



TEXAS TECH UNIVERSITY
HEALTH SCIENCES CENTER™
School of Medicine



2010
2011

Catalog

Publication Policy

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Equal Opportunity Statement

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

School of Medicine Inquiries

All inquiries and correspondence concerning admission to the School of Medicine should be addressed to:

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School of Medicine
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School of Medicine

All inquiries regarding curriculum, advancements, and grades should be addressed to:

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Table of Contents

GENERAL INFORMATION	7
DEAN’S WELCOME.....	8
ADMINISTRATION	9
BOARD OF REGENTS	9
TEXAS TECH UNIVERSITY HEALTH SCIENCES CENTER	9
TTUHSC PRESIDENTS.....	9
ABOUT OUR SCHOOL.....	10
TTUHSC MISSION	10
TTUHSC VISION.....	10
SOM VISION.....	10
SOM GOAL	10
SOM OBJECTIVES.....	10
TEXAS TECH UNIVERSITY HEALTH SCIENCES CENTER AND LUBBOCK	11
AMARILLO CAMPUS	12
EL PASO CAMPUS	12
PERMIAN BASIN CAMPUS	12
MEDICAL STUDENTS AND THE MULTI-CAMPUS SYSTEM	12
GRADUATE MEDICAL EDUCATION (GME).....	13
ACCREDITATION	13
OFFICE OF ADMISSIONS	14
THE ADMISSIONS PROCESS.....	15
GENERAL PHILOSOPHY	15
UNDERGRADUATE COURSE REQUIREMENTS.....	16
PREREQUISITE COURSE LISTING	16
OFFICIAL ADMISSION TIMELINE RECOMMENDATIONS & REQUIRED DEADLINES	17
MEDICAL COLLEGE ADMISSION TEST (MCAT)	19
APPLICATION TO TTUHSC SOM.....	20
APPLICATION TIMELINE	21
TEXAS MEDICAL & DENTAL SCHOOLS APPLICATION SERVICE (TMDSAS).....	22
AMERICAN MEDICAL COLLEGE APPLICATION SERVICE (AMCAS)	22
TTUHSC SCHOOL OF MEDICINE SECONDARY APPLICATION.....	22
FILE EVALUATION & INTERVIEW	23
ROLLING ADMISSIONS SESSION	23
THE TEXAS MATCH	23
DEVELOPMENT OF ALTERNATE LIST (TTUHSC).....	24
MATRICULATION POLICIES	24
CRIMINAL BACKGROUND CHECK.....	24
ADMISSIONS POLICIES FOR NON-RESIDENTS OF TEXAS	25
DETERMINING TEXAS RESIDENCY	25
ESTABLISHING TEXAS RESIDENCY	26
SPECIAL CONSIDERATIONS.....	27
AAMC EARLY DECISION PROGRAM (EDP)	27
DEFERMENT OF MATRICULATION.....	27
APPLICATION FOR ADMISSION IN ADVANCED STANDING (MEDICAL SCHOOL TRANSFER)	27
OTHER DEGREE PROGRAMS.....	29

THE FAMILY MEDICINE ACCELERATED TRACK (FMAT) PROGRAM	29
THE M.D./M.B.A. DUAL DEGREE PROGRAM.....	29
THE M.D./PH.D. DUAL DEGREE PROGRAM	30
APPLICATION PROCEDURES	30
ADMISSION	30
ENROLLMENT PATTERN.....	31
RESEARCH HONORS PROGRAM	31
THE J.D./M.D. DUAL DEGREE PROGRAM	32
SPECIAL PROGRAMS (UNDERGRADUATE)	33
UNDERGRADUATE TO MEDICAL SCHOOL INITIATIVE (UMSI).....	33
UNDERGRADUATE HONORS AGREEMENTS	33
JOINT ADMISSION MEDICAL PROGRAM (JAMP)	33
TTUHSC SOM ENROLLMENT	35
OFFICIAL ADMISSIONS APPLICANT VS. MATRICULANT CHRONOLOGY (1972-2010)	36
OFFICE OF STUDENT AFFAIRS	38
MEDICAL STUDENT AFFAIRS	39
MISSION STATEMENT	39
CODE OF PROFESSIONAL CONDUCT/HONOR SYSTEM	39
STANDARDS FOR CURRICULAR COMPLETION	40
PREPARATION OF THE PHYSICIAN	40
DEVELOPMENT OF MEDICAL CURRICULUM.....	40
ABILITIES AND SKILLS REQUISITE FOR MEDICAL SCHOOL COMPLETION	41
REQUESTING ACCOMMODATIONS	42
STUDENTS WITH LEARNING DISABILITIES	43
DEFINITION	43
GUIDELINES.....	43
HEALTH INSURANCE & IMMUNIZATIONS.....	45
HEALTH INSURANCE REQUIREMENTS.....	45
IMMUNIZATION REQUIREMENTS.....	46
ACADEMIC SUPPORT SERVICES	46
GRADING.....	46
ACADEMIC PROGRESS.....	47
UNITED STATES MEDICAL LICENSING EXAMINATION (USMLE)	47
GRADUATION	47
OFFICE OF CURRICULUM	48
DOCTOR OF MEDICINE PROGRAM	49
INSTITUTIONAL EDUCATIONAL VISION, GOALS, AND OBJECTIVES	49
VISION	49
GOALS	49
OBJECTIVES	49
UNDERGRADUATE MEDICAL EDUCATION	52
EDUCATIONAL TRACKS AND JOINT DEGREES AT THE SCHOOL OF MEDICINE	52
4 YEAR PROGRAM FOR 2010 – 2011 ACADEMIC YEAR.....	53
FAMILY MEDICINE ACCELERATED TRACK	54
JOINT PROGRAMS	57
MD/MBA PROGRAM	57
MD/PHD PROGRAM.....	57
MD WITH RESEARCH HONORS PROGRAM.....	59
JD/MD DEGREE PROGRAM	60
YEAR 1 REQUIRED BLOCKS (4 YEAR AND FMAT PROGRAM).....	60

YEAR 2 REQUIRED BLOCKS (4 YEAR AND FMAT PROGRAMS)	63
FMAT SPECIFIC COURSES	64
YEAR 1 AND 2 ELECTIVES	65
YEAR 3 (4 YEAR AND FMAT PROGRAMS)	66
YEAR 4 (4 YEAR PROGRAM ONLY)	68
YEAR 4 REQUIRED ROTATIONS	68
YEAR 4 SELECTIVE ROTATIONS	68
AMBULATORY	68
CRITICAL CARE	70
SUB-INTERNSHIP	72
YEAR 4 ELECTIVE ROTATIONS	74
ANESTHESIOLOGY	74
CELL BIOLOGY	74
DERMATOLOGY	75
EMERGENCY MEDICINE	75
FAMILY MEDICINE	75
INTERDISCIPLINARY	76
INTERNAL MEDICINE	76
OBSTETRICS AND GYNECOLOGY	80
OPHTHALMOLOGY AND VISUAL SCIENCES	82
ORTHOPAEDIC SURGERY	82
PATHOLOGY	82
PEDIATRICS	84
PREVENTIVE MEDICINE	87
PSYCHIATRY	88
RADIOLOGY	89
SURGERY	90
FACULTY INDEX	93
A	94
B	94
C	95
D	96
E	96
F	97
G	97
H	97
I	98
J	98
K	99
L	99
M	100
N	101
O	101
P	101
Q-R	102
S	102
T	104
U	104
V	104
W	104
X-Y	105
Z	105

PART TIME	106
A.....	107
B.....	107
C.....	107
D.....	107
E-F.....	107
G.....	107
H.....	107
I-J.....	107
L.....	107
M.....	107
N-O.....	107
P.....	107
Q-R.....	107
S.....	107
T.....	108
U-V.....	108
W, X, Y-Z.....	108

General Information



Dean's Welcome

Steven L. Berk, M.D.
Dean of the School of Medicine



In almost every state in our country, medicine is being practiced by graduates of the Texas Tech University Health Sciences Center School of Medicine. We have an exciting story to tell... a story retold and reinvented each time a graduate makes a mark on the world.

Since 1969, we have graduated more than 2,700 physicians. Our original charter was to place more physicians in West Texas, an area of the state where many counties had none. Today, we are proud that more than 20 percent of the practicing physicians in West Texas graduated from our medical school and/or residency programs.

Our departments conduct research and foster scientific discovery that translate into better health solutions. From aging, cancer, diabetes, anesthesiology, and infectious diseases – just to name a few – the School of Medicine's strategy to enhance research programs is through supporting the faculty, students, residents, and staff with every available professional resource and expertise. A major initiative for the school is to provide quality lab space, recruit creative, innovative research faculty, and to develop graduate students and postdoctoral fellows for lifelong careers in medical research. Accomplishments during the last two years include: the renovation and construction of research space in Amarillo, El Paso, and Lubbock and continued and aggressive faculty recruitment with attractive start-up packages, and substantial increases in endowed chairs and external funding.

Texas Tech Physicians, our new region-wide practice name, is the largest group practice in West Texas with more than 450 full-time clinical faculty. The wide range of specialties and sub-specialties comprising the practice allow us to touch the lives of more than 224,000 patients each year. Expansion is underway in all of our regional facilities. In Lubbock, the new 150,000 square foot Texas Tech Physicians Medical Pavilion will open in September 2007. Design and construction of a new state-of-the-art research building is underway in Amarillo. The Permian Basin is increasing Obstetrics and Gynecology, and Internal Medicine services in the Tanglewood Facility in Midland, and the Family Medicine practice in Abilene continues to grow. Work is ongoing in El Paso to make the first four-year medical school on the Texas-Mexico border a reality.

