing multicultural issues and one addressing human life span are required. Courses may be from any of the following departments: anthropology, communications, family studies, health, human development, philosophy, psychology, or sociology.	
Humanities	3 hours
Visual & Performing Arts	3 hours
General Electives	6 hours
Minimum Total	**66 hours**

SPEECH, LANGUAGE AND HEARING SCIENCES CURRICULUM: UNDERGRADUATE

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

EXAMPLE UNDERGRADUATE PROGRAM

FIRST YEAR

Fall Semester	**Course**	**Credit Hours**
AHSL 3219	Supervised Observation Lab: AUD	2
AHSL 3220	Supervised Observation Lab: SLP	2
AHSL 3327	Phonetics	3
AHSL 3522	Anatomy & Physiology	5
		Total hours = 12

Spring Semester	**Course**	**Credit Hours**
AHSL 3221	Clinical Methods in CD	2
AHSL 3421	Speech and Hearing Science	4
AHSL 3323	Language Development	3
AHSL 3442	Clinical Audiology	4
		Total hours = 13

SECOND YEAR

Fall Semester	**Course**	**Credit Hours**
AHSL 3324	Language Disorders	3
AHSL 3325	Fluency Disorders	3
AHSL 4380/90	Clinical Practicum: SLP/Audiology	3
AHSL 4344	Multicultural Issues	3
AHSL 3426	Articulation & Phonological Disorders	4
		Total hours = 16

Spring Semester	**Course**	**Credit Hours**
AHSL 4426	Neural Bases of Speech & Language Disorders	4
AHSL 4380/90	Clinical Practicum: SLP/Audiology	3
AHSL 4410	Basic Sign Language for the Health Professions	4
AHSL 4427	Assessment Procedures in Speech-Language Pathology	4
		Total hours = 15

COURSE DESCRIPTIONS: UNDERGRADUATE CURRICULUM

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 3320 Introduction to Communication Disorders (3:3:0) An overview of communication disorders which can affect children and adults. The impact of these disorders on an individual's psychological, social, emotional, cultural, and educational status will be discussed.

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 in children. Topics include the nature and etiologies of language disorders, with an overview of the principles of assessment and 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 3327 Phonetics (3:3:0) An introduction to production and classification of speech sounds; principles and theories of phonetics; emphasis on development of clinical transcription skills.

AHSL 3421 Speech and Hearing Science (3:3:0) An introduction to the physics of sound, speech acoustics, speech perception, and psychoacoustics.

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 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 3522 Anatomy & Physiology (5:5:0) A study of the anatomical and physiological aspects of speech and hearing in both normal and clinical populations.

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 4380 Clinical Practicum: SLP (3) A supervised clinical experience in case management. May be repeated for credit.

AHSL 4390 Clinical Practicum: Audiology (3) A supervised clinical experience in case management. May be repeated for credit.

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 health care 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 PROGRAMS IN SPEECH, LANGUAGE AND HEARING SCIENCES

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 March 1 prior to the summer/fall semester in which classes begin. Class enrollment is limited each year. Admission requires (1) filing of a formal application for graduate admission, (2) a cumulative GPA of 3.0 on a 4.0 scale, (3) a GPA of 3.0 on a 4.0 scale in audiology and speech pathology courses, (4) demonstration of superior oral and written communication skills, (5) completion of a personal interview with the Admissions Committee, (6) above-average scores on the verbal, quantitative, and analytical subtests of the 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 may apply to the graduate program, but must take one year (two semesters) of leveling course work. Students may take the leveling courses and then apply to the graduate program, or apply and be accepted to the graduate program and complete the leveling courses before beginning graduate studies. 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.

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 5327	Clinical Neuroscience	3
AHSL 5424	Pediatric Language Assessment & Intervention	4
AHSL 5380	Graduate Clinical Practicum: SLP	3
		Total Hours = 14

Spring Semester	Course	Credit Hours
AHSL 5100	Foundations	1
AHSL 5325	Childhood Speech Disorders	3
AHSL 5328	Seminar in Voice Disorders	3
AHSL 5380	Graduate Clinical Practicum: SLP/AuD	3
or		
AHSL 5385	Internship in Speech Pathology	3
AHSL 5463	Adult Language Assessment & Intervention	4
AHSL 6000 (opt.)	Master's Thesis	3
		Total Hours =14-17

Summer Semester	Course	Credit Hours
AHSL 5339	Research in Speech and Language Science	3
AHSL 5380	Graduate Clinical Practicum: SLP/Aud.	3
or		
AHSL 5385	Internship in Speech Pathology (possible 6 weeks out-of-city placement)	3
AHSL 6000 (opt.)	Master's Thesis	3
		Total Hours = 6-9

SECOND YEAR

Fall Semester	Course	Credit Hours
AHSL 5143	Aural Rehabilitation Lab	1
AHSL 5343	Aural Rehabilitation	3
AHSL 5466	Augmentative & Alternative Communication	4
AHSL 5380	Graduate Clinical Practicum: SLP/Aud.	3
or		
AHSL 5385	Internship in Speech Pathology	3
AHSL 5310	Special Topics in Speech-Language Pathology	3
or		
AHSL 6000	Master's Thesis	3
		Total Hours = 14

Spring Semester	Course	Credit Hours
AHSL 5310	Special Topics in Speech-Language Pathology	3
AHSL 5362	Motor Speech Disorders	3
AHSL 5380/90	Graduate Clinical Practicum: SLP/Aud.	3
or		
AHSL 5385	Internship in Speech Pathology	3
AHSL 6000 (opt.)	Master's Thesis	3
		Total Hours = 9-12

COURSE DESCRIPTIONS: PROFESSIONAL CURRICULUM

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

AHSL 5010 Independent Study. A variable credit course used for individualized leveling plans created by the program director.

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 5323 Language Development (3:3:0) A study of contemporary literature on first language acquisition. Includes examination of biological and cognitive substrates of language acquisition, relevant research methodologies, and atypical language development, with implications for language intervention.

AHSL 5325 Childhood Speech Disorders (3:3:0) Current approaches to assessment and management of pediatric speech disorders and developmental phonological disorders in special populations.

AHSL 5327 Clinical Neuroscience (3:3:0) Problem-solving, case study approach to the relationships between pathophysiology of the nervous system and clinical symptomatology as it relates to disorders of speech, language, cognition and swallowing.

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 5339 Research in Speech and Language Science (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 5343 Aural Rehabilitation (3:3:0) 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 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 addressed, diagnosed, and managed.

AHSL 5380 Graduate Clinical Practicum: SLP (3:3:0) Supervised clinical practice in speech and/or language pathology.

AHSL 5385 Internship in Speech Pathology (3:3:0) Intensive supervised case management within an on-going clinic on or off campus. May be repeated for credit.

AHSL 5390 Graduate Clinical Practicum: Audiology (3:3:0) Supervised clinical practice in audiology.

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 March 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) filing of a formal application, (2) a cumulative 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, analytical and 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.

FIRST YEAR

Fall Semester	**Course**	**Credit Hours**
AHSL 7442	Psychoacoustics	4
AHSL 7446	Advanced Clinical Audiology	4
AHSL 7449	Auditory Neuroscience	4
		Total Hours = 12

Spring Semester	**Course**	**Credit Hours**
AHSL 5320	Research Design	3
AHSL 7321	Clinical Observation and Methods	3
AHSL 7450	Pediatric Audiology	3
AHSL 7544	Clinical Amplification	5
		Total Hours = 14

Summer Semester	Course	Credit Hours
AHSL 7364	Electrophysiology I	4
AHSL 7390	Clinical Practicum	3
		Total Hours = 7

SECOND YEAR

Fall Semester	Course	Credit Hours
AHSL 7348	Educational Audiology	3
AHSL 7365	Electrophysiology II	4
AHSL 7390	Clinical Practicum	3
AHSL 7445	Advanced Clinical Amplification	4
		Total Hours = 14

Spring Semester	Course	Credit Hours
AHSL 7322	Management Principles of Healthcare Clinics	3
AHSL 7351	Counseling in Audiology	3
AHSL 7352	Medical Aspects of Audiology	3
AHSL 7390	Clinical Practicum	3
		Total Hours = 12

Summer Semester	Course	Credit Hours
AHSL 7370	Cochlear Implants	3
AHSL 7376	Clinical Research Symposium	3
AHSL 7385	Clinical Externship	3
		Total Hours = 9

THIRD YEAR

Fall Semester	Course	Credit Hours
AHSL 7347	Aural Rehabilitation	3
AHSL 7373	Neuroaudiology	3
AHSL 7375	Professional Issues in Audiology	3
AHSL 7385	Clinical Externship	3
		Total Hours = 12

Spring Semester	Course	Credit Hours
AHSL 7355	Hearing Conservation and Instrumentation	3
AHSL 7379	Audiology Grand Rounds	3
AHSL 7385	Clinical Externship	6
		Total Hours = 12

Summer Semester	Course	Credit Hours
AHSL 7000	Doctoral Research Seminar	3
AHSL 7385	Clinical Externship	6
		Total Hours = 9

FOURTH YEAR

Fall Semester	Course	Credit Hours
AHSL 7385	Clinical Externship	9
AHSL 8000	Doctoral Research Seminar	3
		Total Hours = 12

Spring Semester	Course	Credit Hours
AHSL 7000	Doctoral Research Seminar	3
AHSL 7385	Clinical Externship	9
		Total Hours = 12

COURSE DESCRIPTIONS: PROFESSIONAL CURRICULUM

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

AHSL 7322 Management Principles of Health Clinics (3:3:0) Introduction to the management aspect of modern healthcare clinics. Topics include management of personnel, reimbursement issued in managed healthcare, patient/resource scheduling and responsibilities, interfacing with other healthcare professionals, data collection, and analysis and reporting for fiscal management of clinical activities. Organizing, managing, and expanding an audiologic practice. Determining costs and fees, accounts management, quality assurance, third-party reimbursement, contracting for services, demographic trends, business and professional ethics, professional liability, marketing, certification and licensure.

AHSL 7347 Aural Rehabilitation (3:3:0) 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 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 7351 Counseling in Audiology (3:3:0) 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 7352 Medical Aspects of 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 Hearing Conservation and Instrumentation (3:3:1) This course will present the physiologic and behavioral effects of noise exposure, hearing conservation programs and clinical services to children and adults from diverse populations. Instrumentation associated with the measurement of noise across multiple environments will be a central aspect of the course.

AHSL 7364 Electrophysiology I: Auditory System (3:3:1) First course of a two-part sequence covering theoretical knowledge and applied skills of normal and pathological auditory and vestibular systems. Includes laboratory.

AHSL 7365 Electrophysiology II: Vestibular System (3:3:1) The second of a two-part sequence covering advanced measures of auditory and vestibular systems. Includes laboratory.

AHSL 7370 Cochlear Implants (3:3:0) Electrophysiology of implantable devices. Also includes processor strategies, and speech/language learning in prelingually deafened listeners.

AHSL 7373 Neuroaudiology (3:3:0) Focus on neuroanatomical and neurophsyiological principles underlying stimulus processing by the auditory system. Assessment and treatment strategies for neuroaudiological disorders, including adaptations of procedures for culturally diverse populations will be discussed.

AHSL 7375 Professional Issues in Audiology (3:3:0) Overview of the social, political, and economic climate in hearing health care delivery. Basic and advanced strategies for practice management and development. Interprofessional relationships and responsibilities. Supervision of other professionals.

AHSL 7376 Research Symposium (3:3:0) Seminar discussion on applied research techniques in the field of audiology. Emphasis is placed on analyzing research applied to patients across the lifespan.

AHSL 7379 Audiology Grand Rounds (3:3:0) Clinical analysis, diagnosis, and treatment of different cases. The focus of this course is to integrate clinical decision-making, diagnostic reasoning and treatment justification abilities to a variety of clinical presentations.

AHSL 7385 Externship in Audiology (3:3:0) Intensive supervised case management within an on-going clinic on or off the campus. May be repeated for credit.

AHSL 7390 Clinical Practicum (3:3:0) Supervised clinical practicum in audiology. May be repeated for credit.

AHSL 7442 Psychoacoustics (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 7445 Advanced Clinical 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 7446 Advanced Clinical 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 7449 Anatomy & Physiology of the Auditory System (4:3:1) Intensive and advanced study of recent developments in auditory-vestibular anatomy and physiology. Includes gross aspects of the temporal bone and cytoartchetectonics of the labyrinth. Laboratory exercises reinforce didactic material.

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. Also includes information on the fundamental basis of oto-acoustic emissions and its usage for testing infants and children.

AHSL 7544 Clinical Amplification (5:0:0) A comprehensive introduction of amplification devices, methods, and techniques. Consideration of special populations and their diverse needs will also be included.

DEPARTMENT OF LABORATORY SCIENCE 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.

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 health care 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.

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 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 health care practitioners. Clinical experiences are integral parts of the four-year curriculum and students pay regular tuition and fees for enrollment.

CLS EARLY ADMISSION

The Clinical Laboratory Science program has an early admission program. Students wishing to apply for this freshman program must have obtained acceptable admission scores on college entrance exams and make application to Texas Tech University and the School of Allied Health

Sciences. Students accepted into the early admission program in the School of Allied Health Sciences are not automatically accepted into Texas Tech University, nor are students admitted to Texas Tech University automatically accepted into the School of Allied Health Sciences. Enrollment is concurrent. Students who are accepted into both Texas Tech University and TTUHSC are subject to all rules and regulations of both institutions.

Applicants should have a cumulative GPA of 3.0 overall in the required high school curriculum. Applicants should complete the written application form and supply official high school transcripts to the School of Allied Health Sciences Office of Admissions. Applications for admission may be submitted at any time before completing 15 semester hours of university or college credit.

Early-admit students must maintain regular contact with the program as specified by the director. All prerequisite coursework must be completed with an overall GPA of 2.5 on a 4.0 scale. Grades of C or better are necessary in each required preprofessional course. Early-admit students who do not meet these criteria are released from the early admissions candidacy and must reapply for the professional curriculum through the professional program.

Early Admission Requirements

1. Graduation from an accredited high school or GED
2. High school credits in biology, chemistry, and advanced math, with a grade of A or B.
3. Acceptable scores on the SAT or ACT examinations.
4. Completed application package.

PROFESSIONAL ADMISSION

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 part of the admissions review.

ADDITIONAL REQUIREMENTS

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.

CLINICAL LABORATORY SCIENCE CURRICULUM

The courses listed below are the Texas Tech equivalent of the prerequisite courses required to apply for admission into the professional phase of the Clinical Laboratory Science program. Substitution of courses may be authorized by the Program Director.

PREPROFESSIONAL CURRICULUM: STANDARD OPTION

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

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.

PREPROFESSIONAL CURRICULUM: PRE-MED OPTION

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 1351	Calculus I	3
or		
MATH 2300	Statistics	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
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 humanities and one visual performing arts. Please see advisor.