I hope you share with me in the excitement of the many changes and positive efforts being made to make the School of Medicine a premier place to work, study, and receive the latest medical care and treatment in West Texas!

Administration

Board of Regents

Larry K. Anders, Chair

Daniel “Dan” T. Serna

Jerry E. Turner, Vice Chair

John Huffaker

L. Frederick “Rick” Francis

Mickey L. Long

John F. Scovell

Nancy Neal

Texas Tech University Health Sciences Center

Kent R. Hance, Chancellor

Steven L. Berk, M.D., Vice President for
Medical Affairs and Dean, School of Medicine

Tedd Mitchell, M.D., President for the Health
Sciences Center

Chip Shaw, Ed.D., Vice President for
Information Technology & CIO

Elmo Cavin, Executive Vice President Finance
and Administration

Germán R. Núñez, Vice President for Diversity
and Multicultural Programs

Douglas M. Stocco, Ph.D., Executive Vice
President for Research

Rial Rolfe, Ph.D., M.B.A., Associate Vice
President for Academic Services

Billy U. Phillips, Jr., Ph.D., Vice President for
Rural and Community Health

TTUHSC Presidents

Grover Elmer Murray (1966-1976)

David Smith (1996-2002)

Maurice Cecil Mackey (1976-1979)

M. Roy Wilson (2003-2006)

Lauro Fred Cavazos (1980-1988)

John C. Baldwin (2007-2009)

Robert Lawless (1988-1996)

Tedd Mitchell, M.D. (2010-Present)

About Our School

TTUHSC Mission

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

The Texas Tech University Health Sciences Center fulfills its higher education mission by achieving the following Institutional Goals:

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

TTUHSC Vision

Texas Tech University Health Sciences Center will be recognized nationally as a top-ranked health sciences university.

SOM Vision

Graduates of the TTUHSC-SOM will be knowledgeable, competent, and compassionate health professionals who work diligently to improve the health of the public.

SOM Goal

The Texas Tech University Health Sciences Center School of Medicine will graduate physicians who deliver patient-centered care as members of an interdisciplinary team, emphasizing evidence-based practice, quality improvement approaches, and informatics.

SOM Objectives

To accomplish our goal, the Texas Tech University Health Sciences Center School of Medicine has identified key objectives for our program that address the knowledge, skills, behaviors, and attitudes needed for students to acquire the degree of Doctor of Medicine. These objectives are designed to ensure that students acquire the six core competencies described by the Accreditation Council for Graduate

Medical Education: patient care, medical knowledge, practice-based learning and improvement, interpersonal and communication skills, professionalism, and systems-based practice. Each block, clerkship and rotation sets forth specific learning objectives and their outcome measurements based on these key educational objectives. The School of Medicine will continue to review these objectives and revise as needed to ensure that the vision and goals are met.

Texas Tech University Health Sciences Center and Lubbock

The Texas Tech University Health Sciences Center School of Medicine was created by the 61st Texas Legislature in May 1969, as a multi-campus regional institution with Lubbock as the administrative center and with other regional campuses at Amarillo, El Paso, and Odessa. The lack of a single focus of population density dictated the regionalization of medical education in West Texas, which comprises 48% of the landmass of the state and encompasses 12% of its population. The School of Medicine is one of five schools in the Health Sciences Center. The other four being the Schools of Nursing, Allied Health Sciences, Pharmacy, and the Graduate School of Biomedical Sciences. All five schools are committed to regionalized, multi-campus educational experiences.

The School of Medicine formally opened in August of 1972 with a first-year class of 36 and a third-year class of 25 students. The Texas Tech University Health Sciences Center was established in 1979, eventually ushering in the Schools of Allied Health, Nursing, Biomedical Sciences, and Pharmacy. From 1980 to 1994, the school accepted 100 first year students for a total of 400 in the student body. In 1993, class size was increased by the Texas State Legislature to 120 in each first year class beginning with the class entering in the fall of 1994. In 2000, the Legislature approved a class increase to 200; however, a smaller class size of 140 has been maintained through the entering year 2005. Primary consideration is given to residents of Texas and the contiguous counties of New Mexico and western Oklahoma. Other out-of-state applicants may be considered on an individual basis if they have outstanding academic credentials.

The school has as its major objectives the provision of quality medical education and the development of programs to meet appropriate health care needs of the 108 counties of West Texas. The school has a full-time faculty of 574 with 48 part-time faculty and 891 volunteer faculty.

The goal of populating West Texas with physicians is currently being achieved with 20% of the region's doctors having been trained at the Texas Tech University Health Sciences Center. TTUHSC is currently expanding even further, with the October 2003 legislation that approved a four-year medical school in El Paso. The goal of the School of Medicine, however, has yet to be reached. The region is still severely underserved in certain sections of the service area despite the presence of the HSC health care institutions scattered throughout the region. This is why special attention is paid to applicants who are from the West Texas.

Lubbock offers clinical experiences at University Medical Center, Covenant Medical Center, Veterans Administration Outpatient Clinic, Garrison Geriatric Care Center, and the Montford Psychiatric Prison Hospital. In January 2004, the Texas Tech University Health Sciences Center Academic Classroom Building was opened in Lubbock. The facility includes two large state-of-the-art auditoriums, along with a new histology laboratory that is also designed for computer-based curriculum. In 2007, a new 150,000 square foot medical pavilion was opened housing the ambulatory clinics for six specialties with plans for continued expansion and development.

Amarillo Campus

The Amarillo campus began in 1972 with the forming of the medical school in Lubbock. Elective rotations for students were performed in space borrowed from the Northwest Texas Hospital and the VA Medical Center. In 1975, the Amarillo HSC established its own permanent location. In 1978, the first medical school class of five students entered the Amarillo campus. That number has steadily risen to 65 third- and fourth-year students in September 2006. In Amarillo, clinical education is provided in area hospitals and health care facilities. These include Northwest Texas Hospital, Baptist St. Anthony Hospital, Don and Sybil Harrington Cancer Center, the Psychiatric Pavilion, and the Veterans Administration Hospital of Amarillo.

El Paso Campus

In the Fall of 2008, the Paul L. Foster School of Medicine in El Paso began accepting applicants for the Entering Year 2009 class. Third and fourth year medical students from the Lubbock campus will continue to train in El Paso until 2011.

Permian Basin Campus

The Permian Basin (Odessa) campus was established in 1979 and serves as a resident training facility for the Permian Basin and surrounding communities in Family and Community Medicine, General Surgery, Internal Medicine, Obstetrics/Gynecology and Geriatrics. In the Midland-Odessa area, clinical sites are Medical Center Hospital (Odessa) and Memorial Hospital (Midland).

Medical Students and the Multi-Campus System

The first two years are offered on the Lubbock campus, contiguous with Texas Tech University. The recreational and cultural resources of the University are available to the medical students. For clinical studies, each class is currently divided with approximately 40-50 students in Amarillo, 50-60 students in Lubbock, and 20-30 students at the Permian Basin Campus.

Assignments to the regional campuses are based to the extent possible on a random lottery such that each student will have equal opportunity to be assigned to any of the three campuses. At the beginning of the first year, there is an active orientation program that includes time with students with representatives from the respective regional campuses to which each student has been assigned.

At each regional center, clinical students in their third-year rotate through the basic clinical clerkships in Internal Medicine, Surgery, Obstetrics/Gynecology, Psychiatry, Pediatrics, and Family Medicine. The students are provided a diverse experience in community hospitals and in the School of Medicine's ambulatory clinics. In the fourth year, students may take elective experiences at any of the regional campuses and at other institutions.

The educational program at each regional center is comparable as indicated by the number and types of patients seen by students and by student performance on measures such as National Board of Medical Examiners subject exams, oral examinations, departmental examinations, and clinical ratings by faculty.

The goals of these programs are to develop competent, compassionate, professional physicians who provide the highest quality of care for the citizens of West Texas and beyond, who participate in scholarly activity, and who provide academic and community leadership. To assure the best possible education, the School of Medicine holds all programs to high academic and professional standards. These standards include those promulgated by the Accreditation Council for Graduate Medical Education and the American Board of Medical Specialties.

Graduate Medical Education (GME)

In addition to the four-year curriculum leading to the M.D. degree, the Texas Tech University Health Sciences Center School of Medicine provides graduate training on all four campuses (Amarillo, El Paso, Lubbock, and Odessa). The specialty (residency) programs include Anesthesiology, Dermatology, Emergency Medicine, Family Medicine, Internal Medicine, Obstetrics & Gynecology, Ophthalmology, Orthopaedic Surgery, Pathology, Pediatrics, Psychiatry, Surgery, Transitional Year, and Urology. The sub-specialty programs (fellowships) include Pain Management, Cardiology, Geriatrics, Sports Medicine, and Nephrology.