PREPROFESSIONAL CURRICULUM: PRE-PHYSICIAN ASSISTANT OPTION

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	Anatomy & Physiology I	4
*Elective			3
			Total hours = 17

Spring Semester		Course	Credit Hours
ZOOL	2404	Anatomy & Physiology II	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

THRID YEAR

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

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

PROFESSIONAL CURRICULUM: STANDARD, PRE-MED & PRE-PHYSICAN ASSISTANT OPTIONS

FIRST YEAR

Fall Semester		Course	Credit Hours
AHMT	3110	Professional Issues in CLS	1
AHMT	3400	Clinical Chemistry I	4
AHMT	3405	Clinical Bacteriology I	4
AHMT	3455	Principles of Immunology	4
AHMT	3470	Hematology I	4
			Total hours = 17

Spring Semester	Course	Credit Hours
AHMT 3450	Clinical Chemistry II	4
AHMT 3460	Clinical Bacteriology II	4
AHMT 3465	Immunohematology I	4
AHMT 4480	Hematology II	4
		Total hours = 16

SECOND YEAR

Summer Semester	Course	Credit Hours
AHMT 4185	Clinical Correlations	1
AHMT 4305	Molecular Diagnostics	3
AHMT 4320	Laboratory Management	3
		Total hours = 7

Fall Semester *	Course	Credit Hours
AHMT 3310	Urinalysis/Body Fluids	3
AHMT 4300	Applied Statistics & Research	3
AHMT 4455	Parasitology/Mycology/Virology	4
AHMT 4640	Clinical Preceptorship I	6
* Classes for 13 weeks; Clinical preceptorship follow and continue through Spring		
		Total hours = 16

Spring Semester	Course	Credit Hours
AHMT 4105	Senior Seminar	1
AHMT 4741	Clinical Preceptorship II	7
AHMT 4842	Clinical Preceptorship III	8
		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.

COURSE DESCRIPTIONS: PROFESSIONAL CURRICULUM

AHMT 3015 Special Problems in Clinical Laboratory Science (1-3) A study of a specific problem in clinical laboratory science under faculty direction.

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 and methodologies 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) The qualitative and quantitative chemical analysis of blood and other body fluids. Correlation of test results to health and disease states. Prerequisite: AHMT 3400

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 on clinical correlations and case studies.

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 4185 Senior Seminar (1:1:0) Review of current topics 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, Mycology and Virology (4:3:6) Prerequisite: AHMT 3405, 3460. Study of medically significant protozoan and helminthic parasites and their vectors, pathogenic fungi, and pathogenic viruses. 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 health care 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 health care 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 twenty-seven credit hours of didactic (classroom and laboratory) experience and fifteen credit hours of clinical experience (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 PROFESSIONAL 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 may be submitted at any time; however, applications must be received by March 1st to be considered for summer 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.

PREREQUISITE 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

PROFESSIONAL CURRICULUM

Summer Semester	**Course**	**Credit Hours**
AHMP 5100	Issues in Molecular Pathology I	1
AHMP 5301	Survey of Laboratory Services	3
AHMP 5406	Molecular Biology of the Cell	4
AHMP 5405	Applied Molecular Techniques I	4
		Total Hours = 12

Fall Semester	**Course**	**Credit Hours**
AHMP 5101	Issues in Molecular Pathology II	1
AHMP 5300	Applied Statistics & Research	3
AHMP 5309	Diagnostic Molecular Pathology	3
AHMP 5407	Pathology	4
AHMP 5408	Applied Molecular Techniques II	4
		Total Hours = 15

Spring Semester	**Course**	**Credit Hours**
AHMP 5741	Clinical Preceptorship I	7
AHMP 5842	Clinical Preceptorship II	8
		Total Hours = 15

COURSE DESCRIPTIONS: PROFESSIONAL CURRICULUM

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 5101 Issues in Molecular Pathology II (1:1:0) Prerequisite: AHMP 5100. Basic business and management principles relative to laboratory management and administration will be presented.

AHMP 5102 Issues in Molecular Pathology III (1:1:0) Prerequisite: AHMP 5101. Graduate seminar. Presentation of graduate research projects.

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 Survey of Laboratory Services (3:3:1) Survey of the clinical laboratory that includes common laboratory assays (Hematology, Clinical Chemistry, Microbiology, Transfusion Services, and Body Fluids) and addresses the purpose, function, and utilization of laboratory services. Specimen procurement, patient education and consent, and quality assurance are discussed.

AHMP 5309 Diagnostic Molecular Pathology (3:3:0) Presentation of human genetic disease with a focus on causative genetic alterations in neoplastic, immunologic, endocrine, viral, and infectious diseases. Prenatal diagnosis and carrier screening will be discussed. Independent case study presentation required.

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 and RNA technologies in clinical settings in addition to their use in identity testing. Independent work on research project.

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 fundamentals 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.

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 Clinical Preceptorship I Supervised basic molecular clinical practicum in an affiliated laboratory with emphasis on patient testing and quality assurance. Concurrent enrollment in AHMP 5842.

AHMP 5842 Clinical Preceptorship II 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

Physician Assistants are skilled health care 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.

PAs are physician-dependent health care 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 health care 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 belongs to the Department of Laboratory Science 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.

PREPROFESSIONAL PREREQUISITES
A minimum 2.75 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. Provisional admission may be offered to applicants with a GPA of less than 2.75. Such applications will be reviewed on an individual basis. A finished degree, professional studies, health care certification, licensure or work experience are not required. AP and CLEP credit will not be accepted for any science or social 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. Course work may be in progress during the spring semester prior to entering the program. Course load for each applicant will be reviewed on an individual basis.

PREPROFESSIONAL CURRICULUM
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
Anatomy and Physiology	8
General Chemistry	8
Social and Behavioral Sciences	9
Nutrition	3
Statistics	3
Electives	14

(Computer literacy, medical terminology, and communication skills recommended)

PROFESSIONAL CURRICULUM

First Summer Semester	Course	Credit Hours
AHPA 5101	Introduction to PA Profession	1
AHPA 5202	Introduction to Pharmacology	2
AHPA 5301	Clinical Laboratory	3
AHPA 5406	Physiology	4
AHPA 5501	Anatomy	5
		Total Hours = 15

First Fall Semester	Course	Credit hours
AHPA 5302	Physical Examination I	3
AHPA 5305	Clinical Methods & Approach	3
AHPA 5310	Medical Interviewing	3
AHPA 5405	Pharmacotherapeutics	4
AHPA 5407	Pathology	4
		Total Hours = 17

First Spring Semester	Course	Credit Hours
AHPA 5303	Physical Examination II	3
AHPA 5304	Medical Psychology	3
AHPA 5308	Neuroscience	3
AHPA 5403	Clinical Medicine I	4
AHPA 5404	Clinical Medicine II	4
		Total Hours = 17

Second Summer Semester	Course	Credit Hours
AHPA 6201	Medical Ethics & Jurisprudence	2
AHPA 6301	Preventive Medicine & Community Health	3
AHPA 6303	Introduction to Clerkship	3
AHPA 6402	Clinical Medicine III	4
AHPA 6403	Health Care Management	4
		Total Hours = 16

Second Fall, Second Spring, Third Summer Semsters - Clinical Study (6 week rotations)

	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

Third Summer Semester	Course	Credit Hours
AHPA 6404	Master Project Track	4
		Total Hours = 4

COURSE DESCRIPTIONS: PROFESSIONAL CURRICULUM

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 health care professional. The course will discuss the history of the profession, the evolution of the physician – PA team, maintenance of professional credentials, practice issues and future trends.

AHPA 5202 Introduction to Pharmacology (2:2:0) This is a lecture series that 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. This course will review fundamental pharmacology calculations, measurements and symbols

AHPA 5301 Clinical Laboratory (3:3:0) This lecture series describes the significance and interpretation of laboratory studies routinely referred to in the clinical setting. Concepts of microbiology and infectious disease will be examined. This is a distance-learning course taught by interactive teleconferencing from the TTUHSC campus in Lubbock.

AHPA 5302 Physical Examination I (3:2:2) This is a lecture-laboratory series in which the adult physical examination is demonstrated and practiced. Students will learn and apply the techniques of a comprehensive physical examination with the proper use of diagnostic instruments. The laboratory experience utilizes simulated patients.

AHPA 5303 Physical Examination II (3:2:2) This is a lecture-laboratory series that is an extension of AHPA 5302 – *Physical Examination I* The technique of the physical examination of the pediatric patient, geriatric patient and trauma patient is practiced. Integrating the medical history (learned in AHPA 5310 – *Medical Interviewing*) with the physical examination is reviewed and rehearsed. The laboratory experience utilizes simulated patients.

AHPA 5304 Medical Psychology (3:3:0) This is a lecture series that distinguishes acute and chronic psychiatric diseases that are frequently encountered in primary care clinical practice. The course will apply interviewing techniques, learned in AHPA 5310 – *Medical Interviewing*, to the approach to patient with a psychiatric illness.

AHPA 5305 Clinical Methods and the Approach to the Patient (3:3:0) This is a lecture series that analyzes the objective and orderly approach to the patient. The development of a differential diagnosis will be explored. Students will be challenged with clinical simulation vignettes.

AHPA 5308 Neuroscience (3:3:0) This is a lecture series that details the human nervous system, with emphasis on the recognition of neuroanatomical arrangement. The course will explore neurophysiology and concepts of neurochemistry. This is a distance-learning course taught by interactive teleconferencing from the TTUHSC campus in Lubbock.

AHPA 5310 Medical Interviewing (3:3:0) This course will focus on the "how to" aspects of patient interviewing, communication skills and counseling skills. Class sessions will include lectures, interviewing labs and role-playing exercises. Small groups will 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 actual patients in the hospital.

AHPA 5403 Clinical Medicine I (4:4:0) This is a lecture series that distinguishes the complex disease states frequently encountered in the adult internal medicine setting. Students will be challenged correlate the subjective signs and symptoms with physical examination findings to the clinical pathophysiology in developing a problem oriented approach to diagnosis and treatment. The approach to problems in otolaryngology, cardiology, pulmonology, gastroenterology, hematology and endocrinology are explored.

AHPA 5404 Clinical Medicine II (4:4:0) This is a lecture series that differentiates the acute and chronic disease states frequently encountered in the family practice setting. Students will be challenged to correlate the subjective signs and symptoms with physical examination findings to the clinical pathophysiology in developing a problem oriented approach to diagnosis and treatment. The family medicine relevance to neonatology, obstetrics, gynecology, pediatrics, dermatology and psychiatry are explored.

AHPA 5405 Pharmacotherapeutics (4:4:0) This is a lecture series that expands on the concepts learned in AHPA 5202 – *Introduction to Pharmacology.* The action and interaction of pharmacological agents is discussed. Therapeutic applications, adverse reactions and contraindications to familiar drugs are considered.

AHPA 5406 Physiology (4:4:0) This is a lecture series that investigates human physiology through a detailed explanation of the functions and activities of bodily processes as related to the health care. The series 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 is a lecture series that integrates normal human physiology with the pathological basis of disease. The series 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 is a lecture/laboratory series that encompasses a regional study of the gross morphological features of the human body. The course will explore the development of the human embryo from fertilization to parturition. The lecture portion of this course is a distance-learning arrangement taught by interactive teleconferencing from the TTUHSC campus in Lubbock. A portion of the laboratory experience will involve computer-assisted learning. Students will participate in a human cadaver prosection laboratory held at TTUHSC in Lubbock on alternate Fridays during the semester.

AHPA 6201 Medical Ethics & Jurisprudence (2:2:0) This is a lecture series that examines prominent ethical issues in health care delivery. Students will be engaged in discussion of ethical dilemmas relevant to clinical practice and the unique relationship of the physician and physician assistant. The course will also examine practice statues and rules regulating physician assistant practice in Texas.

AHPA 6301 Preventive Medicine & Community Health (3:3:0) This is a lecture series that explores preventable disease and resources for health maintenance and risk factor reduction within the community. The course will consider communicable disease, acute disease, chronic disease, environmental health, occupational medicine and epidemiology.

AHPA 6303 Introduction to Clerkship (3:3:0) This is a lecture series that prepares the student for clinical clerkships. Discussions will address appropriate protocol, behavior and dress within the clinical setting. Weekly workshops will enable the student to learn and perform procedures that are essential to clinical practice.

AHPA 6402 Clinical Medicine III (4:4:0) This is a lecture series that explores specialized and tertiary health care. Students will learn the importance of the relationship between primary care practice and specialty practices. Areas of study will include medical specialties, surgical specialties, and emergency medicine. Technical health care in sophisticated, research and teaching hospitals is evaluated.

AHPA 6403 Health Care Management (4:4:0) This is a lecture series that informs and prepares the graduate for basic clinical office or hospital practice management. Discussion will emphasize reimbursement issues, coding/billing procedures, licensing and authorization of privileges that are exclusive to physician assistant practice.

AHPA 6404 Master Project Tract (4:4:0) This is a research and writing prospectus. Students must prepare and submit a manuscript for evaluation. The document must be informative, established from evidence based research or it may be a scientific investigation of clinical data gathered by the student. Throughout the course the student will be instructed and monitored in the stages of developing a text suitable for publication.

AHPA 6601 Family Medicine Clerkship (6:0:40) This clerkship will provide experience with common diseases and chronic illnesses in the family practice setting and will be composed of one six-week rotation. The learning experience will include the family medicine approach to direct care, initial care, comprehensive care and continuity of care. The student will participate 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 six-week rotation will provide clinical experience with acute and chronic illnesses seen in the general internal medicine practice. The student will experience the traditional approach to the comprehensive care of adult patients to include continuity of care. Clinical experience in preventive medicine and health and wellness maintenance techniques, especially in secondary and tertiary settings, will be provided.

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

AHPA 6604 Pediatrics Clerkship (6:0:40) The Pediatric rotation is designed to provide PA students with experience in the specialty of pediatric medicine for six weeks. This clerkship will provide 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 rotation will provide the PA student with experience in the emergency department with urgent and emergent medical problems and with trauma and surgical cases. This six-week clerkship will include 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 rotation will provide a clinical experience with one of the most rapidly growing patient populations in the United States. The six-week clerkship will provide 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 will provide experience with common acute and chronic psychiatric diseases and illnesses in both the outpatient and inpatient settings. The student will also learn about and interact with public and private treatment facilities for substance abusers and their affiliated support groups, local public counseling agencies, and state psychiatric facilities.

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

DEPARTMENT OF REHABILITATION SCIENCES

Program in Clinical Support 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. 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., CSSM 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., CSSM 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: To be granted unconditional admission, an A.A.S. degree with an overall grade point average of 2.5 on a 4.0 scale is required as well as the completion of the common core curriculum requirements.

Provisional Admission: Applicants who have less than a 2.5 grade point average; have an A.A.S. degree but have not completed the common core curriculum requirements for a baccalaureate degree; or have an Associate of Arts or Associate of Science degree 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 maintain a 2.7 grade point average in their first 30 semester credit hours to remove the provisional status.

Core Curriculum Requirements include:

English	6 hours
History	6 hours
Math	3 hours
Political Science	6 hours
Humanities	3 hours
Natural Science	6 hours
Social Science	3 hours
Visual & Performing Arts	3 hours
Core Curriculum Electives	6 hours

THE 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.

All 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.

COURSEWORK

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 program requires the completion of all required core courses prior to enrollment in the advanced management courses and electives.

Required Core Courses:

AHCM 4301 Introduction to Healthcare Management
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

Required Advanced Management Courses:

AHCM 4307 Material Management for Clinical Supervisors
AHCM 4311 The U.S. Health Care System
AHCM 4313 Community Health Issues
AHCM 4314 Quality Assurance/Risk Management
AHCM 4331 Leadership in Healthcare Organizations
AHCM 4401 Healthcare Management Information Systems
AHCM 4477 Case Study – Summer I
AHCM 4478 Case Study – Summer II

Elective Courses: (Students must complete any four of the following)

AHCM 4305 Capital Project Design
AHCM 4312 Foundations of Managed Care
AHCM 4315 Issues in Gerontology for Healthcare Managers
AHCM 4316 Integrated Deliver Systems and Organizational Relationships
AHCM 4352 Exercise Science and Sports Medicine Management
AHCM 4354 Rehabilitation Counseling Policy and Practice
AHCM 4360 Special Topics
AHCM 4361 Special Topics

OR

Emergency Medial Services (EMS) track available as electives:
AHEM 3300 EMS in Healthcare System
AHEM 4310 EMS Operation Management
AHEM 4320 Healthcare Communications and Systems Management
AHEM 4330 Mass Casualty and Disaster Response in Healthcare

COURSE DESCRIPTIONS

AHCM 4301 Introduction to Healthcare Management (3:3:0) The course will review basic healthcare management principles and study the roles and functions of contemporary healthcare managers. Topics include healthcare organizational theory and behavior, motivation, leadership, budgeting processes, information systems, and management control systems.

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, financial and inventory control.

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 4307 Materiel Management for Clinical Supervisors (3:3:0) An overview of identifying materiel requirements for a clinical support service activity, commercial sources, procurement, tendering contracts, and inventory management controls. Topics include the establishment of policies and procedures, internal controls, property book inventory, repair and replacement of capital equipment and negotiation and development of contracts including a legal review.

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 underserved 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 payors; 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 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 4352 Exercise Science and Sports Medicine Management (3:3:0) This course examines issues and skills needed in planning, coordinating, and supervising all administrative components in an exercise science or sports medicine program. Special topics include the marketing and financial concepts of an exercise or sports medicine program.

AHCM 4354 Rehabilitation Counseling Policy and Practice (3:3:0) An introduction to the history and philosophy of rehabilitation and the legislative and policy background that give the foundation for Rehabilitation Counseling. Special topics include issues for organizations with disabled employees.

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 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.

AHEM 3300 Emergency Medical Services in the Healthcare System (3:0:0) History of prehospital emergency medical services; federal, state, and local authority for delivery of services; models for state, regional, and local systems; resources for and constraints to EMS systems development; relationship to and impact on public safety and health care delivery systems; interface of public and private organizations; current and future issues.

AHEM 4310 Emergency Operations Management (3:0:0) Prerequisite: AHCM 3300. Issues concerning the daily operations in prehospital emergency medical services involving unit hour management; staffing and scheduling; fleet management; preventive maintenance systems; maintenance vendor contracting; medical protocol development; risk management and loss control; models for quality assurance; clinical audit and review. Also addresses community service programs; media relations and crisis communications at the operational level. Information concerning fleet vehicle specifications and design; post purchase modifications; vehicle refurbish and remount; fleet performance standards will also be addressed.

AHEM 4320 Healthcare Communication Systems and Practices (3:2:3) Prerequisite: AHEM 3300. Planning, development, and management of local, regional, and state EMS communications systems; FCC regulations; installation, operation, and testing of common systems; interface with 911 and other public safety communications systems; receiving, dispatching, and radio communications procedures; code and numbering systems; records and reports; priority medical dispatch systems; prearrival instruction; automatic vehicle locator systems; tactical deployment/systems status management; computer-assisted dispatch; communications for aeromedical operations. Advanced technology such as telemedicine and legal aspects of communication in healthcare will also be addressed.

AHEM 4330 Mass Casualty and Disaster Response in Healthcare (3:2:4) Prerequisite: AHEM 3300. Planning and execution of emergency operations requiring extensive interagency cooperation. Topics include comprehensive emergency management/ integrated emergency management systems; incident planning principles; incident command systems; mutual aid and inter-local agreements; management of prehospital healthcare roles during mass casualty incidents, hazardous materials incidents, and specialized rescue operations; special event/mass gathering planning; operations in support of law enforcement and fire suppression agencies

Program in Athletic Training

An Athletic Trainer is "an educated and skilled professional specializing in the prevention, treatment, and rehabilitation of injuries common to participation in sport activities" as described by the National Athletic Trainers' Association (NATA). Athletic Trainers are integral members of the health care team, working in cooperation with physicians and other allied health personnel in settings such as secondary schools, colleges and universities, sports medicine clinics, professional sports programs, industrial settings and other healthcare environments.

The American Medical Association recognized athletic training as an allied health profession in 1990. As it has evolved into its present position as a recognized allied heath profession, Athletic Training has undergone major educational reform.

After graduating from an accredited professional education program, athletic trainers must pass the National Athletic Trainers' Association Board of Certification (NATABOC) certification 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 licensure 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 MAT program has been admitted to Candidacy by the Joint Review Committee for Accreditation of Athletic Training Educational Programs (JRC-AT). This is the first step toward CAAHEP accreditation. Programs must be in Candidacy for a minimum of two years before a site visit and accreditation recommendation can be made to CAAHEP. The MAT program anticipates being eligible for CAAHEP accreditation in the 2003. **(Candidacy with the JRC-AT does not guarantee CAAHEP accreditation.)**

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 57 semester credit hour 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/universities, high schools, allied health clinics, professional sports, 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. 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 NATABOC and the licensure examination of the Texas Department of Health 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 twenty (20) 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. You might be able to include this purchase in your financial aid package.

ADMISSION TO THE PROGRAM
The athletic training program begins the Tuesday after Memorial Day each year. The Admission process is very competitive. Applicants must have earned a degree from an accredited college or university, complete the application process (outlined below), and have completed or plan to complete all prerequisites prior to enrollment.

PREREQUISITE COURSES	**Semester Hours**
Required courses include:	
Anatomy (4) & Physiology (4) {or A&P I and II (8)}	8
Exercise Physiology	3
Statistics	3
Nutrition	3
Proof of CPR and First Aid from approved provider.	
Recommended courses include:	
Kinesiology/Biomechanics	3
Total Hours	**17**

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

GPA REQUIREMENTS
To be considered for admission, an overall grade point average of 2.7 on a 4.0 scale is 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 NATABOC certified athletic trainer. It is recommended that applicants have a minimum of 50 clock hours of observation experience under a NATABOC certified athletic trainer prior to submitting an application for admission.

APPLICATION PROCESS
Applications for prospective MAT students must be submitted by February 1st for summer enrollment. The following information is required for an individual to be considered for the MAT program:

1. a completed application packet
2. two letters of recommendation
3. official transcripts from all colleges/universities attended
4. proof of immunizations (see health concerns below)
5. verification of observation hours (optional – see experience above)

Students who would like to be considered for Early Admission into the MAT program must have his/her application submitted to the School of Allied Health Sciences, Office of Admissions and Student Affairs, 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 School of Allied Health Sciences, Office of Admissions and Student Affairs. All qualified candidates selected by the Athletic Training Admissions Committee will be contacted for an interview. Fulfillment of the basic requirements does not guarantee admission. Acceptance into the MAT program is based on grade point average (cumulative and prerequisite courses), completion of all prerequisite courses, athletic training observation/experience (optional), letters of recommendation and interviews. A maximum of twenty (20) full-time students will be admitted into the MAT program each year.

ESSENTIAL FUNCTIONS (TECHNICAL STANDARDS)
A list of the essential functions for the MAT program and the Department of Rehabilitation Sciences can be found in the Department of Rehabilitation Sciences Student Handbook or obtained from the MAT program director. Please familiarize yourself with the essential functions document. These are established minimum physical and mental guidelines necessary for the MAT program.

HEALTH CONCERNS
All students admitted to the MAT program are required to provide documentation of the Hepatitis B vaccination (completed or in progress). Additionally, each student must provide the MAT program director with a copy of a complete health evaluation by an appropriate health care provider upon his/her enrollment into the Master of Athletic Training program.

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 & Physiology I	4
ZOOL	2404	Human Anatomy & Physiology II	4
			Required Hours = 8
Statistics			**Credit Hours**
MATH	2300	Statistical Methods	3
		or	
PSY	3403	Statistical Methods	3
			Required Hours = 3
Exercise Physiology			
ESS	3305	Exercise Physiology	3
			Required Hours =3
Nutrition			
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	Mechanical Kinesiology	3
		or	
ESS	3305	Scientific Basis of Exercise	3
			Recommended Hours = 3

PROFESSIONAL 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 MAT Program Director.

FIRST YEAR

Summer Semester	**Course**	**Credit Hours**
AHAT 5122	Introduction to Clinical Education	1
AHAT 5200	Research Methods in Athletic Training	2
AHAT 5204	Principles of Kinesiology	2
AHAT 5500	Human Anatomy	5
		Total Hours = 10

Fall Semester	**Course**	**Credit Hours**
AHAT 5201	Clinical Rotation I	2
AHAT 5202	Management & Prevention of Injuries	2
AHAT 5205	Research Methods II	2
AHAT 5305	Clinical Kinesiology	3
AHAT 5505	Patient Evaluation & Management I	5
		Total Hours = 14

Spring Semester	**Course**	**Credit Hours**
AHAT 5206	Clinical Rotation II	2
AHAT 5208	Management of Acute Injuries	2
AHAT 5304	Special Topics in Athletic Training	3
AHAT 5506	Patient Evaluation & Management II	5
		Total Hours = 12

SECOND YEAR

Summer Semester	**Course**	**Credit Hours**
AHAT 5120	Research Directed Study I	1
AHAT 5220	Musculoskeletal Evaluation & Management I	2
AHAT 5099	Independent Study (Optional)	2
		Total Hours = 3-5

Fall Semester	**Course**	**Credit Hours**
AHAT 5223	Special Populations & Concerns	2
AHAT 5225	Clinical Rotation III	2
AHAT 5227	Current Medical Diagnosis & Treatment I	2
AHAT 5529	Musculoskeletal Evaluation & Management II	5
		Total Hours = 11

Spring Semester	**Course**	**Credit Hours**
AHAT 5126	Research Directed Study II	1
AHAT 5224	Management/ Identification of General Medical Conditions	2
AHAT 5228	Clinical Rotation IV	2
AHAT 5422	Administration of AT Programs & Professional Development	4
		Total Hours = 9

During professional studies, students are required to adhere to all university, school, department, and program policies including academic and behavioral guidelines as stated in this catalog and the Department of Rehabilitation Sciences Student Handbook. Expenses incurred on clinical rotations are the responsibility of the student.

COURSE DESCRIPTIONS: PROFESSIONAL CURRICULUM

AHAT 5098 Practicum in Athletic Training. 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. 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 5120 Research-Directed Study I (1:0:3) Completion of a research project including preparation of a manuscript suitable for publication in the sports health care literature. Course requirements include a literature review and demonstration of satisfactory progress as determined by the student's project advisor.

AHAT 5122 Introduction to Clinical Education (1:0:3) 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.

AHAT 5126 Research-Directed Study II (1:0:3) Completion of a research project including preparation of a manuscript suitable for publication in the sports health care literature. Requirements include completion of the manuscript and acceptance by the project advisory committee.

AHAT 5200 Research Methods (2:2:0) Development of a working knowledge of descriptive and experimental research techniques and statistics.

AHAT 5201 Clinical Rotation 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 5202 Management and Prevention of Injuries (2:1:3) 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.

AHAT 5204 Principles of Kinesiology (2:1:3) Course will provide an in-depth study of applied human anatomy and basic kinesiology with emphasis on normal gross form and function as it relates to Athletic Training practice. Hands on surface anatomy with palpation labs are utilized.

AHAT 5205 Research Methods II (2:2:0) Continuation of material introduced in Research Methods (AHAT 5200).

AHAT 5206 Clinical Rotation 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 5208 Management of Acute Injuries (2:1:3) An advanced athletic training course covering pathomechanics of athletic injuries. Comprehensive analysis of liability risk factors and practical considerations in development of sports emergency care plans, implementation of emergency procedures, and initial injury management. Laboratory practice in selected emergency care techniques.

AHAT 5220 Musculoskeletal Evaluation and Management I (2:1:3) Theory, principles, clinical applications and literature review associated with athletic training evaluation, assessment, and management of musculoskeletal conditions within the upper extremity.

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

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

AHAT 5225 Clinical Rotation 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 etilogy, differential diagnosis, prognosis, medical and surgical management, and prophylactic measures for each condition relevant to athletic training.

AHAT 5228 Clinical Rotation 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 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 (3:2:3) Problem-solving approach to the study of human movement with integration of biomechanics fundamental to understanding exercise concepts and musculoskeletal evaluation. The course included 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 5422 Administration of Athletic Training Programs & Professional Development (4:3:3) 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 health care delivery systems, facilities, equipment, and financial resources.

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 5505 Patient Evaluation and Management 1 (5:3:6) Development of clinical skills fundamental to patient management. Introduction to record keeping, clinical evaluation procedures; including skill assessment, posture, joint mobility, muscle strength, and sensory function and clinical decision-making. Introduction to concepts and application of therapeutic exercises.

AHAT 5506 Patient Evaluation and Management II (5:3:6) Theory, principles, literature review, and clinical applications associated with Athletic Training evaluation, assessment and management. This course emphasizes the use of physical agents, biofeedback, early balance differential assessment and the care of burns and wound management. This course will also include an introduction to orthopedic assessment.

AHAT 5529 Musculoskeletal Evaluation and Management II (5:3:6) Theory, principles, literature review and clinical applications associated with athletic training evaluation, assessment and management of musculoskeletal conditions within the lower extremity and spine.

Program in Physical Therapy

Physical therapy is a health profession that assists people in regaining and maintaining health and functional independence after illness or injury. Physical therapists evaluate, prevent and limit physical disability and pain, promote healing, and restore/maintain functional ability. Physical therapy management involves direct patient treatment, education of the patient, family and staff consultation and community advisement.

Physical therapists treat people of all ages and with various types of disabilities, such as premature infants, children with birth defects or special education needs, and adults recovering from injuries and illnesses. Individualized treatment plans are designed by the physical therapist according to the specific needs and goals of each patient. Therapists also work to help restore emotional well being through the building of self-confidence in new and relearned skills. A wide range of employment opportunities in a number of different settings are available for the physical therapist. As integral members of the health care team, physical therapists work with physicians other rehabilitation professionals (such as occupational therapists, athletic trainers and speech therapists). Physical therapists practice within traditional medical settings, such as hospitals and rehabilitation centers, and also in less traditional, more community-oriented settings such as public and private schools, sports medicine centers, home health agencies, health clubs and birthing centers. Additionally, physical therapists are often active in preventive health endeavors such as public education programs, physical fitness, athletic screening, postural screening and high-risk infant clinics. Physical therapists are involved as investigators in basic and clinical research, and serve as both academic and clinical faculty members. In the community, physical therapists act as consultants in local, state and federal health-planning activities and in special recreational programs.