For the latest detailed information on Texas Tech University Health Sciences Center residency programs, visit: <http://www.ttuhscc.edu/som/gme>

Accreditation

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

Office of Admissions



Kim Peck, M.D., Associate Dean of Admissions and Minority Affairs

Linda Prado, Director of Admissions

Louis Perez, Assistant Director of Admissions

Irene Chavez, Assistant Director of Recruitment and Special Programs

Location: 2B116

Mail Stop: 6216

Phone: 806.743.2297

Fax: 806.743.2725

Web: <http://www.ttuhsc.edu/som/admissions>



The Admissions Process

General Philosophy

Texas Tech University Health Sciences Center School of Medicine invites applications from qualified residents of the state of Texas and the adjacent counties of eastern New Mexico and southwestern Oklahoma that comprise the service area of the Health Sciences Center. Out-of-state residents will be considered on an individual basis. Only 10% of the class can be from out of state, so an applicant should have competitive academic credentials to apply (e.g. 3.6 overall GPA or higher and an MCAT score of 30 or higher). With the limit of 10% of each class coming from out of state applicants, we will not accept applications from international students or students attending undergraduate institutions in the US who are not permanent residents of the US. One hundred forty-four students are selected for each entering class. This total includes M.D./M.B.A., M.D./Ph.D., AAMC Early Decision, Joint Admission Medical Program, and Special Undergraduate Honors Agreement students. The Admissions Committee carefully examines each application for the personal qualities and proven academic ability to determine potential as an effective and competent physician. If all other qualifications are equal, some consideration may be given to individuals with ties to the West Texas region. While evidence of high intellectual ability and a strong record of scholastic achievement are vital for success in the study of medicine, the Admissions Committee recognizes as essential the qualities of compassion, motivation, maturity, personal integrity, and the ability to communicate effectively as traits of the consummate physician. Letters of evaluation from pre-professional advisors and/or physicians are also considered, and the ability to balance academic achievement with extracurricular and/or work activities is examined. Those applicants who possess both the cognitive and non-cognitive traits that indicate likelihood of academic and professional success are invited for personal interview. There is no discrimination on the basis of race, color, religion, age, sex, national origin, disability or veteran status. In 1997, legislation established that evidence of a financially or educationally disadvantaged background of an applicant may be considered in the total evaluation of the application. In 2003, the U.S. Supreme Court upheld the position maintained by applicants to the University of Michigan that race and national origin/ethnicity may be considered among other criteria for admission purposes in order to obtain diversity in its student body. *Grutter v. Bollinger*, 539 U.S. 306,327, 156 L. Ed. 2d 304 123 S. Ct. 2325 (2003).

Therefore, at Texas Tech University Health Sciences Center, the Admissions Committee considers such factors as race/ethnicity in addition to many other factors, including first generation college graduate,

multilingual proficiency, socio-economic background while attending elementary/secondary school, responsibilities while attending school such as employment or assisting in the care of brother/sisters, community involvement as well as other life circumstances.

In summary, a number of both cognitive and non-cognitive factors are used in the evaluation of applicants to medical school. No single factor is used exclusively to admit or to eliminate admission of an applicant to medical school at Texas Tech. The Committee examines each applicant for overall suitability, and it makes an effort to select a class of 144 individuals with varied backgrounds, interests, and life experiences resulting in a stimulating and broadening learning environment within the medical curriculum.

Undergraduate Course Requirements

At least three years of study (90 semester hours or the equivalent in quarter hours) from an accredited United States or Canadian college or university are required. A baccalaureate degree is required.

Course work from non-U.S. or Canadian schools will be accepted only if it appears, with a grade, on the transcript of a U.S. or Canadian college or university as an individual course. "Lump sum" credit is not acceptable. All prerequisite courses for medical school must have been taken for credit at an accredited U.S. or Canadian college or university.

Specific course requirements have been kept at a minimum to allow and encourage the student to have a broad and well-rounded education. There are no specific requirements for undergraduate majors or minors. The Admissions Committee reviews the academic challenge provided by course selection and gives preference to students with a broad educational background.

Prerequisite Course Listing

Required Courses	Duration	Semester Hours
General Biology or Zoology	1 year	6
Upper Division Biology	1 year	6
Biology Labs		2
General Chemistry	1 year	6
General Chemistry Labs		2
Organic Chemistry	1 year	6
Organic Chemistry Labs		2
Physics	1 year	6
Physics Labs		2
English	1 year	6
Statistics as offered by Math Dept. <i>OR</i> Calculus	½ year	3

Pre-requisite courses must be completed by the time the applicant matriculates into medical school, not necessarily when the application is made. It is in the best interest of the applicant to have completed as many of the prerequisite courses as possible, however.

Proficiency in verbal and written communication is essential. A basic knowledge of conversational Spanish is desirable, but is not required.

Official Admission Timeline Recommendations & Required Deadlines

Date	Classification	Description
Year 1		
Fall	Freshman	<ul style="list-style-type: none"> • Focus on grades, take no more than 15 hours of coursework • Research and begin prerequisite courses: Chemistry, Biology, Physics, etc. • No MCAT preparation • Little or no health care exposure • Join a premedical organization or society
Spring	Freshman	<ul style="list-style-type: none"> • Focus on coursework, but begin weekly healthcare exposure
Summer	Freshman/New Sophomore	<ul style="list-style-type: none"> • Continue with coursework • Taking pre requisites during summer is not recommended • Focus on health care exposure
Year 2		
Fall	Sophomore	<ul style="list-style-type: none"> • Focus on academics, prerequisites • Continue healthcare exposure • Establish solid relationships with mentors, professors, MDs, or other supervisors that could write Letters of Evaluation
Spring	Sophomore	<ul style="list-style-type: none"> • Begin researching medical schools, fees, towns of the schools • Begin research into formal MCAT preparation courses • Continue to focus on academics, healthcare exposure
Summer	Sophomore/New Junior	<ul style="list-style-type: none"> • Explore possible research opportunities, premedical academies, or other scientific internships • Take summer school courses if needed (not prerequisites) • Focus on healthcare exposure if no internship presents itself

Date	Classification	Description
Year 3		
Fall	Junior	<ul style="list-style-type: none">• Begin composing of personal statement for medical school application• Approach prospective letter of evaluation writers and seek feedback on performance under their supervision• Revisit degree plan to make sure nothing is missed• Sit down with pre-medical advisor to confirm status, receive guidance• Maintain good grades• Commence MCAT preparation (if Organic Chemistry I and Physics I have been completed)• Explore and prepare application for premedical academies
Spring	Junior	<ul style="list-style-type: none">• Visit prospective medical schools• Continue preparations for summer internship applications• Prepare mentally, financially, logistically, for medical school application / interviewing season• Application for Texas State medical schools opens May 1• Early submission of application is recommended for prime interviewing opportunity• Remain active with premedical / service organizations• It is recommended that the spring administration of MCAT is taken
Summer	Junior/Early Senior	<ul style="list-style-type: none">• Attend summer premedical camp / academy (if applicable)• Submit medical school applications, (main and secondary applications)• Attend summer school to catch up with coursework (if applicable)• Texas medical school interviews typically begin early to mid-August

Date	Classification	Description
Year 4		
Fall	Senior	<ul style="list-style-type: none"> • Continue preparations for medical school interviews • Maintain grades • Continue with healthcare exposure
Spring	Senior	<ul style="list-style-type: none"> • Submit rank list of medical schools where interviewed. Due January 15 • “Match Day,” the day when students discover where they will be going to medical school is Feb. 1 (Note: non-residents, special programs acceptances begin October 15. Also, note that the TMDSAS medical schools begin rolling admission Nov. 15) • Maintain grades and course schedule in order to graduate on time. • (If not accepted) Sit down with premedical advisor and develop a plan as to improve application for next interview season. It is not recommended to wait to start doing this after mid-March.
Summer	NA	<ul style="list-style-type: none"> • (If Accepted) Travel, do some extracurricular activities • Prepare to move to respective medical school • Medical school classes begin early August

Medical College Admission Test (MCAT)

Completion of the Medical College Admission Test (MCAT) within 5 years of matriculation is a requirement for admission. The Admissions Committee recommends that the test be taken in the spring of the year in which application will be made. Registration information may be obtained from:

MCAT Office
 Association of American Medical Colleges
 2450 N Street, NW
 Washington, DC 20037-1127
 (202) 828-0690
mcat@aamc.org
<http://www.aamc.org/students/mcat/start.htm>

Application to TTUHSC SOM

In order for an applicant's file to be reviewed for a prospective interview, all aspects to the application must be submitted, received, and processed by the Office of Admissions. This process can take 4-6 weeks if everything required is submitted at the same time to the Texas Medical and Dental School Application Service (TMDSAS). Eight of the nine Texas medical schools, the three dental schools and the veterinary school have developed a common application, administered and processed through the TMDSAS, currently based out of Austin. Remember, TTUHSC also has a secondary application which must be completed by all applicants.

The following elements must be received by the Office of Admissions in order to constitute a complete application:

Required Elements

Main, TMDSAS Application	Submitted electronically. http://www.utsystem.edu/tmdsas/
Main, AMCAS Application NOTE: Required for MD/PhD applicants only.	Submitted electronically. http://www.aamc.org/students/amcas/start.htm
TTUHSC SOM Secondary Application, \$50 application fee.	Submitted electronically. Please visit the Office of Admissions website (http://www.ttuhsoc.edu/som/admissions) and link to the Secondary Application on the left navigation pane.
Letters of Evaluation	All letters declared by the applicant on the TMDSAS application must be received. AMCAS applicants must submit declared letters through the AMCAS application.
MCAT Scores	No more than 5 years old from the time of the expected date of matriculation.
All other required information in the way of supporting documents.	This can include proof of Texas / U.S. residency (if applicable) Supporting documents does include all transcripts from all schools attended, submitted to TMDSAS.

Application Timeline

The Fall of 2006 marked the beginning of a new application process for the Texas medical schools with the exception of Baylor College of Medicine.