After graduating from an accredited professional education program, physical therapists must pass a state administered licensure examination in order to legally practice physical therapy. Additional licensure requisites for physical therapy vary from state to state according to physical therapy practice acts and state regulations that govern physical therapy.

PROGRAM DESCRIPTION

The Master of Physical Therapy program at TTUHSC (with campuses in Amarillo, Lubbock and Odessa) is fully accredited by the Commission on Accreditation in Physical Therapy (CAPTE) through the year 2007.

Expanding services offered in the field of physical therapy and the needs of the West Texas area have promoted the development of an innovative, modern educational program in the School of Allied Health Sciences at the Texas Tech University Health Sciences Center. The three-year professional program of instruction includes over 1,100 hours of clinical experience. Student clinical education settings include facilities for acute care, pediatric care, orthopedic care and neurologic rehabilitation. Classroom, clinical laboratory and clinical experiences are integrated throughout the professional curriculum. By providing clinical experience early in the professional education, the program enables continuous integration of clinical skills in the classroom. The program is housed on three campuses within the TTUHSC system: Lubbock, Odessa, and Amarillo. Successful completion of the professional curriculum leads to a Masters degree in Physical Therapy.

Class sizes are restricted to ensure optimal student/instructor ratios and to enable each student to receive comprehensive instructional and clinical experience. Faculty and students on all campuses communicate with each other in person, via state of the art interactive multimedia environments, through the Internet, as well as by phone and fax. 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 use of word processing programs. Students without computers are encouraged to purchase one and become familiar with it prior to beginning the program.

ADMISSION TO THE PROGRAM
The professional phase of physical therapy education begins in late May each year. A minimum of 90 semester hours of credit, including the courses listed below, is required prior to enrollment and may be completed in any regionally accredited college or University.

Prerequisite Courses	**Semester Hours**
Psychology/Sociology	6
Math	3
Statistics	3
General Biology (for majors, lab required)	8
A&P I and II (one course must be upper level)	6-8
General Chemistry (for majors, lab required)	8
General Physics (for majors, lab required)	8
*Electives	46-48
Total Hours	**90**

* Recommended courses: English, technical writing, speech, developmental and general psychology.

GPA REQUIREMENTS
Competitive cumulative and prerequisite science GPA's are required for consideration for admission. Individuals already holding baccalaureate and graduate degrees are eligible for admission with the same comtetitive GPA and prerequisite requirements.

EXPERIENCE
Applicants are expected to have some knowledge of the profession. This can be acquired in several ways including volunteer work, paid employee, and/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 as possible. Higher experience levels will strengthen an application.

THE APPLICATION PROCESS
Applications may be submitted at anytime, however, applications are considered twice a year for acceptance into the professional program. Applicants should submit an application by October 15th to be considered for early acceptance to the class that begins in May of the following year. Applicants not seeking early acceptance should submit an application no later than February 1st to be considered for acceptance into the class that will begin in May. Applicants will be expected to have completed all prerequisites prior to the start of PT Program courses. Applicants to the physical therapy program should understand that students admitted to the program are assigned to a specific campus, and no campus changes are anticipated. Students who are unable or unwilling to accept assignment to a specific campus should not accept admission to the Physical Therapy program. All students spend the first summer session on the Lubbock campus.

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 you during any related volunteer or paid work, and one from a previous or present instructor and/or counselor, previous or present employers.

All 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 who meet the above listed requirements, and are deemed to be suitable candidates for admission, will be invited to TTUHSC for interviews. Those selected will be contacted to arrange interview times. Applicants should understand that fulfillment of the basic requirements does not guarantee admission. The admission committee selects the applicants considered most qualified from the pool

of applicants interviewed.

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 & Physiology I	4
ZOOL	2404	Human Anatomy & Physiology II	4
*ZOOL	3405	Vertebrate Structure & Development	4
*ZOOL	4409	Comparative Animal Physiology	4
			Required Hours = 14-16

* Must take at least one upper division

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

In addition to the prerequisites listed above, at least 46-48 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.

PROFESSIONAL CURRICULUM

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

FIRST YEAR

Summer Semester*	**Course**	**Credit Hours**
AHPT 5200	Introduction to Patient Management	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 1	2
AHPT 5305	Clinical Kinesiology	3
AHPT 5405	Pathophysiology	4
AHPT 5505	Patient Evaluation and Management 1	5
		Total Hours = 14

Spring Semester	**Course**	**Credit Hours**
AHPT 5104	Clinical Education	1
AHPT 5108	Clinical Reasoning 1	1
AHPT 5204	Health Care Issues and Ethics	2
AHPT 5206	Pharmacology	2
AHPT 5304	Clinical Applied Physiology	3
AHPT 5506	Patient Evaluation & Management 2	5
		Total Hours = 14

SECOND YEAR

Summer Semester	**Course**	**Credit Hours**
AHPT 5122	Residual Limb Care and Prosthetics	1
AHPT 5224	Research Process 1	2
AHPT 5220	Musculoskeletal Evaluation and Management 1	2
AHPT 5336	Clinical Experience 1	3
		Total Hours = 8

Fall Semester	**Course**	**Credit Hours**
AHPT 5129	Clinical Reasoning 2	1
AHPT 5227	Current Medical Diagnosis and Treatment 1	2
AHPT 5229	Research Process 2	2
AHPT 5321	Adult Development and Aging	3
AHPT 5529	Musculoskeletal Evaluation and Management 2	5
		Total Hours = 13

Spring Semester	**Course**	**Credit Hours**
AHPT 5338	Clinical Experience 2	3
AHPT 5320	Early Growth and Development	3
AHPT 5228	Motor Control and Learning	2
AHPT 5128	Research Process 3	1

AHPT 5420	Neuroscience 2	4
		Total Hours = 13

THIRD YEAR

Summer Semester	**Course**	**Credit Hours**
AHPT 5444	Adult Neurorehabilitation	4
AHPT 5142	Current Medical Diagnosis and Treatment 2	1
AHPT 5146	Research Process 4	1
AHPT 5240	Personnel Management	2
AHPT 5150	Women's Physical Therapy (elective)	1
AHPT 5152	Seminar 1 (elective)	1
AHPT 5208	Management of Acute Injuries (elective)	1
AHPT 5156	Seminar 2 (elective)	1
AHPT 5158	Seminar 3 (elective)	1
	(2hours of electives are required)	
		Total Hours = 10

Fall Semester	**Course**	**Credit Hours**
AHPT 5341	Developmental Evaluation and Management	3
AHPT 5343	Cardiopulmonary Evaluation and Management	3
AHPT 5345	Health Care Business Administration	3
AHPT 5147	Research Process 5	1
AHPT 5243	Current Medical Diagnosis and Treatment 3	2
AHPT 5245	Orthotic Devices	2
AHPT 5149	Clinical Reasoning 3	1
		Total Hours = 15

Spring Semester	**Course**	**Credit Hours**
AHPT 5446	Clinical Experience 3	4
AHPT 5448	Clinical Experience 4	4
AHPT 5140	Graduate Seminar	1
		Total Hours = 9

During professional studies, students are required to adhere to all program policies and academic and behavioral guidelines as stated in the Physical Therapy Student Policy Manual. Expenses incurred on clinical rotations are the responsibility of the student.

COURSE DESCRIPTIONS: PROFESSIONAL CURRICULUM

AHPT 5099 Independent Study in Physical Therapy (1-6 hours) Prerequisite: Instructor approval. A structured review of previously presented classroom and/or laboratory experiences, literature review and discussion, clinical observation and/or hands-on clinical experience. Each independent study is designed to meet the professional student's particular needs. Prerequisite: Instructor approval.

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

AHPT 5108 Clinical Reasoning 1 (1:1:0) A structured, interactive review of previously presented classroom material is presented in a facilitation-based learning format. Positioning of the course at the completion of the first year allows a comprehensive learning framework and review. Class

learning method-interactive discussion and presentation.

AHPT 5122 Residual Limb Care and Prosthetics (1:1:0) Prerequisite: AHPT 5505, 5506. Study of technological materials and devices used in rehabilitation of patients with residual limbs. Includes in-depth study of materials, biomechanics, and proper fit of upper and lower extremity prostheses. Selection criteria for prosthetics, gait disturbances, and physical therapy management for persons with recent amputations are also included.

AHPT 5128 Research Process 3 (1:1:0) . Prerequisite: AHPT 5229. This course will continue research related activities of preceding research process courses.

AHPT 5129 Clinical Reasoning 2 (1:1:0) Prerequisite: AHPT 5108. The process of clinical reasoning is emphasized through the use of clinical cases and emerging practice paradigms for persons with orthopedic conditions. The course is comprised of laboratory sessions consisting of multiple case review, physical therapy differential diagnosis, treatment plans and demonstrations, and documentation in preparation for the second clinical experience.

AHPT 5140 Graduate Seminar (1:1:0) Prerequisite: AHPT 5149. Integrative seminar course format designed to prepare graduates for entering the work force. Seminar topics change yearly, but generally include information on clinical as well as business aspects to physical therapy. In addition, licensure application and exam orientation information is provided.

AHPT 5142 Current Medical Diagnosis and Treatment 2 (1:1:0) Corequisite: AHPT 5444.
This course examines the pathology, medical diagnosis process, and medical and surgical interventions of neuromuscular conditions in adults that are commonly seen by physical therapists.

AHPT 5146 Research Process 4 (1:1:0) Prerequisite: AHPT 5128. This course will continue research related activities of preceding research process courses.

AHPT 5147 Research Process 5 (1:1:0) Prerequisite: AHPT 5246. This course will continue research related activities of preceding research process courses.

AHPT 5149 Clinical Reasoning 3 (1:0:3) Prerequisite: AHPT 5129. The process of clinical reasoning is emphasized through the use of case studies and the application of current practice paradigms for person with neurological disorders.

AHPT 5150 Women's Physical Therapy (1:1:0) Prerequisite: AHPT 5529. Physical therapy prevention, examination, evaluation and intervention for conditions with special relevance for women. Developmental issues of special relevance in adolescence, during the childbearing and child-rearing years, and in later life will be covered. At the student's option, observation in labor and delivery may be arranged.

AHPT 5152 Seminar in Physical Therapy 1 (1:1:0) A seminar course examining current clinical and environmental issues in the field of physical therapy. Specific subject matter will change year to year.

AHPT 5156 Seminar in Physical Therapy 2 (1:1:0) A seminar course examining current clinical and environmental issues in the field of physical therapy. Specific subject matter will change year to year.

AHPT 5158 Seminar in Physical Therapy 3 (1:1:0) A seminar course examining current clinical and environmental issues in the field of physical therapy. Specific subject matter will change year to year.

AHPT 5200 Introduction to Patient Management (2:1:3) Introduction to basic clinical skills in the field of physical therapy, medical terminology and basic documentation. Includes transfer techniques, gait training, massage, vital signs, emergency procedures and use of special equipment.

AHPT 5202 Principles of Kinesiology (2:1:3) Course will provide an in-depth study of applied human anatomy and basic kinesiology with emphasis on normal gross form and function as it relates to Physical Therapy practice. Hands-on surface anatomy and palpation labs are utilized.

AHPT 5204 Health Care Issues and Ethics (2:2:0) Includes the study and application of legal guidelines and ethical principles as they relate to health care practice. Special emphasis is placed on ethical dilemmas relevant to the practice of physical therapy including current issues and problems affecting health care.

AHPT 5205 Neuroscience 1 (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, and the corresponding neurorehabilitative physical therapy treatments.

AHPT 5206 Pharmacology (2:2:0) Study of pharmacology and its relationship to pathophysiology, emphasizing the 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 musculo-skeletal, cardiovascular and central nervous system.

AHPT 5208 Introduction to Athletic Training (1:1:0) Focus on introducing the physical therapy student to the field of athletic training.

AHPT 5220 Musculoskeletal Evaluation and Management 1 (2:1:3) Prerequisite: AHPT 5506. Theory, principles, clinical applications and literature review associated with physical therapy evaluation, assessment, and management of musculoskeletal conditions within the upper extremity.

AHPT 5223 Research Process 1 (2:2:0) This course introduces students to fundamentals of experimental research design. Through the use of lecture, class discussion, and reading of selected journal articles, students will obtain the requisite knowledge of the research process and experimental designs commonly used in clinical studies. The course will also introduce fundamental concepts of statistical inference, as an introduction to the inferential statistics content to be continued in Research Process 2. Students will also be instructed on how to perform searches of the scientific literature with electronic databases and how to critically assess this literature.

AHPT 5227 Current Medical Diagnosis and Treatment 1 (2:2:0) Corequisite: AHPT 5529. Physician presentation of the medical approach to the management of musculoskeletal disorders and injuries. Course content includes etiology, differential diagnosis, prognosis, medical and surgical management, and prophylactic measures for each condition relevant to physical therapy.

AHPT 5228 Motor Control and Learning (2:2:0) Prerequisite: AHPT 5529. This course emphasizes the principles and various theories of motor control and motor learning and their application to physical therapist practice.

AHPT 5229 Research Process 2 (2:2:0) Prerequisite: AHPT 5224. This course will focus on developing skills in critically reading the peer-reviewed scientific literature.

AHPT 5240 Personnel Management (2:2:0) Prerequisite: AHPT 5204. Provides initial personnel management perspectives needed by the entry-level physical therapist in a clinical setting.

AHPT 5243 Current Medical Diagnosis and Treatment 3 (1:1:0) Corequisite: AHPT 5341. Designed to provide information on cardiopulmonary disorders frequently encountered by physical therapists. Physician's presentation of etiology, pathology, clinical signs and symptoms, diagnosis, prognosis, medical/surgical treatment of cardiopulmonary disorders relevant to physical therapy practice.

AHPT 5245 Orthotic Devices (2:1:3) Prerequisite: AHPT 5122. Study of orthotic devices used in physical therapy management. Includes in-depth study of materials, biomechanics, and construction of upper and lower extremity orthoses, spinal orthoses, and wheelchair options. Introduction to powered mobility options, environmental controls, and augmentative communication devices. Selection criteria for wheelchairs and orthoses are covered.

AHPT 5304 Clinical Applied Physiology (3:2:3) Prerequisite: AHPT 5505. Course will include metabolism, mechanical efficiency, aerobic and anaerobic work, and muscle phenomena of strength, endurance, and fatigue. Also included will be respiration and exercise, maximal aerobic power assessment, prediction of aerobic power, normal physiological responses to acute and chronic exercise and physical training principles. This course will also emphasize scientific basis and rationale for health promotion, wellness and healthy aging. Physical therapy evaluation and management of patients with cardiovascular and pulmonary disorders in acute care settings will also be discussed.

AHPT 5305 Clinical Kinesiology (3:2:3) Prerequisite: AHPT 5202. 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 & gait assessment.

AHPT 5320 Early Growth and Development (3:3:0) Prerequisites: AHPT 5500, 5405. Corequisites: AHPT 5228, 5420. Study of human growth and development issues and theories relevant to the practice of physical therapy for children. Emphasis on typical and atypical physical growth and motor development and on developmental testing. 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) In-depth approach to the physical, psychological, emotional, cultural and socioeconomic influences involved with adult development. Considerable emphasis is placed on age-related changes and current literature regarding effective treatment of this area.

AHPT 5336 Clinical Experience 1 (3:0:9) Prerequisite: AHPT 5506, 5304. This six-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.

AHPT 5338 Clinical Experience 2 (3:0:9) Prerequisite: AHPT 5529. This six-week full-time clinical experience allows the student to practice acquired skills and learn additional clinical skills including all basic and advanced orthopedic 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.

AHPT 5341 Developmental Evaluation and Management (3:2:3) Prerequisites: AHPT 5529, 5444. Introduction to the modification of physical therapy examination, evaluation and management for the special developmental needs of children with orthopedic or neuromuscular conditions. Includes consideration of the requirements for physical therapy practice in specialized settings such as neonatal intensive care, Birth to Three programs, and public schools. Treatment approaches are integrated from various sources including motor control theory, neurodevelopmental treatment, sensory integration and applied research.

AHPT 5343 Cardiopulmonary Evaluation and Management (3:2:3) Prerequisite: AHPT 5304. Scientific basis, rationale and application of assessment, prevention and treatment principles and techniques for patients with acute and chronic cardiopulmonary disorders. Comprehensive and in-depth physical therapy evaluation and management of patients with multi-system disorders will be discussed.

AHPT 5345 Health Care Business Administration (3:3:0) Prerequisite: AHPT 5240. The process involved with organizing, directing, developing, and measuring the management and entrepreneurial components of a physical therapy practice. Skilled techniques associated with business and professional growth are the hallmarks of this course.

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

AHPT 5420 Neuroscience 2 (4:3:3) Prerequisite: AHPT 5205. This course consists of an examination of the human nervous system, with an emphasis on the functional relationships of neuroanatomical structures. Topics to be covered 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 5444 Adult Neurological Assessment and Rehabilitation (4:3:3) Prerequisite: AHPT 5420, 5320. This course examines physical therapy examination, evaluation, prognosis, intervention, and outcomes for adult clients with neurological disorders based on current research, evidence, and practice guidelines.

AHPT 5446 Clinical Experience 3 (4:0:12) Prerequisite: AHPT 5444, 5341. 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 neuro rehab 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.

AHPT 5448 Clinical Experience 4 (4:0:12) Prerequisite: AHPT 5444, 5341. 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 neuro rehab 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.

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

AHPT 5505 Patient Evaluation and Management 1 (5:3:6) Prerequisite: AHPT 5200. Includes basic evaluation skills such as history-taking in the acute care and outpatient settings, chart review, goniometry, manual muscle testing, and sensory testing. It also includes beginning level treatment skills utilizing therapeutic exercise theory and prescription, and principles of care in the ICU. Beginning-level problem solving skills are developed using multiple case studies.

AHPT 5506 Patient Evaluation and Management 2 (5:3:6) Prerequisite: AHPT 5401, AHPT 5505. Theory, principles, literature review and clinical applications associated with Physical Therapy evaluation assessment and management. The course emphasizes the use of physical agents, biofeedback, early balance differential assessment and the care of burns and wound. This course will also include an introduction to orthopedic assessment.

AHPT 5529 Musculoskeletal Evaluation and Management 2 (5:3:6) Prerequisite: AHPT 5220. Theory, principles, clinical applications, and literature review associated with physical therapy evaluation, assessment, and management of musculoskeletal conditions within the lower extremity and spine.

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

THE 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. Three reference letters are required; two from professional colleagues and one from a previous or present employer.

All 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.

POST-PROFESSIONAL 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.

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 1, BSPT graduates attend all*

	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 Health Care 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

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: POST-PROFESSIONAL CURRICULUM

AHPT 6201 Advanced Clinical Practice for Shoulder Afflictions (2 credits) 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 credits) 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 credits) 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 credits) 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 credits) 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 credits) 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 credits) 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 credits) 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 credits) 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 credits) 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 credits) 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 credits) 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 credits) Clinical internship for the Sc.D.,PT student. During this 3-week rotation, the Sc.D.,PT 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 2 (2 credits) Second phase of clinical internship for the Sc.D.,PT 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 credits) This course represents an independent research internship for the ScD student. During this independent study, the ScD 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 credits) This course represents a continuation of AHPT 6215. During this independent study, the ScD 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 1 (3 credits) Survey of the professional issues surrounding the advanced practice of orthopaedic Physical Therapy and manual therapy. Topics include history of orthopaedic manual therapy, legal and ethical aspects of manual therapy, risk management, and communication and patient education in clinical management.

AHPT 6302 Issues in Orthopaedic Physical Therapy and Manual Therapy 2 (3 credits) Survey of selected topics in Basic and Applied Science as they relate to orthopaedic Physical Therapy and manual therapy. The discussions will highlight topic areas that include neurophysiology, histology, exercise physiology, and applied medical science.

AHPT 6303 Basic and Applied Science in Orthopaedics (3 credits) 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 credits) 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 credits) Evaluation of 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.,PT courses.

AHPT 6311 Clinical Studies in Anatomy; a Lab Course (3 credits) 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 credits) Prerequisite: AHPT 6302 or consent of the instructor. 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 credits) 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 credits) 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 Health Care Administration (3 credits) 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 credits) 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 7000 Clinical Research / Education Project (2 credits) 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 credit) Student presents the development and findings from the clinical project (with either a research or teaching emphasis) before the Sc.D.,PT faculty, other students and clinicians from the community.

AHPT 7301 Seminar in Clinical Research Design (3 credits) Study of methods in clinical research. Processes of obtaining, processing, interpreting, and using clinical data.

AHPT 7302 Non-Parametric Statistics for Clinical Research (3 credits) Methods in non-parametric statistical analysis and qualitative design. Explore various non-parametric tools and include one, two, and k-sample designs. Emphasis on clinical research using either single-case or small clinical samples.

AHPT 7303 Instructional Technology in Allied Health (3 credits) Utilization of 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 credits) Discussion of 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 credits) 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 credits) 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.

Master of Athletic Training/ Master of Physical Therapy Two-Degree Option

Texas Tech University Health Sciences Center offers a two-degree option in Athletic Training and Physical Therapy. This innovative approach is unique in Texas and the United States. The Master of Athletic Training (MAT) and Master of Physical Therapy (MPT) programs have a number of common courses in their curriculum allowing for the two-degree option to be completed in approximately four years. Students are able to begin coursework in either program.

The MAT program is currently housed on the Lubbock campus; therefore students admitted into the two-degree option would be assigned to the Lubbock campus.

Individuals with these two credentials are highly sought after in rehabilitation and sports medicine.

ADMISSION TO THE PROGRAM

Individuals interested in the two-degree option must be accepted independently into both the MAT and MPT programs. Applicants must meet the prerequisites for both the MAT and MPT programs. For a list of the prerequisites, please refer to the MAT and MPT sections of this catalog. Physical therapy students without a degree must graduate from the MPT program before the MAT degree can be awarded. 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.

CURRICULUM

The MAT/MPT two-degree option curriculum is outlined below. Please note that there are two curriculums. One curriculum applies to students entering the athletic training program, the other to students beginning with the physical therapy program.

For course descriptions please refer to the athletic training and physical therapy sections of this catalog.

Start in Athletic Training Program
FIRST YEAR

Summer Semester	**Course**	**Credit Hours**
AHAT 5500	Human Anatomy	5
AHAT 5202	Principles of Kinesiology	2
AHPT 5200	Introduction to Patient Management	2
AHAT 5122	Introduction to Clinical Education	1
		Total Hours = 10

Fall Semester	**Course**	**Credit Hours**
AHAT 5505	Patient Evaluation & Management I	5
AHAT 5202	Management & Prevention of Injuries	2
AHAT 5305	Clinical Kinesiology	3
AHAT 5201	Clinical Rotation I	2
		Total Hours = 12

Spring Semester	**Course**	**Credit Hours**
AHAT 5506	Patient Evaluation & Management II	5
AHAT 5208	Management of Acute Injuries	2
AHAT 5304	Special Topics in Athletic Training (Pharmacology component included)	3
AHAT 5206	Clinical Rotation II	2
		Total Hours = 12

SECOND YEAR

Summer Semester	**Course**	**Credit Hours**
AHAT 5220	Musculoskeletal Evaluation & Management I	2
AHPT 5126	Research Process I	2
AHPT 5122	Residual Limb Care and Prosthetics	1
AHAT 5099	Independent Study	2
		Total Hours = 7

Fall Semester	**Course**	**Credit Hours**
AHAT 5529	Musculoskeletal Evaluation & Management II	5
AHAT 5223	Special Populations & Concerns	2
AHAT 5227	Current Medical Diagnosis & Treatment I	2
AHAT 5225	Clinical Rotation III	2
AHPT 5229	Research Process 2	2
		Total Hours = 13

Spring Semester	**Course**	**Credit Hours**
AHAT 5422	Administration of Athletic Training Programs & Professional Development	4
AHAT 5224	Management/ Identification of General Medical Conditions	2
AHAT 5228	Clinical Rotation IV	2
AHPT 5128	Research Process 3	1
AHPT 5310	Clinical Applied Physiology	3
AHPT 5104	Clinical Education	1
		Total Hours = 13

Graduate with Master in Athletic Training in May of 2nd year with caveat that diploma will be issued in December after completion of Research Processes 4 & 5

THRID YEAR

Summer Semester	**Course**	**Credit Hours**
AHPT 5336	Clinical Experience I	3
AHPT 5204	Health Care Issues & Ethics (online course)	2
AHPT 5146	Research Process 4	1
		Total Hours = 6

Fall Semester	**Course**	**Credit Hours**
AHPT 5405	Pathophysiology of Body Systems	4
AHPT 5205	Neuroscience I	2
AHPT 5321	Adult Development & Aging	3
AHPT 5129	Clinical Reasoning 2	1
AHPT 5147	Research Process 5	1
		Total Hours = 11

Spring Semester	**Course**	**Credit Hours**
AHPT 5338	Clinical Experience 2	3
AHPT 5320	Early Growth & Development	3
AHPT 5228	Motor Control & Learning	2
AHPT 5420	Neuroscience 2	4
		Total Hours = 12

FOURTH YEAR

Summer Semester	**Course**	**Credit Hours**
AHPT 5444	Adult Neurorehabilitation	4
AHPT 5142	Current Medical Diagnosis & Treatment II	1
AHPT 5240	Personnel Management	2
		Total Hours = 7

Fall Semester	**Course**	**Credit Hours**
AHPT 5341	Developmental Evaluation & Management	3
AHPT 5343	Cardiopulmonary Evaluation & Management	3
AHPT 5345	Health Care Business Administration	3
AHPT 5243	Current Medical Diagnosis & Treatment III	2
AHPT 5245	Orthotic Devices	2
AHPT 5149	Clinical Reasoning 3	1
		Total Hours = 14

Spring Semester	**Course**	**Credit Hours**
AHPT 5446	Clinical Experience 3	4
AHPT 5448	Clinical Experience 4	4
AHPT 5140	Clinical Seminar	1
		Total Hours = 9

Total Two-Degree Option Program hours = 126

Graduate with Master in Physical Therapy degree in May of 4th year.

PT courses waived because material is included in MAT Program:

	Course	**Credit Hours**
AHPT 5128	Clinical Reasoning 1	1
AHPT 5206	Pharmacology	2
AHPT Electives		2
		Total Hours Waived = 5

Start in Physical Therapy Program

FIRST YEAR

Summer Semester	**Course**	**Credit Hours**
AHPT 5500	Human Anatomy	5
AHPT 5202	Principles of Kinesiology	2
AHPT 5200	Introduction to Patient Management	2
AHAT 5122	Introduction to Clinical Education	1
		Total Hours = 10

Fall Semester	**Course**	**Credit Hours**
AHPT 5505	Patient Evaluation & Management 1	5
AHPT 5405	Pathophysiology	4
AHPT 5305	Clinical Kinesiology	3
AHPT 5205	Neuroscience 1	2
		Total Hours = 14

Spring Semester	Course	Credit Hours
AHPT 5506	Patient Evaluation & Management 2	5
AHPT 5210	Clinical Applied Physiology	3
AHPT 5204	Health Care Issues & Ethics	2
AHPT 5104	Clinical Education	1
AHPT 5328	Clinical Reasoning 1	1
AHPT 5206	Pharmacology	2
		Total Hours = 14

SECOND YEAR

Summer Semester	Course	Credit Hours
AHPT 5336	Clinical Experience 1	3
AHPT 5220	Musculoskeletal Evaluation & Management I	2
AHPT 5223	Research Process 1	2
AHPT 5122	Residual Limb Care & Prosthetics	1
		Total Hours = 8

Fall Semester	Course	Credit Hours
AHPT 5529	Musculoskeletal Evaluation & Management 2	5
AHPT 5321	Adult Development & Aging	3
AHPT 5227	Current Medical Diagnosis & Treatment 1	2
AHPT 5229	Research Process 2	2
AHPT 5129	Clinical Reasoning 2	1
		Total Hours = 13

Spring Semester	Course	Credit Hours
AHPT 5338	Clinical Experience 2	3
AHPT 5420	Neuroscience 2	4
AHPT 5228	Motor Learning & Control	2
AHPT 5320	Early Growth & Development	3
AHPT 5128	Research Process 3	1
AHAT 5201	Clinical Rotation I	2
		Total Hours = 15

THIRD YEAR

Summer Semester	Course	Credit Hours
AHPT 5142	Current Medical Diagnosis & Treatment II	1
AHPT 5146	Research Process 4	1
AHAT 5208	Management of Acute Injuries	2
AHPT 5240	Personnel Management	2
AHPT 5444	Adult Neurorehabilitation	4
		Total Hours = 10

Fall Semester	Course	Credit Hours
AHPT 5341	Developmental Evaluation & Management	3
AHPT 5343	Cardiopulmonary Evaluation & Management	3
AHPT 5345	Health Care Business Administration	3
AHPT 5147	Research Process 5	1
AHPT 5243	Current Medical Diagnosis & Treatment III	2
AHPT 5245	Orthotic Devices	2
AHPT 5149	Clinical Reasoning 3	1
		Total Hours = 15

Spring Semester	Course	Credit Hours
AHPT 5446	Clinical Experience 3	4
AHPT 5448	Clinical Experience 4	4
AHPT 5140	Clinical Seminar	1
		Total Hours = 9

Graduate with Master in Physical Therapy in May of 3rd year.