Medical School Application Dates

May 1	Applications become available; medical school secondary applications become available
Early to Mid-June	Texas Tech HSC SOM receives first batch of submitted applications; file evaluations begin
Early August	Interview offers initiated; interviewing season begins at TTUHSC SOM
October 1	Application Deadline
November 15	Rolling Admissions Session begins; open acceptance period to applicants
December 31	Rolling Admissions Session ends; interviewing season at TTUHSC SOM ends
January 15	Deadline for applicants holding multiple seats to declare desired school
January 15	Deadline for applicant preferences and school rank lists even if accepted by school(s) during the rolling admission period
February 1	Texas Medical School Match Day; all remaining applicants learn about matching to a medical school or not
February 2	Rolling Admissions Session 2 begins; alternate list formulated at TTUHSC SOM
Early August	Rolling Admissions Session 2 ends as the first year medical student class orientation begins; previous admissions season is official concluded.



Texas Medical & Dental Schools Application Service (TMDSAS)

Applications will be available beginning May 1 of the year of application and are due no later than October 1. This deadline includes all supporting documents as well. (Letters of evaluation, transcripts, etc.) The main application can be accessed and submitted on the web from the Texas Medical and Dental Schools Application Service (TMDSAS). The TMDSAS application fee should be mailed to the Application Service office. In addition, official transcripts and letters of recommendation should be sent to the Application Service office. TMDSAS also requires other logistical elements to be submitted. Please visit the TMDSAS website to learn more.

The Texas State application and more information on general requirements is available at the following URL:

TMDSAS application: <http://www.utsystem.edu/tmdsas>

American Medical College Application Service (AMCAS) (M.D./Ph.D. Applicants only)

The AMCAS application is required for applicants to the M.D./Ph.D. program only. All other applicants to the Texas Tech University Health Sciences Center School of Medicine are required to apply through TMDSAS. Applications will be available beginning May 1 of the year of application and are due no later than October 1. This deadline includes all supporting documents as well. (Letters of evaluation, transcripts, etc.) Letters of evaluation should be submitted through the main application. The main application can be accessed and submitted on the web from the American Medical College Application Service (AMCAS). The AMCAS application fee should be mailed to the Application Service office. In addition, official transcripts should be sent to the Application Service office. AMCAS also requires other logistical elements to be submitted. Please visit the AMCAS website to learn more.

The AMCAS application and more information on general requirements is available at the following URL:

AMCAS application: <http://www.aamc.org/students/amcas/start.htm>

TTUHSC School of Medicine Secondary Application

TTUHSC School of Medicine also requires a Secondary Application. This application can be accessed and submitted on the web. All applicants applying to the Texas Tech University Health Sciences Center School of Medicine are required to submit a completed Secondary Application. Applicants applying to multiple programs are only required to submit one single Secondary Application. For example, an applicant applying to the M.D/Ph.D. program through AMCAS and the M.D. program through TMDSAS is only required to submit one Secondary Application. For more information, including Secondary Application instructions, please visit the address below.

Secondary application: <https://www.ttuhsoc.edu/som/admissions/secondaryapp/>

Note: There is a \$50 application fee that may be submitted online through the Secondary Application or mailed as a check/money order. If you elect to pay by check/money order, please send payment, payable to: TTUHSC SOM.

File Evaluation & Interview

(June 9 ~ December 20)

Each completed application will be reviewed by Admissions Officers and personal interviews will be offered to those students deemed most competitive for admission. All interviews are conducted at the Lubbock campus.

On the day of the interview, there is also an opportunity to tour the medical school, talk with students, and sit in on classes if desired. Each applicant, who has been sent an interview invitation, and is applying through the regular MD program, is given two (2), 30-minute interviews. M.D./M.B.A., J.D. / M.D., and M.D./Ph.D. invited applicants are given three (3) interviews, two (2) for the medical school, and one (1) from the Texas Tech University Rawls College of Business OR the TTUHSC Graduate School of Biomedical Sciences (GSBS), respectively. Additional interviews may be scheduled for dual degree applicants.

After the interviews, the Admissions Committee considers the applicant's overall academic record, grade trends, healthcare exposure, extracurricular activities, MCAT results, pre-professional evaluations, impressions of interviewers, and any other pertinent information. Any applicant who is offered an acceptance to medical school has two weeks in which to accept or decline the offer in writing.

Rolling Admissions Session

(November 15 – December 31)

Beginning in the Fall of 2006, the Texas medical schools offered a dual rolling admissions / match system. During the rolling admission period, a medical school can make an offer of acceptance to any Texas Resident applicant who has interviewed. An applicant can potentially receive offers from multiple medical schools during this period. Texas Tech University HSC School of Medicine will be very proactive in recruiting desired applicants during this period.

On December 31, the rolling admissions process is suspended. All applicants holding multiple acceptances must formally decide on the medical school they prefer to attend from among offers received during rolling admissions no later than January 15th. These applicants must also formally withdraw from any other TMDSAS medical schools where they had an offer (withdraw notification, in writing.)

The Texas Match

(January 15 – February 1)

Texas Tech University HSC School of Medicine participates in the match with the other Texas Schools listed on the application form. The Match system in which Texas Tech University HSC has participated since 1999 will continue. All interviewed applicants, whether they have been accepted to a Texas medical school (TMDSAS) during the Rolling Admission Session or not, will enter into the Match. It is important to understand that an applicant does not give up his/her place in a medical school where he/she received an offer during the rolling admissions session (except for those from which the applicant withdrew prior to the match). Interviewed applicant preference lists and medical school rank lists are due on January 15. “Match Day”, the day where interviewed applicants find out about their status, will be February 1. Results of the Match will be listed on the web (at TMDSAS & TTUHSC SOM) and acceptance letters mailed February 1.

The actual match works as follows:

Each interviewed applicant will rank his/her preference of schools via the web at the TMDSAS website. The preference list may be submitted and the rank order may be changed at any time until the deadline date on January 15. The last preference submitted prior to the deadline date will be used in the matching process.

- Interviewed applicants must submit at least one preference ranking to TMDSAS.
- Each medical school will also submit a list of interviewed applicants ranked in order of acceptability on the basis of factors considered in the selection process by TTUHSC SOM.
- The final preference from each applicant and the ranked lists from the respective schools are entered into a computer database. The database matches the applicant with the highest choice medical school that ranked the applicant high enough to be selected.
- Applications are automatically withdrawn from all schools with a lower applicant preference than the school to which the applicant is matched.
- Applications will remain active to all schools with a higher applicant preference for possible acceptance later if the applicant is placed on the school's alternate list.
- For more information on the Texas State Match, please visit the TMDSAS website.

Development of Alternate List (TTUHSC)

(February 2 – Early-August)

Sometime after the Match, the Director and Associate Dean of Admissions, in consultation with the Dean of the School of Medicine, will formulate an official “alternate list” from interviewed applicants that remain available even after the rolling admission session, and after the February 1st match. In the event an accepted applicant gives up his/her seat in the class, a replacement will be selected from the alternate list. The applicants selected for the alternate list are not placed in a rank order. Applicants may be selected from the alternate list up until the beginning of orientation at TTUHSC SOM.

Matriculation Policies

Criminal Background Check

In order to provide a safe environment for patients, visitors, faculty, employees, and students at TTUHSC, the conduct of criminal background checks was instituted as of September 1, 2006. Compliance with this policy will be required of all prospective medical students. Criminal background checks (CBCs) allow the university to evaluate whether TTUHSC students are qualified, eligible, and possess the character and fitness to participate in clinical care and/or clinical rotation sites at TTUHSC or participating institutions.

Therefore, per the TTUHSC Operating Policy and Procedure 10.20, in order to complete matriculation to the TTUHSC SOM, all prospective matriculants will submit a background check, through a prescribed vendor, to the TTUHSC Office of the Registrar. Refusal to complete the self-disclosure/criminal background check will preclude the student from admission and matriculation. All criminal history provided is confidential and shall be protected from disclosure to the greatest extent provided by law. It must be noted by the applicant, that matriculation will be completed only after receipt and review of the

release form, self-disclosure information, and receipt of the subsequent background check record indicating no criminal history, unless otherwise indicated. Where a record of criminal history exists, each prospective matriculant will be evaluated individually, and recommendations for enrollment or withdrawal/revocation of acceptance/admission will be made by the School of Medicine.

Admissions Policies for Non-Residents of Texas

Non-resident applicants to the participating TMDSAS Texas schools are not subject to the Texas Match. Acceptance of non-resident, interviewed applicants begins October 15th.

Texas Tech University HSC School of Medicine is a Texas state school and is required by law to have 90% of the entering class made up of qualified Texas residents.

Determining Texas Residency

Applicants to TTUHSC SOM must be a Texas resident at the time of application to be eligible for admission as a Texas resident. If however, reclassification as a Texas resident occurs after the deadline of the application but before matriculation into medical school, the applicant will be admitted as a Texas resident.

As stated by the Texas Higher Education Coordinating Board Rules & Regulations for Determining Residency Status:

If an applicant is a dependent (of parents, etc.)

- a. The residency of the parent who has custody at the time of application if parents are divorced;
- b. The residency of the parent who has claimed the individual as a dependent for Federal Income Tax purposes both for the year in which the individual is applying and for the preceding tax year; OR
- c. The residency of the parent with whom the individual has resided for the 12-month period preceding application to medical/dental school.

To qualify as a Texas resident for application purposes, an independent individual 18 years of age or over who has come from outside Texas must reside in Texas and be gainfully employed for a 12-month period preceding the date of application to medical-dental school. Evidence must also be provided that the 12-month residence was for the purpose of establishing residence in the state and not for the purpose of attending an educational institution.

An individual 18 years of age or over who resides out of the state or who has come from outside Texas and registers in an educational institution before having resided in Texas for a 12-month period shall be classified as a nonresident student and will remain a nonresident as long as the residence of the individual in Texas is primarily for the purpose of attending an educational institution.