Fourth Year

Summer Semester	Course	Credit Hours
AHAT 5206	Clinical Rotation 2	2
		Total Hours = 2

Fall Semester	Course	Credit Hours
AHAT 5202	Management & Prevention of Athletic Injuries	2
AHAT 5223	Special Populations & Concerns	2
AHAT 5225	Clinical Rotation 3	2
		Total Hours = 6

Spring Semester	Course	Credit Hours
AHAT 5304	Special Topics in Athletic Training	3
AHAT 5422	Administration of Athletic Training Programs & Professional Development	4
AHAT 5224	Management/Identification of General Medical Conditions	2
AHAT 5228	Clinical Rotation 4	2
		Total Hours = 11

Total Two-Degree Option Program hours = 126

Graduate with Master in Athletic Training in May of 4th year.

AT courses waived because material is included in MPT Program:

Course	Credit Hours
Research Component	4
Introduction to Clinical Education	1
	Total Hours Waived = 5

Program in Occupational Therapy

Occupational therapy is a challenging profession that calls on the therapist to use creative abilities in imaginative ways 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.

Unique skills 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 people of all ages; and for individuals, 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. 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-AOTA. Graduates of the program will be able 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). Most states require licensure in order to practice; however, state licenses are usually based on the results of the NBCOT Certification Examination. Before sitting for the National Exam, the student must complete Level II Fieldwork within 24 months following completion of all academic coursework.

The preprofessional phase of the curriculum consists of a minimum of 90 semester hours in general

education coursework with an emphasis on the physical and social sciences and humanities. These courses may be completed at any regionally accredited college or university.

The professional phase of the program begins in late May. Students will be involved in clinical experiences during the second and third year in the program. Following completion of all academic coursed, students undertake 6 months of full-time clinical fieldwork.

This program prepares the student to enter the field of occupational therapy with a background in basic sciences, research, theory, application, and clinical education. The curriculum covers life span from birth to aging, reflecting a broad perspective on physical, emotional, social and biological issues affecting the quality of daily living for persons with unique abilities. Additionally, the courses are sequenced from normal to abnormal, function to dysfunction, and professional foundation to professional leadership. Lectures, case studies, laboratory experiences and clinical education provide opportunities to integrate prior knowledge with new learning and develop competent professional behaviors. As this is a program to not only educate but to foster professional behaviors and commitment, occupational therapy students will exceed usual classroom hours in order to engage in clinical education, complete community assignments, and participate in professional development and leadership experiences, both assigned and voluntary.

Successful completion of the professional curriculum leads to a Master of Occupational Therapy degree. During professional studies, students are required to adhere to all program, departmental, School of Allied Health Sciences and Texas Tech University Health Sciences Center policies and academic and behavioral guidelines as outlined in the student handbook, fieldwork manual, and course outlines.

Class sizes are restricted to insure optimal student/instructor ratios and to enable each student to receive comprehensive instructional and clinical experience.

Faculty and students on the campuses communicate with each other in person, via interactive TV and through the internet, as well as by phone and fax. 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. You may be able to include this purchase in your financial aid package.

CLINICAL EDUCATION

Clinical education is an integral aspect of the program. Level I fieldwork experiences are scheduled throughout the professional program and allow students to reinforce and test the knowledge and attitudes presented in the classroom. Upon completion of the academic portion of the curriculum, the student is required to participate in a minimum of six months fieldwork in situations assigned by the academic fieldwork coordinator. These fieldwork situations are full time and will often require the student to relocate outside the immediate geographic area. Available assignments are determined by contractual arrangements between the department and facility. Students pay regular tuition and fees for enrollment in fieldwork. Optional fieldwork rotations in many specialty areas such as pediatrics, administration, hand therapy, and work hardening are also available.

ADMISSION TO THE PROFESSIONAL PROGRAM

To be considered for admission, the applicant must submit a current application and complete the application procedure, which includes a personal interview. A minimum cumulative GPA of 2.7 on a 4.0 scale is required. A grade of C or better is necessary in each required preprofessional course. At the time of application, all science coursework should 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 Admissions and Student Affairs for decisions concerning course acceptability. Individuals already holding a baccalaureate or graduate degree in other fields are

eligible for admission. They must have a 2.7 GPA in the last 90 semester hours and meet the same prerequisite requirements as all other applicants.

Provisional admission may be offered to applicants with a GPA less than 2.7. Such applications will be reviewed on an individual basis.

The applicants are expected to have some knowledge of the occupational therapy profession. This can be acquired in several ways; volunteer work, paid employment and/or observations in occupational therapy settings/services. Applicants must have completed a minimum of 40 clock hours of experience, preferably in two different settings, prior to the deadline for application to the program. Applicants are encouraged to become familiar with the occupational therapy professional literature, and current issues in the profession.

At the time of application, the student must demonstrate the ability to complete all prerequisite coursework prior to enrollment in his/her first professional curriculum course, or complete a plan to complete any elective prerequisite work, provide verification of work or volunteer experience in a health care setting, and submit 2 completed reference forms.

THE APPLICATION PROCESS

Applications are considered twice a year for enrollment in the professional curriculum. Those seeking early acceptance should submit applications by October 15th ; all other applications should be submitted by March 1st. It is in the best interest of the applicant to apply as early as possible.

Two recommendation letters are required and should be completed by professional personnel who have observed you during any related volunteer or paid work, previous or present instructors and/or counselors, previous or present employers. One letter should be from an occupational therapist.

The occupational therapy admissions committee may require a personal, on-campus interview of selected applicants. Those selected will be contacted to arrange for interview times. Applicants should understand that fulfillment of the basic requirements does not guarantee admission. The committee selects the applicants considered most qualified for the study and practice of the occupational therapy profession from the pool of applicants who interviewed.

PREPROFESSIONAL CURRICULUM

Course Content	**Credit Hours**	**Texas Tech Equivalent**
English	6	Engl 1301, 1302
Anatomy & Physiology with Lab	6-8	Zool 2403, 2404
General Physics	3	Phys 1306
Introductory Psychology	3	Psy 1300
Abnormal Psychology	3	Psy 4305
Introductory Sociology	3	Soc 1301
Statistics	3	Math 2300, Soc 3391 or Psy 3403
*Recommended courses in US History & Political Science	12	Hist 2300, 2301 or 3310 Pols 1301, 2302

Remaining credits to total 90 hours

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

These courses may be completed in any regionally accredited community college, college or university. In addition to completion of the above coursework, students must provide verification of required immunizations and current CPR certification. Certification must be maintained throughout the professional program.

PROFESSIONAL CURRICULUM

The following courses are offered once each year and must be taken in sequence. All prerequisites and corequisite requirements must be met. Any deviation from this sequence requires prior department chair approval.

The curriculum includes the following main components:

Human Sciences (20 credits)
- Human Anatomy
- Principles of Kinesiology
- Clinical Kinesiology
- Pathophysiology
- Human Neurosciences
- Current Medical Diagnosis and Treatment

Professional Concepts and Skills (16 credits)
- O.T. Professional Concepts
- Professional Skills I and II
- Adaptations and Technology
- Clinical Assessment and Reasoning
- Advanced Clinical Reasoning

Occupational Function/Dysfunction (40 credits)
- Neurodevelopment Sequences
- Psychosocial Aspects of Illness and Disability
- Occupational Function/Dysfunction: Children and Adolescents, I, II and III
- Occupational Function/Dysfunction: Adults I, II and III
- Occupational Function/Dysfunction: Older Adults I and II
- Community Health

Inquiry Skills (4 credits)
- Introduction to Research
- Research Methods: Quantitative and Qualitative

Practice Organization and Administration (5 credits)
- Health Organization Management
- Entrepreneurship for Health Professionals

Fieldwork (21 credits)
- Fieldwork I: 1 and 2
- Fieldwork II: 1, II: 2

Elective Courses (variable credits)
- Fieldwork II Optional Specialization
- Special Topics in Occupational Therapy
- Individual Project

FIELDWORK (AHOT 5931, 5932)

Students must be approved for fieldwork placement by the program director. Considerations in this recommendation include student's academic performance, completion of program requirements, demonstration of adequate professionalism and behaviors indicating ability to be effective and productive during clinical training, including problem solving ability and critical thinking. Students on fieldwork assignments should be able to follow safety procedures of the institution, plus any other requirements deemed important for fieldwork. Behaviors observed during the professional curriculum are evidence of a student's readiness for this level of fieldwork.

Level II fieldwork must be completed within 24 months following the completion of academic preparation.

CERTIFICATION

Graduates of the program will be able 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). Most states require licensure in order to practice; however, state licenses are usually based on the results of the NBCOT Certification Examination.

FIRST YEAR

Summer Semester	**Course**	**Credit Hours**
AHOT 5104	OT Professional Skills I	1
AHOT 5202	Principles of Kinesiology	2
AHOT 5500	Human Anatomy	5
		Total Hours = 8

Fall Semester	**Course**	**Credit Hours**
AHOT 5236	OT Professional Skills II	2
AHOT 5401	Human Physiology	4
AHOT 5303	Clinical Kinesiology	3
AHOT 5312	Professional Concepts	3
AHOT 5433	Current Medical Diagnoses and Treatment	3
		Total Hours = 15

Spring Semester	**Course**	**Credit Hours**
AHOT 5205	Neurodevelopmental Sequences	2
AHOT 5302	Human Neurosciences	3
AHOT 5304	Clinical Assessment & Reasoning	3
AHOT 5306	Adaptations & Technology	3
AHOT 5308	Pschosocial Aspects of Illness & Disability	3
		Total Hours = 14

SECOND YEAR

Summer Semester	**Course**	**Credit Hours**
AHOT 5221	Introduction to Research	2
		Total Hours = 2

Fall Semester	**Course**	**Credit Hours**
AHOT 5326	Health Organization Management	3
AHOT 5421	Occupational Function/Dys: Children & Adolescents I	4
AHOT 5423	Occupational Function/Dys: Adults I	4
AHOT 5425	Occupational Function/Dys: Older Adults I	4
AHOT 5224	Research Methods: Quantitative and Qualitative	2
		Total Hours = 17

Spring Semester	Course	Credit Hours
AHOT 5106	Fieldwork I: 1	1
AHOT 5235	Entrepreneurship	2
AHOT 5232	Advanced Clinical Reasoning	2
AHOT 5422	Occupational Function/Dys: Children & Adolescents II	4
AHOT 5424	Occupational Function/Dys: Adults II	4
AHOT 5323	Community Health	2
		Total Hours = 15

THIRD YEAR

Summer Semester	Course	Credit Hours
AHOT 5200	Fieldwork I:2	2
AHOT 5432	Occupational Function/Dys: Children & Adolescents III	4
AHOT 5434	Occupational Function/Dys: Adults III	4
AHOT 5436	Occupational Function/Dys: Older Adults II	4
		Total Hours = 14

Fall Semester	Course	Credit Hours
AHOT 5931	Fieldwork II: 1	9
		Total Hours = 9

Spring Semester	Course	Credit Hours
AHOT 5932	Fieldwork II: 2	9
		Total Hours = 9

COURSE DESCRIPTIONS: PROFESSIONAL CURRICULUM

AHOT 5071 Fieldwork II: Specialization (3-6:0:3-6) Prerequisite: 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) Prerequisite: approval of instructor and Program Director. Provides an opportunity for students to undertake a special project in an area of interest.

AHOT 5104 Occupational Therapy Professional Skills I (1:0:3) Introduction to key practice skills in occupational therapy.

AHOT 5106 Fieldwork I: 1 (1:0:3) Prerequisite: AHOT 5104, 5312, 5203. Part-time, supervised, opportunity to observe clinical practice and to participate, within limits, in the occupational therapy process with individuals and groups.

AHOT 5202 Principles of Kinesiology (2:1:3) Corequisite: AHOT 5500. Study of human motion with emphasis on biomechanics fundamental to understanding the clinical application of musculoskeletal evaluation, posture and gait assessment, and exercise.

AHOT 5205 Neurodevelopmental Sequences (2:2:2) Study of skill progressions in typical and atypical development and neurological recovery; including the sequences for key occupational tasks (ADL, school learning) and performance components (sensory, motor, cognitive).

AHOT 5221 Introduction to Research (2:2:0) Introduction to the research process with an overview of research design, measurement, ethics, proposal development, and support resources specific to research in occupational therapy.

AHOT 5200 Fieldwork I: 2 (2:0:3) Prerequisite: AHOT 5106, 5421, 5423, 5425. Part-time, supervised, opportunity to observe clinical practice and to participate, within limits, in the occupational therapy process with individuals and groups. As possible, this will allow students to explore occupational therapy contributions in "non traditional" or "role emerging" settings. Students will conduct a needs assessment in their assigned setting.

AHOT 5224 Research Methods: Quantitative and Qualitative Approaches (2:2:0) Prerequisite: AHOT 5221. Exploration of research methods, with an emphasis on quantitative and qualitative approaches. Evaluation and use of professional literature relevant to clinical practice.

AHOT 5232 Advanced Clinical Reasoning (2:2:0) Prerequisite: AHOT 5304, 5312. Capstone course using case studies presented by faculty and students to illustrate occupational therapy process, clinical reasoning skills used by novice and experienced therapists, development of a continuing professional education plan, and preparation for the certification exam.

AHOT 5235 Entrepreneurship for Health Professionals (2:2:0) Integration of content from previous courses to enhance potential for successfully managing the delivery of health services in a future of constant change. Knowledge and skills related to program/service needs identification, developing business plans, financing, and practice management.

AHOT 5236 Occupational Therapy Professional Skills II (2:1:3) Prerequisite: AHOT 5104. Introduction to key practice skills in occupational therapy.

AHOT 5300 Current Medical Diagnoses and Treatment (3:3:0) Prerequisite: AHOT 5500. Etiology, differential diagnosis, prognosis, and medical-surgical management of disorders and injuries in children and adults relevant to occupational therapy practice.

AHOT 5302 Human Neurosciences (3:3:0) Prerequisite: AHOT 5500, 5301. A study of the structure and function of the human nervous system, with emphasis on functional and clinical aspects. Study also includes the development of the central nervous system, its blood supply, sensory and motor systems, special senses, pain mechanisms, receptors and reflex pathways, and consequences of lesions of the neuraxis.

AHOT 5303 Clinical Kinesiology (3:2:3) Prerequisite: AHOT 5202. Problem-solving approach to the study of human movement, with emphasis on biomechanics fundamental to understanding physical rehabilitation concepts, musculoskeletal evaluation, and movement dysfunction. Includes posture and gait assessment.

AHOT 5304 Clinical Assessment and Reasoning (3:2:3) Prerequisite: AHOT 5312, 5104. Introduction to the evaluation process, including selection of assessment tools and methods, administration, interpretation, and documentation. Clinical reasoning as it applies to evaluation will also be discussed. Lab sessions will focus on student practice with selected assessment tools and methods.

AHOT 5306 Adaptations and Technology (3:2:3) Prerequisite: AHOT 5104. Continued study of occupational analysis and therapeutic modalities specific to occupational therapy practice. Includes study of assistive technology, prosthetics, and orthotics; and analysis and design/adaptation of the environment as a means of enhancing occupational therapy.