(Texas Higher Education Coordinating Board Standing on Foreign Student Residency)

Only those foreign citizens who are living in this country under a visa permitting permanent residence of who are permitted by Congress to adopt the U.S. as their domicile while they are in this country or have

filed a declaration of intention to become a U.S. citizen are eligible to be classified a Texas resident if they have otherwise met the requirements for establishing residency.

Military personnel stationed in Texas are considered non-residents unless:

- a. The member was a Texas resident upon entry into the service and Texas continues to be his/her state of legal residence while in the military.
- b. The member abandoned his/her prior state of residency and established a domicile in Texas at least 12 months before applying to medical/dental school and the member has otherwise met the requirements for establishing residency.

A residence questionnaire MUST be filed if the state of residence has been changed while in the military.

Residency can change during the application period. All schools are notified at the time a change of residency occurs. Tuition is based upon residence status at the time of registration.

If Texas residency is questionable, it is necessary to complete a Residence Questionnaire so that proper residency may be determined. A copy of the Questionnaire may be obtained from the Texas Medical & Dental Schools Application Service (TMDSAS). A formal medical school application must be submitted to TMDSAS before the questionnaire will be processed. A final determination of residency will be sent to the applicant and the schools to which the applicant has applied.

The complete Rules and Regulations for determining residency published by the Texas Higher Education Coordinating Board may be found at <http://www.collegefortexans.com/residency>.

Establishing Texas Residency

Under Texas state law, an applicant or enrolled student is classified as either a resident of Texas, a nonresident, or a foreign student. Residency for admission and tuition purposes at a public college or university in Texas is different from residency for voting or taxing purposes.

To qualify as a Texas resident, an individual who is a U.S. citizen or permanent resident immigrant must live in Texas for at least 12 consecutive months without attending any institution of higher education. Registration in a college or university in Texas during this 12-month period is interpreted under law as demonstrating only an intention to make use of the state's higher education system, and not an intention to establish domicile in Texas. An applicant or student who is claimed as a dependent on a parent's most recent federal income tax return will be classified based on the parent's qualification for residency. International students eligible to establish legal domicile in Texas may also qualify for Texas resident status.

An individual's residency classification is based on information from his or her admission application. If an applicant or student is classified as a nonresident and wishes to be reclassified as a resident, it is necessary to submit a Residency Questionnaire form, which provides more detailed background information than is available from the admission application.

The Residency Questionnaire can be obtained via the TMDSAS website:
<http://www.utsystem.edu/tmdsas>

Special Considerations

AAMC Early Decision Program (EDP)

The school does have a program whereby exceptionally well-qualified students can receive a decision on their applications by September 15 in the year prior to matriculation. Applications from individuals requesting Early Decision must be completed by August 1, and interviews will be set up shortly thereafter. A person who applies for Early Decision commits to apply only to Texas Tech School of Medicine prior to September 15 and commits to matriculate at Tech if the position is offered. Applicants will be notified of the Committee's decision on or before September 15. If an individual is not accepted under the Early Decision Program plan, that applicant will still be considered in the regular applicant pool at Texas Tech and may also then apply to any other medical schools. Early Decision applicants to TTUHSC SOM must have taken the MCAT and must be a Texas resident.

Deferment of Matriculation

Under extenuating circumstances, an applicant who has been accepted for enrollment in the fall may request, in writing, deferment until the following fall. Such request will be considered by the Associate Dean of Admissions and may be granted for a period not to exceed one year. During the year of deferment, the student may not make application to any other medical school.

Application for Admission in Advanced Standing (*Medical School Transfer*)

Applications for advanced standing are reviewed and considered on an individual basis. Texas residents enrolled in good standing in LCME – accredited U.S. or Canadian medical schools are eligible to apply. Such applicants must have written permission from their Dean of Student Affairs for possible transfer; may be interviewed before acceptance; and must have taken and passed Step I of the United States Medical Licensing Examination (USMLE-I) as conditions for acceptance in advanced standing.

The guidelines and criteria for advanced standing admission and the transfer application are available at: http://www.ttuhsoc.edu/som/admissions/adv_admiss.aspx

All applicants for advanced standing must be bona fide Texas residents with at least 90 hours of undergraduate study in an accredited U.S. or Canadian college or university. The TTUHSC School of Medicine does not accept transfer applications from students or graduates of schools not accredited by the Liaison Committee on Medical Education (LCME). The applicant must have completed the second year of medical school. Advanced placement into the fourth year is not considered. Applicants from related fields such as dentistry, or those who have taken medical basic science courses as a graduate student, may be considered on an individual basis, but may be required to apply as a first year student regardless of the degree field. A student, who has been dismissed from, or has withdrawn from another medical school, is not eligible for consideration unless the former school indicates in writing its willingness to reconsider the student for admission. A completed application and filing fee of **\$50.00** must be received by no later than May 1st. Official transcripts from all undergraduate colleges, graduate schools, and medical schools must

School of Medicine

be submitted. A letter of recommendation and evaluation must be submitted by the Dean of the school where the applicant is currently enrolled.



Other Degree Programs

The Family Medicine Accelerated Track (FMAT) Program

For those students interested in pursuing a career in Family Medicine, TTUHSC School of Medicine now offers an innovative curriculum that allows for completion of the M.D. degree in 3 years. The FMAT Program is 6 years total with the students proceeding directly into one of TTUHSC's Family Medicine Residency Programs after completion of the 3 year M.D. curriculum. The F-MAT program will offer students a seamless transition between their pre-doctoral and residency training settings and curricula as they spend two years in Lubbock, followed by at least 4 years on the campus (Amarillo, Lubbock, or Permian Basin) where they will complete both the final year of medical school and three years of family medicine residency training. Ten students will be chosen from each TTUHSC School of Medicine first year class and will be notified of their selection early in the second semester of first year. Preference will be given to students with expressed interest in Primary Care/Family Medicine, academic performance (including grades from fall semester of year 1 placing the student in the top 50% of the class), as well as interviews with members of the FMAT faculty.

Web: <http://www.ttuhschool.edu/som/fammed/fmat/fmathome.aspx>

The M.D./M.B.A. Dual Degree Program

In this joint degree program, the student will receive both M.D. and M.B.A. degrees within the four years of medical school. The intent of this program is to produce outstanding physicians with additional insight into the intricacies of health care management systems, finance, economics and delivery. With this educational background, physicians will have an advanced business background to use as they develop medical practices or as they begin careers in management for major health care organizations.

In the program structure, students will complete the 48-hour M.B.A. program in 24 months, including the summers before and after the first-year medical school curriculum. This is possible due to course offerings in-class and online, and courses that are taught in an accelerated seven week format. The flexibility of the program allows for the student to complete the required (administrative) field experience anywhere in the country without extending the program of study.

Areas of study include accounting, finance, leadership and ethics, management strategy, business decision-making skills and methods, business information systems, as well as other core skills in the business curriculum. For a broader knowledge of the organizational context in which health care is provided, students will complete a four-course concentration in Health Organization Management (HOM) with emphasis on healthcare quality, efficiency, and payment systems as part of the program.

The M.B.A. (HOM) program is accredited by the Commission on Accreditation of Health Care Management Education (CAHME) and is one of two accredited programs that can be completed in four years. This accreditation assures the prestige and enhances the value of M.D./M.B.A.

There is a requirement by the Texas Tech University Graduate School that applicants to its graduate programs in the College of Business take the GMAT. For MD/MBA applicants this has been waived in lieu of the MCAT. Further information about M.D./M.B.A and other graduate programs offered through the Rawls College of Business Administration may be obtained by contacting:

School of Medicine

Office of Admissions
TTUHSC School of Medicine
3601 4th Street, STOP 6216
Lubbock, TX 79430
Phone: (806) 743-2297
Fax: (806) 743-2725

Health Organization Management
M.B.A. & M.D./M.B.A. Program
Texas Tech University
Box 42101
Lubbock, TX 79409-2101
Phone: (806) 742-1236
Fax: (806) 742-2308

Web: <http://www.ttuhschool.edu/som/admissions/mba.aspx>

Web: <http://hom.ba.ttu.edu/MDMBA.asp>

The M.D./Ph.D. Dual Degree Program

For those students interested in pursuing a career in academic medicine as a physician-scientist, simultaneous enrollment in both the School of Medicine and the Graduate School of Biomedical Sciences is available. A program of study has been designed to permit the student to complete the requirements of both the M.D. degree and the Ph.D. degree. Accepted M.D./Ph.D. students will receive both stipend support and tuition (medical and graduate program) scholarships throughout the combined degree program. This program is designed to be completed in six to seven years and will provide the student with rigorous training in both clinical medicine and biomedical research. Students interested in this program should so indicate on the application form through the American Medical College Application Service (AMCAS) at: <http://www.aamc.org/students/amcas/start.htm>

Application Procedures

Students will apply through the American Medical College Application Service (AMCAS) @ <http://www.aamc.org/students/amcas/start.htm>. It is highly recommended that the student mention their research interest in their personal statement submitted with the AMCAS application. This information will assist the GSBS in selecting appropriate faculty to interview the applicant. A secondary SOM application is also required and information can be found at <https://www.ttuhschool.edu/som/admissions/secondaryapp/default.asp>. The secondary application fee is \$50.00.

Admission

Students who have been admitted to the M.D./Ph.D. program begin graduate studies during the summer session preceding their first year of the medical school curriculum. During the summer session, major

emphasis is placed on introduction to research with the goal of selecting an advisor and a research problem to be developed as the student's Ph.D. dissertation research.