AHOT 5308 Psychosocial Aspects of Illness and Disability (3:3:0) Psychological diagnoses. Illness and/or disability experiences from the perspective of the individual: exploration of the psychological and social impact of illness and disability.

AHOT 5312 Occupational Therapy Professional Concepts (3:0:0) Prerequisite: AHOT 5104. Study of the profession of occupational therapy including historical and philosophical bases, professional organizations, roles and functions, standards of practice, ethics, cultural diversity, and legal issues.

AHOT 5323 Community Health (3:3:0) Prerequisite: AHOT 5421, 5423, 5425. Integration of occupational therapy into the healthcare system. Practicing professionals review current concerns affecting health care service delivery outcomes. Expansion of roles, adaptation of existing professional knowledge and appreciation for differences in cultural and social systems are emphasized. Introduction to community needs assessment process.

AHOT 5326 Health Organization Management (3:3:0) Prerequisite: AHOT 5312. Comprehensive review of social, political, economic, and technological factors influencing design, structure, and effective operation of contemporary health care organizations. Focus on applying generally accepted management and organizational theory, concepts and techniques to diagnosing internal and external dynamics of health care organizations and intervening successfully in the design of their structures and processes and the management of their performance.

AHOT 5401 Human Physiology (4:4:0) Prerequisite: AHOT 5500. Study of the normal function of the human body. The physiology of the different organ systems is presented in relationship to their anatomical, histological, and biochemical features. The physiological adaptations to stress, trauma, disease processes, and congenital defects are discussed with relevance to the clinical practices of occupational therapy.

AHOT 5421 Occupational Function/Dysfunction: Children and Adolescents I (4:3:3) Prerequisite: AHOT 5306, 5308, 5433, 5304. Overview of the physical, psychological, and cognitive issues commonly seen in infants, children, and teens, and the impact of theses conditions on occupational performance. Theories that guide pediatric practice. Focus on the occupational therapy process (including evaluation and treatment planning, with young children and their families, school-aged students and adolescents.) Includes family-centered and multidisciplinary collaborative approaches.

AHOT 5422 Occupational Function/Dysfunction: Children and Adolescents II (4:3:3) Prerequisite: AHOT 5421, 5433. Overview of the physical, psychological, and cognitive issues commonly seen in infants, children, and teens, and the impact of these conditions on occupational performance. Theories that guide pediatric practice. Focus on the occupational therapy process (including evaluation and treatment planning, with young children and their families, school-aged students and adolescents.) Includes family-centered and multidisciplinary collaborative approaches.

AHOT 5423 Occupational Function/Dysfunction: Adults I (4:3:3) Prerequisite: AHOT 5303, 5302, 5308, 5202, 5306, 5433. Overview of the physical, psychological, and cognitive issues commonly seen in adults and the impact of these conditions on occupational performance. Occupational therapy theory and practice related to this population. Focus on occupational therapy process in adult physical rehabilitation, mental health and cognitive rehabilitation settings/programs.

AHOT 5424 Occupational Function/Dysfunction: Adults II (4:3:3) Prerequisite: AHOT 5500, 5423, 5433. Continues overview of the physical, psychological, and cognitive issues commonly seen in adults and the impact of these conditions on occupational performance. Occupational therapy theory and practice related to this population. Focus on occupational therapy process in adult physical rehabilitation, mental health, and cognitive rehabilitation settings/programs.

AHOT 5425 Occupational Function/Dysfunction: Older Adults I (4:3:3) Prerequisite: AHOT 5433, 5304, 5306, 5304. Overview of the physical, psychosocial, and cognitive issues commonly seen in older adults and the impact of these conditions on occupational performance. Focus on the occupational therapy process in a variety of settings.

AHOT 5432 Occupational Function/Dysfunction: Children and Adolescents III (4:4:3) Prerequisite: AHOT 5422. Overview of the physical, psychological, and cognitive issues commonly seen in infants, children, and teens, and the impact of these conditions on occupational performance. Theories that guide pediatric practice. Focus on the occupational therapy process (including evaluation and treatment planning, with young children and their families, school-aged students and adolescents.) Includes family-centered and multidisciplinary collaborative approaches.

AHOT 5434 Occupational Function/Dysfunction: Adults III (4:3:3) Prerequisite: AHOT 5424. Continues overview of the physical, psychological, and cognitive issues commonly seen in adults and the impact of these conditions on occupational performance. Occupational therapy theory and practice related to this population. Focus on occupational therapy process in adult physical rehabilitation, mental health, and cognitive rehabilitation settings/programs.

AHOT 5436 Occupational Function/Dysfunction: Older Adults II (4:3:3) Prerequisite: AHOT 5425. Continues overview of the physical, psychosocial, and cognitive issues commonly seen in older adults and the impact of these conditions on occupational performance. Focus on the occupational therapy process in a variety of settings.

AHOT 5500 Human Anatomy (5:0:15) Study of human anatomy including integration of gross morphology of the body with the developmental and histological aspects of the human body. Human cadaver dissection is the primary lab activity.

AHOT 5931 Fieldwork II: 1 (6:0:6) Prerequisite: 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, working with individuals and groups. Introduction to clinical administration, supervision, quality assurance, consultation, and research.

AHOT 5932 Fieldwork II: 2 (6:0:6) Successful completion of all previous professional and fieldwork courses and approval of Program Director. Further 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, working with individuals and groups. Introduction to clinical administration, supervision, quality assurance, consultation, and research.

Fieldwork
Students are responsible for all costs associated with fieldwork including transportation, housing, meals, uniforms, and other incidental expenses.

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

1) Fieldwork I:1 In the spring of the second year, the student actively participates in occupational therapy as it is practiced in various settings for one week following completion of classes.
2) Fieldwork I:2 In the summer of the second year, the student actively participates in occupational therapy as it is practiced in various settings for two weeks following completion of classes. This observation may be done in local settings or, with permission, in other facilities in the Southwest with which the program has clinical education agreements.
3) Fieldwork II:1 Full-time fieldwork experience. 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. 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.

Facilities practicing occupational therapy throughout the Southwestern United States will be used for fieldwork sites. Students select sites utilizing information provided by the facilities as well as input from the Fieldwork Coordinator, considering their personal educational goals and objectives, as well as their financial and family needs. The OT Fieldwork Coordinator provides detailed information for selection procedures.
Selection of affiliation sites by students is considered a privilege. The faculty reserves the right to revoke this privilege and place the student at a specific site 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

Program in Rehabilitation Sciences

The mission for the MS in Rehabilitation Sciences is to provide master's-level education to licensed rehabilitation clinicians within the greater Texas and Southwest region. An overwhelming majority of practicing OT's and PT's in this region are educated at a baccalaureate level and would benefit from a contemporary education. The MS in Rehabilitation Sciences provides practicing clinicians the opportunity to continue their education while maintaining their current work and home environment.

The MS in Rehabilitation Sciences is not a rehash of undergraduate work, but a discussion based investigation of topics such as validated treatment methods, professional growth, practice issues, research, coding and billing, and changing rehabilitation laws. 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 toward the practicing clinicians and their specific needs in today's changing environment, utilizing a mechanism that is student friendly and effective.

PROGRAM DESCRIPTION

The MS in Rehabilitation Sciences program offers practicing professionals expanded knowledge, skills, and abilities that meet contemporary practice standards. The curriculum involves the learner as an active participant in the essential knowledge, skills, and attitudes necessary for competent practice in the workforce. Faculty will be drawn from a variety of disciplines and backgrounds within the School of Allied Health Sciences and Texas Tech University Health Sciences Center. The intent of the program is to reflect the truly interdisciplinary nature of rehabilitation and to foster advanced clinical and didactic growth applicable for today's clinician.

The goal of the MS in Rehabilitation Sciences is to offer a superior graduate level program based on evidence-based research, individualized instruction, and mechanisms for personal growth as a rehabilitative clinician. The 36 credit hour program offers two specialization tracks; Gerontology and Clinical Practice Management. The Gerontology track offers the post-graduate clinician advanced geriatric knowledge to meet the needs of a rapidly aging U.S. population. The Clinical Practice Management track offers the post-graduate clinician advanced applicable knowledge skills and competencies regarding the business-related components of rehabilitation services delivery.

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 or Occupational Therapy
- A Bachelor's or Master's Professional degree in Speech-Language Pathology
- A Bachelor's or Master's Professional degree in a Rehabilitation-related field such as Nursing, Athletic Training etc. and a background in rehabilitation
- All official college transcripts
- Current licensure within the United States (if applicable)
- Acceptable grade point average
- Supporting letters of reference

THE APPLICATION PROCESS

Applications may be submitted at anytime, however, applications are considered approximately 1 month 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.

All application materials should be sent to the Texas Tech University Health Sciences Center, School of Allied Health Sciences, Office of the Registrar, 3601 4th Street, Stop 8310, Lubbock, Texas 79430. The admissions committee will require a personal, on-campus interview of selected applicants. Applicants should understand that fulfillment of the basic requirements does not guarantee admission.

POST-PROFESSIONAL CURRICULUM

All MS in Rehabilitation Sciences courses are offered at least once every year. MS in Rehabilitation Sciences students entering the program with a bachelor's degree in OT, PT, or an approved BS in a health related field are required to complete 36 semester hours to meet degree requirements. This includes 18 hours of core class requirements and 18 hours of elective courses (either the Gerontology or Clinical Practice Management track).

CLINICAL COURSEWORK

FIRST YEAR

Fall Semester	**Course**	**Credit Hours**
AHRS 5301	Foundations of Rehabilitation	3
AHRS 5302	Social and Cultural Dimensions of Rehabilitation	3
		Total Hours = 6

Spring Semester	**Course**	**Credit Hours**
AHRS 5303	Quantitative Research Methods	3
AHRS 5304	Qualitative Research Methods	3
		Total Hours = 6

Summer Semester	**Course**	**Credit Hours**
AHRS 5305	Medical Aspects of Rehabilitation	3
AHRS 5306	The Health Care Delivery System	3
		Total Hours = 6

SECOND YEAR: CLINICAL PRACTICE MANAGEMENT TRACK

Fall Semester	**Course**	**Credit Hours**
AHRS BS 5307	Healthcare Management	3
AHRS BS 5308	Business Statistics	3
		Total Hours = 6

Spring Semester	**Course**	**Credit Hours**
AHRS BS 5309	Coding and Rehabilitation Law	3
AHRS BS 5310	Professional Development Seminar	3
		Total Hours = 6

Summer Semester	Course	Credit Hours
AHRS BS 5311	Health Care Finance and Resource Management	3
AHRS BS 5312	Market Assessment and Strategic Management in Rehabilitation-Capstone Course	3
		Total Hours = 6

SECOND YEAR: (ELECTIVE) GERONTOLGY TRACK

Fall Semester	Course	Credit Hours
AHRS GE 5313	Theory of Gerontology	3
AHRS GE 5314	Physiological Aspects of Aging	3
		Total Hours = 6

Spring Semester	Course	Credit Hours
AHRS GE 5315	Dynamics of Aging	3
AHRS GE 5316	Independent Study - Aging	3
		Total Hours = 6

Summer Semester	Course	Credit Hours
AHRS GE 5317	Issues in Aging	3
AHRS GE 5318	Aging Internship or Research (Capstone Course)	3
		Total Hours = 6

COURSE DESCRIPTIONS

AHRS 5301 Foundations of Rehabilitation-Principles and Practice (3 credits) Foundations in Rehabilitation is designed to expose the learner to the history and underlying evolution of rehabilitation. Issues associated with the evolving position that rehabilitative providers face are addressed in this course. Rehabilitative Theory and Practice 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.

AHRS 5302 Consumer Dimensions of Rehabilitation (3 credits) This course is designed to give the student an understanding of the influence of the consumer on the rehabilitation profession. The course provides an in-depth assessment of alternative products, consumer fraud, and rehabilitation practices that lack scientific merit.

AHRS 5303 Quantitative Research Methods (3 credits) This course is designed to provide the learner understanding in the basic statistical and methodological principles underlying clinical and theoretical research, and techniques and methods of conducting appropriate literature reviews.

AHRS 5304 Qualitative Research Methods (3 credits) Assists the learner in creating a clinical, outcome, or practice-based research proposal or literature review.

AHRS 5305 Medical Aspects of Rehabilitation (3 credits) This course presents current medical issues that influence the treatment decision-making model in practice. Topics such as Neurological, Cardiopulmonary, and Orthopedic Issues, discussed by physicians or medical experts are included in the coursework. The course is designed to encompass the realm of medicative side effects and condition altering situations.

AHRS 5306 The Health Care Delivery System (3 credits) This course provides the student with the basic understanding of the local and international origins, evolution, and trends in institutional and non-traditional health care delivery. Other professions are discussed in detail, as are the inner-workings of the hospital and institutional healthcare environment.

AHRS BS 5307 Health Care Management (3 credits) The course includes personnel management and the process that is involved with organizing, directing, developing, and measuring the management components of a physical medicine practice. The course includes human resource decision making, motivation and employee management.

AHRS BS 5308 Business Statistics (3 credits) This course is designed to provide the learner with the basic Excel statistical skills required in analyzing, reporting, charting and budgeting for clinical practice.

AHRS BS 5309 Coding and Rehabilitation Law (3 credits) The course is designed to provide the learner with current coding and rehabilitation practice laws. Case studies and practice analyses assist the learner in applicable digestion of the material.

AHRS BS 5310 Professional Development Seminar (3 credits) This course is designed to enhance the learner's growth through professional development. Topics include effective communication, education, professionalism, ethical issues, and health promotion.

AHRS BS 5311 Health Care Finance and Resource Management (3 credits) This course is designed to increase the learner's ability to work with finance-based equations, familiarize themselves with income statements and balance sheets, and increase their effectiveness in allocating and controlling financial resources.

AHRS BS 5312 Market Assessment and Strategic Management in Rehabilitation (3 credits) Market Assessment and Strategic Management includes the components associated with business entry, budgeting, and business progression. Entrepreneurial skills, marketing, project development, and market growth are significant components of the coursework. Industry life cycles and product life cycle reviews are critical to the class content.

AHRS GE 5313 Theory of Gerontology (3 credits) This course examines the theories related to why the human being ages. In addition to theory, a retrospective analysis of geriatric adaptation to environment influences is investigated, within a rehabilitative realm, as well as the general medical environment.

AHRS GE 5314 Physiological Aspects of Aging (3 credits) Age-related physical changes and the functional results of these changes are the hallmark of this course. Assessment and treatment considerations as well as literature regarding current break-throughs in geriatric physiology are discussed.

AHRS GE 5315 Dynamics of Aging (3 credits) An in-depth study of physiological as well as psychosocial changes that affect the aging adult in later years is the focus within this course. A holistic approach to aging, disease prevention, and health promotion will be emphasized and investigated.

AHRS GE 5316 Independent Study (3 credits) The independent study course allows the learner an opportunity to plan and construct an intervention, research project, or business plan related to aging. Though an independent study, the course requires milestone accomplishments as a precursor to the capstone course.

AHRS GE 5317 Issues in Aging (3 credits) This course focuses on public policy, legislative processes, insurance and financial planning, retirement income, protective services, and legal issues that affect older individuals. The course investigates current events related to the aging adult, using both educational and consumer based literature.