Enrollment Pattern

Semester	Year 1	Year 2	Years 3-5	Years 6-7
Summer	GSBS	GSBS	GSBS	SOM
Fall	SOM	SOM	GSBS	SOM
Spring	SOM	SOM	GSBS	SOM

Further information about M.D./Ph.D. programs and other graduate programs offered through the Health Sciences Center Graduate School of Biomedical Sciences may be obtained by contacting:

The Graduate School of Biomedical Sciences
Texas Tech University Health Sciences Center
Mail Stop 6206
Lubbock, TX 79430
Phone: (806) 743-2556 or 1-800-528-5391
Fax: (806) 743-2656
E-mail: graduate.school@ttuhsc.edu
Web: <http://www.ttuhsc.edu/gsbs/>
<http://www.ttuhsc.edu/gsbs/prospective>
<http://www.ttuhsc.edu/gsbs/academics/mdphdprogram.aspx>

Programs are subject to change, depending on availability of resources and educational goals.

Additional information may be obtained from:

Office of Admissions
TTUHSC School of Medicine
3601 4th Street, STOP 6216
Lubbock, TX 79430
Phone: (806) 743-2297
Fax: (806) 743-2725
E-mail: somadm@ttuhsc.edu

Research Honors Program

This program has been established to provide an opportunity for selected medical students to pursue an in-depth research program with a faculty member of their choice. This Research Honors elective requires one year in addition to the four basic years of the medical curriculum and normally occurs between the second and third medical school years. While no credit toward graduation is granted during this year of enrollment, successful completion of the program will be acknowledged by the designation of "Research

Honors" on the student's diploma. A variety of financial support mechanisms are available for this research experience.

The J.D./M.D. Dual Degree Program

The Doctor of Jurisprudence / Doctor of Medicine Dual Degree Program is administered by Texas Tech University School of Law and Texas Tech University Health Sciences Center, School of Medicine. The JD/MD program is designed specifically for individuals interested in the areas of health law, healthcare policy, bioterrorism, forensics, or biomedical compliance.

Applicants interested in this unique program are required to submit an admission application and supporting documents to both the School of Law and the School of Medicine in the same annual admissions cycle. It is important to note that entrance into both programs of study require significant advanced preparation and adherence to strict deadlines. It is imperative that interested applicants familiarize themselves with the process of both programs of study. The successful applicant must meet the admission requirements for both programs of study.

For more information, please contact the School of Medicine, Office of Admissions at:

TTUHSC School of Medicine
3601 4th Street, STOP 6216
Lubbock, TX 79430
Phone: (806) 743-2297
Fax: (806) 742-2725
Web: <http://www.ttuhschool.edu/som/admissions/jdmd.aspx>

J.D. / M.D. Program
Texas Tech University
School of Law
1802 Hartford Avenue
Lubbock, TX 79409
Phone: (806) 742-3990 x 225
Fax: (806) 742-4617
Web: <http://www.law.ttu.edu/acp/academics/jdp/md/>



Special Programs (Undergraduate)

Undergraduate to Medical School Initiative (UMSI)

This program is a combined early acceptance program for academically competitive, Texas high school seniors who will be attending Texas Tech University as undergraduate students and desire entrance to the TTUHSC SOM. Students accepted into this program will have the MCAT requirement waived and are guaranteed a position in the medical school class, once the undergraduate program has been completed, provided they have maintained the required GPA and volunteering/medical experiences, and have not violated the code of academic or professional conduct. The undergraduate experience must include a minimum of six long semesters. This program is NOT an accelerated degree program, nor is it a combined degree program, nor is it a joint degree program. The student must first be accepted to Texas Tech University. If accepted, the prospective student will be notified of his/her qualification for the UMSI program by the undergraduate admissions office. If qualified at that point, the prospective student will be interviewed by TTUHSC SOM in the spring of their senior year in high school. If determined to be qualified, the student will be accepted by the medical school. For more details on the application period, process, and the application itself, please refer to the website:

<http://www.ttuhsoc.edu/som/admissions/umsi.aspx>

Undergraduate Honors Agreements

TTUHSC SOM has early acceptance agreements with the Honors Colleges/Programs of the following schools: Austin College, Texas Tech University, Angelo State University, University of Texas at El Paso, and West Texas A&M. Students that have been accepted in the Honors Colleges at these respective schools and have met all the prescribed requirements, are eligible to be accepted to medical school early. Prospective, qualified applicants are interviewed in the Fall of their Sophomore or Junior years, typically one or two full years earlier than the traditional applicant. If accepted, the student is guaranteed a seat in the medical school class at TTUHSC SOM and the MCAT requirement is waived. Please note that specific requirements may vary per participating school. Students interested should contact the respective Honors College for the detailed requirements. More information can also be found at:

http://www.ttuhsoc.edu/som/admissions/spec_programs.aspx

Joint Admission Medical Program (JAMP)

Texas Tech University HSC SOM participates in the state mandated Joint Admission Medical Program, or JAMP. This program is a Texas statewide premedical academy designed for competitive students with aspirations of one day becoming physicians. This program was initiated by the Texas Senate Bill 940 of the 77th Texas Legislature. More specifically, it is designed to provide services which support and encourage highly qualified, economically disadvantaged students pursuing a medical education. Second, it awards undergraduate and medical school scholarships to participating students. Third, JAMP is to provide for the admission of its students who satisfy both academic and nonacademic requirements to at least one participating medical school in Texas. Essentially, JAMP students that maintain the requirements are guaranteed admission to a Texas medical school. All medical schools in Texas currently

School of Medicine

participate in the program. Students selected for this program will receive mentoring from their respective undergraduate college or university and do a summer internship at one of the participating medical schools. The primary qualification for students is eligibility for Pell Grant funding. For more information on the JAMP program, please visit:

<http://www.utsystem.edu/jamp>



TTUHSC SOM Enrollment

Year	Male	Female	Total Enrolled
1995	323	118	441
1996	350	117	467
1997	354	135	489
1998	343	154	497
1999	325	164	489
2000	302	182	484
2001	302	185	487
2002	310	189	499
2003	308	203	511
2004	218	217	535
2005	306	231	537
2006	308	244	552
2007	325	217	572
2008	322	242	564
2009	327	243	570



Official Admissions Applicant vs. Matriculant Chronology (1972-2010)

Year	Applicants			Accepted				
	Male	Female	Total	Male	Female	Total	Avg. GPA	Avg. MCAT
1972 (Freshman)	314	27	341	31	5	36	3.22	534
1972 (Juniors)	----	----	Transfer	22	3	25	3.13	526
1973	965	136	1101	29	10	39	3.00	510
1974	1410	232	1642	29	11	40	3.21	588
1975	1101	229	1330	34	6	40	3.35	588
1976	1146	271	1417	34	6	40	3.47	567
1977	1116	276	1392	31	9	40	3.50	597
1978	878	387	1265	48	12	60	3.44	8.61
1979	848	353	1201	62	18	80	3.44	8.43
1980	908	314	1222	75	25	100	3.42	8.02
1981	922	360	1282	78	22	100	3.35	8.01
1982	883	377	1260	34	66	100	3.34	8.33
1983	635	303	938	72	28	100	3.36	50.18
1984	677	315	992	73	27	100	3.30	52.41
1985	645	306	951	59	42	101	3.36	50.77
1986	573	300	873	64	36	100	3.25	50.60
1987	605	273	891	73	21	100	3.23	52.21
1988	490	255	745	55	29	94	3.28	50.89
1989	527	293	820	68	30	98	3.28	48.31
1990	589	313	902	74	22	96	3.22	51.91
1991	717	387	1104	66	33	99	3.33	51.52
1992	807	441	1248	70	31	101	3.35	28.00
1993	971	541	1512	78	26	104	3.39	28.05
1994	1043	564	1607	83	37	120	3.45	28.00
1995	856	488	1601	94	34	128	3.52	28.70
1996	867	550	1698	94	32	135	3.36	26.31
1997	812	519	1561	81	41	123	3.56	28.82
1998	688	561	1452	65	41	114	3.57	29.10
1999	725	536	1488	78	45	123	3.58	29.14
2000	1002	882	2197	67	52	119	3.61	29.03
2001	987	831	2047	82	47	129	3.66	28.53
2002	1020	906	1926	78	52	130	3.63	28.70
2003	997	1039	2036	78	52	130	3.60	28.80
2004	1175	1130	2305	75	65	140	3.57	28.20
2005	1359	1296	2655	75	65	140	3.56	28.33
2006	1464	1388	2855	79	61	140	3.59	28.90
2007	1576	1462	3038	84	56	140	3.62	29.53

Year	Applicants			Accepted			Avg. GPA	Avg. MCAT
	Male	Female	Total	Male	Female	Total		
2008	1570	1388	2958	86	55	141	3.67	29.10
2009	1584	1359	2943	72	68	140	3.68	29.54
2010	1590	1368	2958	77	66	143	3.65	29.45

Office of Student Affairs



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Medical Student Affairs

Mission Statement

The mission of the Office of Student Affairs on all campuses is to provide academic support and career guidance for medical students, and to do so in a supportive environment that enables students to have a positive experience at TTUHSC School of Medicine. The goal of each office is for every medical student to be successful and to develop professional skills and personal relationships that will last a lifetime. As student advocates, the Student Affairs staff work to ensure that the rights of students are protected and that all students are treated fairly.

Code of Professional Conduct/Honor System

By registration in the School of Medicine, each student subscribes to the Medical Student Honor Code and the TTUHSC Code of Professional and Academic Conduct. The purpose of the Code of Professional and Academic Conduct is to emphasize in the medical school environment those qualities of integrity, self-discipline, and professional behavior that are essential to physicians. The TTUHSC Code protects the rights of the student who may be reported for academic dishonesty or for non-professional conduct. If charges are deemed valid, there is a hearing before a student-faculty committee which recommends to the Dean appropriate action. There is an appeal procedure to ensure due process, and the Dean makes a final decision based on the hearings and committee recommendations. A student handbook, which includes the detailed Codes, as well as other relevant policies and procedures, is given each student at matriculation. The handbook can also be found on the School of Medicine, Office of Student Affairs website. (<http://www.ttuhsoc.edu/som/studentaffairs>).

Standards for Curricular Completion

The School of Medicine faculty has developed minimum standards for entry into and progression through the medical curriculum. These standards provide guidance to achieve the Doctor of Medicine degree in preparation for licensure as a practicing physician and for postgraduate training. Throughout the medical education process, patient safety is of primary consideration.

Preparation of the Physician

The education of a physician includes the following phases:

1. A preparatory phase with at least 90 hours of credit in an accredited U.S. or Canadian college;
2. A rigorous professional education leading to the M.D. degree;
3. Postgraduate (residency) training; and
4. Lifelong continuing education after completion of residency training.

Unlike most professions, Medicine awards its formal degree midway through the education process, and the awarding of the degree certifies that the student has acquired a broad base of general knowledge and skills requisite for further training in postgraduate work. The process whereby the degree is gained prepares an individual to be a physician rather than a surgeon, psychiatrist, or other specialist. A common body of knowledge, skills, and behaviors thus underlies, and is necessary for, entry into specialized postgraduate training programs.

Medical education requires that the accumulation of scientific knowledge must be accompanied by the simultaneous acquisition of skills and professional attitudes and behaviors. It is through the care of patients that the physician learns the application of scientific knowledge and skills.

It is impossible to consider changes in medical education without considering their impact on patients, who are an integral part of the educational process. Faculties of schools of medicine have immediate responsibility to society to graduate the best possible physician. Admissions standards for medical school must be rigorous and exacting, and admissions must be extended only to those who are qualified to meet the performance standards of the profession.

Development of Medical Curriculum

The medical faculty is charged with devising a curriculum that allows the student to learn the fundamental principles of medicine, to acquire skills of critical judgment based on evidence and experience, and to develop an ability to use principles and skills wisely in solving problems of health and disease. In designing the curriculum, the faculty must introduce current advances in the basic and clinical sciences, including therapy and technology, changes in the understanding of disease, and the effect of social needs and demands on medical care. The faculty should foster in students the ability to learn through self-directed, independent study throughout their professional lives.

Finally, the faculty of each discipline should set the standards of achievement by all students in the study of that discipline. Examination should measure cognitive learning, mastery of basic clinical skills, the ability to use data in realistic problem solving, and respect for the rights and dignity of patients. Institutions must develop a system of assessment which assures that students have acquired and can demonstrate on direct observation the core clinical skills and behaviors needed in subsequent medical training.

Abilities and Skills Requisite for Medical School Completion

In the selection of students and in their progress through the curriculum, medical school faculty are guided by standards set by the Liaison Committee on Medical Education (LCME). The faculty place strong emphasis on the academic achievements of applicants, including performance in the sciences relevant to medicine. This includes evidence of satisfactory scholastic achievement as indicated by grade point averages (GPA) and scores on the Medical College Admissions Test (MCAT). Breadth of education and life experiences are deemed important in the selection process.

The faculty is equally cognizant of its responsibilities to patients who will be a part of the educational process and to future patients who will entrust their welfare and lives to medical school graduates. They therefore consider carefully the personal and emotional characteristics, motivation, industry, maturity, resourcefulness, and personal health appropriate to the effective physician.

Because the M.D. degree signifies that the holder is a physician prepared for entry into the practice of medicine within postgraduate training programs, it follows that graduates must acquire a foundation of knowledge in the basic and in the clinical sciences that will permit the pursuit of any of the several careers that medicine offers.

Candidates for the M.D. degree must have somatic sensation and the functional use of the senses of vision and hearing. Candidates' diagnostic skills will also be lessened without the functional use of the senses of equilibrium, smell, and taste. Additionally, they must have sufficient exteroceptive sense (touch, pain, and temperature), sufficient proprioceptive senses (position, pressure, movement, stereognosis and vibratory) and sufficient motor function to permit them to carry out the activities described in the sections which follow. They must be able to consistently, quickly, and accurately integrate all information received by whatever sense(s) is employed, and they must have the intellectual ability to learn, integrate, analyze and synthesize data.

A candidate for the M.D. degree must have abilities and skills in six essential areas: (1) observation, (2) communication, (3) motor, (4) conceptual, integrative and quantitative, (5) behavioral and social, and (6) ethical. Technological compensation can be made for disabilities in certain of these areas; but a candidate should be able to perform in a reasonably independent manner. The use of a trained intermediary to observe or interpret information or to perform procedures is deemed to compromise the essential function of the physician and may jeopardize the safety of the patient. The six areas of abilities/skills are detailed as follows:

1. **Observation:** The candidate must be able to observe demonstrations and experiments in the basic sciences. A candidate must be able to observe a patient accurately at a distance and close at hand. Observation necessitates the functional use of the sense of vision and somatic sensation. It is enhanced by the functional use of the sense of smell.
2. **Communication:** A candidate should be able to speak; to hear; and to observe patients in order to elicit information, to describe changes in mood, activity and posture; and to perceive non-verbal communications. A candidate must be able to communicate effectively with patients. Communication includes not only speech but reading and writing. The candidate must be able to

communicate effectively and efficiently in oral and written form with patients and with all members of the health care team.

3. **Motor**: Candidates should have sufficient motor functions to elicit information from patients by palpation, auscultation, percussion, and other diagnostic maneuvers. A candidate should be able to execute motor movements reasonably required to provide general care and emergency treatment to patients. Examples of emergency treatment reasonably required of physicians are cardiopulmonary resuscitation, administration of intravenous medication, application of pressure to stop bleeding, opening of obstructed airways, suturing of simple wounds, and performance of simple obstetrical maneuvers. Such actions require coordination of both gross and fine muscular movements, equilibrium and functional use of the senses of touch and vision.
4. **Intellectual-Conceptual, Integrative and Quantitative Abilities**: These abilities include measurement, calculation, reasoning, analysis, and synthesis. Problem solving and the clinical skills demanded of physicians require all of these intellectual abilities. In addition, the candidate should be able to comprehend three-dimensional relationships and to understand the spatial relationships of structures.
5. **Behavioral and Social Attributes**: A candidate must possess the emotional health required for full utilization of his/her intellectual abilities; the exercise of good judgment; the prompt completion of all responsibilities attendant to the diagnosis and care of patients; and the development of mature, sensitive, and effective relationships with patients. Candidates must be able to tolerate physically taxing workloads and to function effectively under stress. They must be able to adapt to changing environments, to display flexibility and to learn to function in the face of uncertainties and ambiguities inherent in the clinical problems of many patients. Compassion, integrity, concern for others, interpersonal skills, interest and motivation are all personal qualities that should be assessed during the admissions and education process.
6. **Ethical Standards**: A candidate must demonstrate professional demeanor and behavior, and must perform in an ethical manner in all dealings with peers, faculty, staff and patients.

Requesting Accommodations

Without compromising the standards required by the School or the fundamental integrity of its curriculum, the School recognizes that persons with disabilities, as that term is defined in the Americans with Disabilities Act, may fulfill the standards with reasonable accommodation. The School of Medicine is committed to developing innovative and creative ways of opening its curriculum to competitive and qualified candidates with disabilities. Requests for accommodation under the Standards for Curricular Completion will be considered on an individual basis and reasonable accommodation will be arranged if appropriate. The use of a trained intermediary to observe or interpret information is considered to compromise the essential function of the physician.

When an applicant comes for an interview at the School of Medicine, a copy of the detailed Standards for Curricular Completion will be included in the Orientation Packet. Questions about the Standards are welcomed and interviewees will be informed that they must be qualified to meet all of the Standards, with or without accommodation.

If a student is offered and accepts an admissions offer from the School of Medicine, the student must then sign a form acknowledging that he/she has read and understands that the Standards for Curricular Completion must be met with or without accommodation. A request for accommodation along with supporting documentation about the disability from an appropriate specialist and the proposed accommodation(s) must be presented in writing to the TTUHSC ADA Compliance Officer in the HSC Office of Student Services. Copies of the request and documentation will then be forwarded to the SOM Office of Student Affairs. The deadline for requests with supporting documentation is normally 30 days prior to the beginning of the first semester of enrollment. The School may also seek independent review from a specialist of its choice. The decision on whether or not an accommodation request will be granted is made by a committee composed of the Associate Dean for Academic Affairs, the Assistant Dean for Student Affairs, the Student Affairs Committee, and ad hoc faculty knowledgeable regarding the area of disability. Such decisions are subject to review and approval by the Dean. If reasonable accommodation is feasible, effort will be made to provide the accommodation as classes begin. If the request for accommodation is denied, the student will be notified in writing prior to the start of classes. For requests with documentation received prior to April 15, effort will be made to notify the student of the decision regarding their request prior to May 15.