AHRS GE 5318 Aging Internship or Research (3 credits) 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.

Program in Rehabilitation Counseling

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, health care facilities, private rehabilitation firms, insurance companies, health management organizations, probation and corrections fields, educational institutions, private industry, and research organizations.

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.

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 PROFESSIONAL PROGRAM
Individuals applying to the program should already hold a bachelors 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 in the last 60 hours of 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 (MAT) 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.

THE APPLICATION PROCESS
Applications must be received by the School of Allied Health Sciences Admissions and Student Affairs Office by August 1 for Fall semester, December 1 for Spring semester and May 1 for Summer 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 website at www.ttuhsc.edu/pages/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.

PROFESSIONAL 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 5321	Vocational Assessment	3
AHRC 5322	Employment Development & Placement	3
AHRC 5345	Practice in Multi-Cultural & Rural Environments	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 (3 credit hours are required, additional elective credits are optional)

	Course	**Credit Hours**
AHRC 5310	Special Topics/Seminars in Vocational Rehabilitation	3
AHRC 5342	Rehabilitation and Substance Abuse	3
AHRC 5344	Assistive Technology	3
AHRC 5346	Psychiatric Rehabilitation	3
AHRC 5348	Life Care Planning	3

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: PROFESSIONAL CURRICULUM

AHRC 5301 Foundations of Rehabilitation Counseling (3 credits) 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 credits) 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 credits) 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 credits) 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 credits) 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 caseload 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 credits) 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 credits) 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 5315 Special Topics/Seminars in Rehabilitation Counseling (3 credits) Specialized seminars or courses in specific areas of rehabilitation counseling as identified by faculty, students, or the community.

AHRC 5321 Vocational Assessment (3 credits) 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 credits) 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 credits) 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 5346 Psychiatric Rehabilitation (3 credits) 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 5348 Life Care Planning (3 credits) This course will provide an introduction to the process of life care planning. Students will be instructed on the LCP process, ethical considerations, forensic testimony, and service delivery issues.

AHRC 5416 Clinical Internship I (4 credits) 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 credits) Supervised rehabilitation counseling internship located in a rehabilitation counseling services setting. Internship activities will include an orientation to program components, policies and procedures; an introduction to staff and their role and function; review of confidentiality and ethical standards; observation of all aspects of rehabilitation counseling services; work assignments encompassing the tasks of regularly employed rehabilitation counselors from intake to placement and/or discharge; reporting/charting and all documentation requirements as set forth by the organization, evaluation of student performance (including self-evaluation, field site supervisor evaluation, and faculty supervisor evaluation). Note: contributes towards the mandatory 600-hour clinical internship requirements as outlined for CORE accreditation and CRCC certification. (AHRC 5416 is 4 graduate credit hours; AHRC 5517 is 5 graduate hours) Courses may be repeated if the 600 hour requirement is not met, and may be taken simultaneously.

AHRC 5611 Practicum (6 credits) Supervised rehabilitation counseling practicum fostering personal growth, skills development, and insights into the rehabilitation counseling process and issues that affect service delivery. Includes both on-campus and classroom experiences (audio/videotape and individual/group interactions) and off-campus experiences in settings that facilitate the development of basic rehabilitation counseling and practice skills. This course may be repeated if the 100 hour requirement is not met. Completion of this course is a prerequisite for the internship phase of the program (AHRC 5416 and AHRC 5517).

SCHOOL OF ALLIED HEALTH SCIENCES FACULTY

AMLANI, Amyn, Assistant Professor of Speech, Language and Hearing Sciences, 2002; B.A. University of the Pacific, 1993; M.S. Purdue University, 1995; Ph.D., Michigan State University, 2003.

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.

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.

BORDER, Barbara G., Professor and Program Director of Molecular Pathology, 1993; B.A., Stephen F. Austin State University, 1974; B.S., University of Texas Southwestern Medical Center, 1977; MT (ASCP), 1977; Ph.D., University of Texas Southwestern Medical Center, 1988; CLSp (Molecular Biology), 2001.

BOSS, Jeffrey L., Assistant Professor of Occupational Therapy, 1998; B.S., Medical College of Georgia, 1985; M.S., Bowie State University, 1995.

BRISMEE, Jean-Michel, Assistant Professor of Physical Therapy, 1997; B.S., Catholic University of Louvain, Belgium, 1982; M.S., Texas Tech University, 1996.

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 and Program Director of Rehabilitation Counseling, 2001; B.A., Northeastern Oklahoma State, 1969; M.S., Oklahoma State University, 1975.

CHESTNUTT, Jacqueline, Faculty Associate and Lab Manager in Clinical Laboratory Science, 2002; B.S., Texas Tech University Health Sciences Center, 1997.

CLOPTON, Nancy Ann, Associate Professor of Physical Therapy, 1983; B.S., University of Kansas, 1970; M.S., Texas Woman's University, 1983; Ph.D., Texas Tech University, 1989.

COOK, Chad, Assistant Professor and Program Director of Rehabilitation Sciences, 1999; B.S., Maryville University, 1990; M.B.A., University of Phoenix, 1999; Ph.D., Texas Tech University, 2003.

CORWIN, Melinda D., Assistant Professor of Speech, Language and Hearing Sciences, 1994; B.S., Texas Tech University, 1987; M.S., Texas Tech University, 1989.

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.

DENNIS, Larry P. Assistant Professor and Program Director of Physician Assistant Studies, 1999. B.S., West Texas A&M University, 1971; B.S., University of Texas Medical Branch, 1975; M.P.A.S, University of Nebraska Medical Center, 1998.

ELLIOTT, Loree, Assistant Professor of Clinical Support Services Management, 2003; B.B.A., West Texas A&M University, 1990; M.B.A., Wayland Baptist University, 1995.

EVERHARDT, Nancy, Assistant Professor and Program Director of Occupational Therapy, 1999; B.S., Texas Tech University, 1968; M.Ed., Texas Tech University, 1972; M.S., Texas Women's University, 1995.

FLORES-RIVAS, Lisa, Instructor in Speech, Language and Hearing Sciences, 1999; B.S., Texas Tech University, 1993; M.S., Texas Tech University Health Sciences Center, 1996; Au.D., Texas Tech University Health Sciences Center, 2002.

GILBERT, Kerry, Assistant Professor of Physical Therapy, 1999; B.S., University of Texas, 1993; M.P.T., Texas Tech University Health Sciences Center, 1997.

GUSTAFSON, Tori J., Assistant Professor of Speech, Language and Hearing Sciences, 1993; B.S., Texas Tech University, 1990; M.S., Texas Tech University, 1992.

HAMILTON, Lynne A., Assistant Professor of Clinical Laboratory Science, 2003; B.S., Texas Tech University, 1983; MT(ASCP), 1983; M.S., Texas Tech University, 1996; Ph.D., Texas Tech University, 2002.

HEARN, Thomas W., Assistant Professor and Clinical Coordinator of Physician Assistant Studies, 2002; B.S., University of Nebraska Medical Center, 1976; M.P.A.S., University of Nebraska Medical Center, 2000.

HICKS, Candace Bourland, Assistant Professor of Speech, Language and Hearing Sciences, 2000; B.S.E., Arkansas State University, 1992; M.S., Purdue University, 1995; Ph.D., Vanderbilt University, 2000.

HOOTEN, Michael, Assistant Professor, Regional Dean of Amarillo and Program Director of Clinical Support Services Management, 1999; B.S., Texas Tech University, 1981; M.H.A., Baylor University, 1990.

HOOKER, Joan, Assistant Professor of Physical Therapy, 1999; B.S., University of Texas Southwest Medical Center, 1991; M.S., West Texas A&M University, 2002.

HUBBARD, Joel D., Associate Professor of Clinical Laboratory Science, 1990; B.S., Texas Tech University, 1976; M.T. (ASCP), Baptist Memorial Hospital (Dallas), 1977; Ph.D., Texas Tech University Health Sciences Center, 1986.

JONELY, Holly E., Assistant Professor of Physical Therapy, 2002; B.A. Midway College, 1996; M.P.T., Texas Tech University Health Sciences Center, 1999.

KELLER, Judith P., Assistant Professor of Speech, Language and Hearing Sciences and Clinical Coordinator, 1993; B.S., Texas Tech University, 1987; M.S., Texas Tech University, 1990.

KNOTTS, Valerie, Associate Professor of Occupational Therapy, 1995; B.S., University of New Hampshire, 1954; M.S. Boston University, 1983.

KARAKOSTAS, Tasos, Assistant Professor of Physical Therapy, 1999; B.S., University of Rhodes; M.S., Michigan State, 1992; Ph.D., Ohio State, 2001.

KOUL, Rajinder, K., Professor and Chair of Speech, Language and Hearing Sciences, 1994; B.Sc., University of Mysore. 1984; M.Sc., University of Mysore, 1986; Ph.D., Purdue University, 1994.

LARSEN, Hal S., Associate Dean, Chair, Department of Diagnostic and Primary Care 1987; Professor of Clinical Laboratory Science, 1989; B.S., Brigham Young University, 1970; M.S., 1973; M.T. (ASCP), Utah Valley Hospital, 1974; CLS (NCA), 1984; Ph.D., University of Nebraska Medical Center, 1980.

LE, Son M., Assistant Professor and Clinical Coordinator, 1997; B.S., Texas Tech University Health Sciences Center, 1992; M.T. (ASCP), 1992; M.Ed., Texas Tech University, 2000.

MAKRIS, Mary, Associate Professor, Program Director of Emergency Medical Services, 2000; B.S., Central Washington University, 1977; M.P.H. University of Hawaii, 1990.

MATTHEWS, Pamela, Assistant Professor of Occupational Therapy, 2001; B.S., University of Texas Medical Branch, 1975; M.S., University of Washington, 1984; Ph.D., University of New Mexico, 1999.

MEERS, Dawndra A., Assistant Professor of Occupational Therapy, 2001; B.S., Texas Tech University, 1992; B.S., Texas Tech University Health Sciences Center, 1994; M.S., Texas Women's University, 2001.

MUNGER, Larry R., Assistant Professor and Clinical Education Coordinator of Athletic Training, 2002; B.S., University of Kansas, 1995; M.S., Arizona School of Health Sciences, 1997.

PASCHALL, D. Dwayne, Associate Professor of Speech, Language and Hearing Sciences, 1996; B.A., Baylor University, 1989; M.S., University of Texas-Dallas, 1992; Ph.D., University of Texas-Dallas, 1995.

RAMEY, Kevin, Assistant Professor of Physical Therapy, 2002; B.S., University of Texas at San Antonio, 1998; M.S., University of North Texas, 2001.

REAM, Tammy, Assistant Professor of Physician Assistant Studies and Clinical Coordinator, 2002; B.S., University of Texas Southwestern Medical Center, 1992; M.P.A.S., University of Nebraska Medical Center, 2001.

RICE-SPEARMAN, Lori, Associate Professor and Program Director of Clinical Laboratory Science and Molecular Pathology, 1988; B.S. Texas Tech University Health Sciences Center, 1986; M.T. (ASCP), 1986; M.S., Texas Tech University, 1991.

ROGERS, Toby, Assistant Professor in Physical Therapy, 2002; B.S. Lubbock Christian University, 1995; M.P.T., Texas Tech University Health Sciences Center, 1998.

SANCIBRIAN, Cheryl L., Associate Professor of Speech, Language and Hearing Sciences and Program Director of Speech-Language Pathology, 1993; B.S., Texas Tech University, 1976; M.S., Texas Tech University, 1978.

SATTERWHITE, Robin, Assistant Professor and Regional Dean of Odessa, 1998; A.S., South Plains College, 1990; B.B.A., Texas Tech University, 1992; M.B.A., Texas Tech University, 1997.

SAWYER, Steven F., Chair, Department of Rehabilitation Sciences, 2003; Program Director, Master of Physical Therapy program, 2002; Assistant Professor of Physical Therapy, 1994; B.S., University of California at Irvine, 1980; Ph.D., University of California at San Diego, 1988; MPT, Texas Tech University Health Sciences Center, 1997.

SCHULTZ, Jared C., Assistant Professor of Rehabilitation Counseling, 2000; B.S., Brigham Young University, 1993; M.A., George Fox University, 1996; Ph.D., University of Northern Colorado, 2000.

SCHMITT, Mary Beth, Clinical Instructor in Speech, Language and Hearing Sciences, 2000; B.S., Texas Tech University Health Sciences Center, 1996; M.S., Texas Tech University Health Sciences Center, 1998.

SIMS, Frankie, Clinical Instructor in Speech, Language and Hearing Sciences, 1998; B.S., Texas Tech University Health Sciences Center, 1976; M.S., Texas Tech University, 1978.

SIZER, Phillip S., Program Director of Doctor of Science, Physical Therapy program, 2001; Associate Professor of Physical Therapy, 1990; B.S., University of Texas Medical Branch, 1985; M.S., Texas Tech University, 1994, Ph.D., Texas Tech University, 2002.

SMITH, L. DeAn, Instructor of Occupational Therapy, 1999; B.S., Texas Women's University, 1994; M.S., West Texas A&M University, 2002.

SMITH, Michael, Assistant Professor of Athletic Training, 2000; B.S., State University of New York-Plattsburgh, 1994; M.S., Arizona School of Health Sciences, 1997.

SPANNAGEL, Elaine, Assistant Professor of Physician Assistant Studies and Clinical Coordinator, 2003; CPAS (Physician Assistant Studies), University of Washington, 1995; MS (Advanced PA Studies), Arizona School of Health Sciences, 2003.

SPEARS, Evans, Assistant Professor of Rehabilitation Counseling, 2002; B.A. Coe College, 1991; M.A., University of Iowa, 1994.

STICKLEY, Lois A., Assistant Professor of Physical Therapy, 1996; B.S., Texas Woman's University, 1982; M.S., Texas Woman's University, 1987, Ph.D., Texas Tech University, 2002.

TATUM, Tootie, Assistant Professor of Molecular Pathology, 2002; B.S., Texas Tech University, 1994; M.S., Texas Tech University, 1997, Ph.D., University of New Mexico, 2002.

TAYLOR, LesLee, Assistant Professor and Program Director of Athletic Training, 2000; B.S., University of Kansas, 1993; M.S. University of Arizona, 1995; Ph.D., Texas Tech University, 2001.

WELLS, Jennifer, Assistant Professor of Occupational Therapy, 2002; B.S. Keuka College, 1976; M.O.T., Texas Woman's University, 1987.

WILLIAMSON, Elizabeth, Assistant Professor of Physical Therapy, 2002; B.S., University of Texas Health Sciences Center San Antonio, 1981; M.A., Texas A&M University - Corpus Christi, 1993.

ZHANG, Ming, Assistant Professor of Speech, Language and Hearing Sciences; 2001; M.D., Shanghai Medical University II, 1980; Advanced M.D., Shanghai Medical University, 1988; M.S., Shanghai Medical University II, 1988; Ph.D., University of Iowa, 1995.

INDEX