The Faculty, through the Student Promotion and Professional Conduct Committee, has determined that students will be expected to complete the curriculum within four years from the time of initial matriculation and take all designated courses as appropriate for that stage of the curriculum. Exceptions to the requirement that students take all designated courses as appropriate for that stage of the curriculum may be sought and processed as other requests for accommodation, as noted above. Such a request will be based on 1.) a specific disability certified by a qualified professional and accompanied by a specific recommendation for accommodation, i.e., a decompressed curriculum based on such a disability and 2.) a written request from the matriculant for such an accommodation based on that disability. As noted above, while students will be expected to complete the curriculum in four years, such as an accommodation will not invalidate the requirement that a student must complete all curricular requirements in no more than six years from the time of initial matriculation.

In the area of learning disabilities, the student should note that he/she will have to petition the National Board of Medical Examiners for any accommodation on the United States Medical Licensing Examinations (Steps I, II, and III) and that this process is an addition to and separate from any request for accommodation by the Texas Tech School of Medicine.

Students with Learning Disabilities

Definition

The term learning disabilities is used to refer to a heterogeneous group of disorders characterized by significant difficulties in spelling, reading, expressing ideas in writing, or solving mathematical problems. They are presumed to be due to a dysfunction in the central nervous system and can occur across the life span. While difficulties with social and behavioral problems may co-exist with learning disabilities, they do not constitute a learning disability in themselves.

Guidelines

The TTUHSC School of Medicine uses the following as guidelines for the assessment of learning disabilities. These were derived from a previous Ad Hoc Committee on Learning Disabilities of the Association of American Medical Colleges.

A. Comprehensive Assessment

1. A comprehensive assessment must have been done within the last three years.
2. A qualified professional, e.g., a licensed psychologist, a learning disabilities diagnostician, an educational psychologist, with experience in assessing adults must conduct the assessment.
3. The assessment must address the areas of aptitude, achievement, and information processing.
4. The assessment must provide clear and specific evidence and identification of a learning disability. "Learning styles" and "learning differences" do not constitute a learning disability.
5. Information regarding vocational interests and aptitudes may be included.
6. Students are responsible for the costs of any and all testing done with regard to learning disabilities.
7. If the student has already matriculated and applies for accommodation, the student must be assessed by a professional approved by the institution.
8. The following tests are considered acceptable.
 - a. Aptitude. The Wechsler Adult Intelligence Scale-Revised (WAIS-R) with subtest scores is preferred. Also acceptable are the Woodcock-Johnson Psychoeducational Battery-Revised and the Stanford-Binet Intelligence Scale- Fourth Edition.
 - b. Achievement. Levels of functioning in reading, mathematics, and written language are required. Acceptable instruments include:

- Woodcock-Johnson Psychoeducational Battery-Revised Tests of Achievement
 - Stanford Test of Academic Skills
 - Scholastic Abilities Test of Adults
- Or specific achievement tests such as
- Test of Written Language-2 (TOWL-2)
 - Woodcock Reading Mastery Tests-Revised
 - Stanford Diagnostic Mathematics Test.

The Wide Range Achievement Test-Revised is not acceptable.

- Information Processing. Use of subtests from the WAIS-R or the Woodcock-Johnson Tests of Cognitive Ability to assess specific areas of information processing (e.g., short- and long-term memory, sequential memory, auditory and visual perception and processing, and processing speed) are acceptable.
9. All reports must contain the following information:
 - The name, degree, title, address, and telephone number of the assessor;
 - Information on the professional credential of the evaluator and the areas in which the individual specializes;
 - The date of the assessment;
 - The names and results of the tests (i.e., scores);
 - The nature and effect of the learning disability;
 - An appraisal of the student's academic strengths and weaknesses;
 - Recommendations for strategies and accommodations.
 10. Students who claim learning disability must review the guidelines with the professional who does the assessment.
 11. The diagnosis for learning disability must confirm less than expected academic functioning as demonstrated by a converted score of 15 or more points less than a full scale IQ on individually administered standardized achievement tests.

12. A history of substantial long-term functional impairment must be present.

B. Evaluation and Accommodation

If a student is offered and accepts an admissions offer from the School of Medicine, the student must then sign a form acknowledging that he/she has read and understands that the Standards for Curricular Completion must be met with or without accommodation. A request for accommodation must be presented in writing to the TTUHSC ADA Compliance Officer in the HSC Office of Student Services. Copies of the request and documentation will then be forwarded to the SOM Office of Student Affairs along with supporting documentation about the disability from an appropriate specialist and the proposed accommodation(s). Generally the deadline for requests with supporting documentation is 30 days prior to the beginning of the first semester of enrollment. The School may also seek independent review from a specialist of its choice. The decision on whether or not an accommodation request will be granted is made by a committee composed of the Associate Dean for Academic Affairs, the Assistant Dean for Student Affairs, the Student Affairs Committee, and ad hoc faculty knowledgeable regarding the area of disability in question. Such decisions are subject to review and approval by the Dean. If reasonable accommodation is feasible, effort will be made to provide the accommodation as classes begin. If the request for accommodation is denied, the student will be notified in writing prior to the start of classes. For requests with documentation received prior to April 15, effort will be made to notify the student of the decision regarding their request prior to May 15.

The student is responsible for any and all costs associated with the evaluation, including any additional testing that is found to be indicated after matriculation. If testing is indicated after matriculation, the student can be assessed by a professional of the student's choice whom the school shall also approve. Such approval will not be unreasonably withheld.

Accommodation by the National Board of Medical Examiners for Steps I, II and III of the United States Medical Licensing Examination is an independent and additional process and must be pursued by the individual student when applying for the examinations. All files and documentation regarding learning disabilities and accommodation will be kept confidential and in the Office of Student Affairs.

Health Insurance & Immunizations

The Association of American Medical Colleges states that all students should be immunized against a number of infectious diseases for their own safety as well as the safety of others. **All matriculating TTUHSC School of Medicine students must be compliant with the school's immunization requirements in order to register for classes.**

Health Insurance Requirements

All students at TTUHSC School of Medicine are required to carry personal health insurance at all times. The school's clinical affiliates also require that students carry health insurance in order to participate in clinical experiences.

TTUHSC Student Services has information about several different health insurance plans that are available to students. However, many other insurance companies offer health plans. Students should compare health insurance plans in order to select the plan that is best suited to their personal situation.

Students are required to provide proof of coverage each year during medical school. Our clinical affiliates as well as those at other medical schools reserve the right to require proof of coverage on demand and to exclude individuals without current insurance coverage from rotations.

Immunization Requirements

In order to protect the health of our medical students and the health of the patients with whom they come in contact, the School of Medicine requires all entering students to provide documentation of several immunizations as well as the results of serological titers to determine whether or not they are actually immune to certain diseases. Protective immunity provided by some immunizations declines over time, and some individuals do not ever produce protective antibodies after receiving immunizations. Serologic titers are needed to determine immune status and are performed on a blood sample drawn from the arm.

Students are not allowed to participate in any classes involving patient contact until all required documentation has been received by the Office of Student Affairs. All students entering Texas Tech School of Medicine must provide documentation of the required immunizations and results of the required titers.

- Tetanus/diphtheria booster within 10 years of matriculation
- Tdap (tetanus, diphtheria and pertussis)
- Measles-Mumps-Rubella (MMR), 2 doses at least 30 days apart
- Hepatitis B series OR protective antibody titer
- 2-step tuberculin skin test (PPD) within the past year OR documented physician diagnosis of disease OR chest X-ray in the past year following prior positive skin test
- Varicella, Rubella, and Rubeola titers: Documentation of immune status by quantitative IgG testing

Academic Support Services

Students receive a variety of support services above and beyond the formal academic program. Most importantly, students have ready access to faculty for assistance and are actively encouraged to utilize this valuable resource. In addition, the School of Medicine Office of Student Affairs offers individual assistance in identifying and improving deficiencies in studying, test taking, and time management skills. Students are referred for outside counseling as appropriate. Personnel in the SOM Office of Student Affairs are trained to provide individual academic counseling as well as help students coordinate study groups. Sometimes personal problems can have a deleterious effect on academic performance. Students can self-refer to the Health Sciences Center Program for Student Assistance for free counseling services.

Grading

All blocks in Years 1, 2, and 3 are graded as Honors, High Pass, Pass, Marginal, or Fail. Clerkships in Year 3 are graded as Honors, High Pass, Pass and Fail while most rotations in Year 4 are presently graded Honors, Pass, or Fail.

Final grades in Years 1 and 2 are derived from a variety of assessment tools, including written and practical exams, small group evaluations, and NBME Examinations in selected blocks or courses.

Third year clerkship grades are primarily determined by student performance on three major graded components, namely clinical evaluations by attending faculty and residents, NBME Clinical Subject Exams and an Observed Structured Clinical Examination. Fourth year grades are derived from evaluations by attending faculty and residents with departmental exams and presentations on some rotations.

Academic Progress

The faculty of the School of Medicine has the responsibility for recommending students for promotion and graduation. This responsibility is administered through the Student Promotions and Professional Conduct Committee (formerly the Grading and Promotions Committee) that represents the faculty at large. The Student Promotions and Professional Conduct Committee is appointed by the Executive Committee of the Faculty Council and is charged with the responsibility to review and evaluate the academic and behavioral progress of each medical student enrolled at TTUHSC School of Medicine. The SPPCC determines the conditions for promotion, reinstatement, or dismissal for each student in accordance with the published policies and procedures. Every attempt will be made to apply principles of fairness and due process when considering actions of the faculty or administration related to student performance. In general, students who receive a final grade of Fail will meet the Student Promotions and Professional Conduct Committee to discuss their academic performance and possible actions by the committee. Possible actions include remediation, repetition of an academic year, or dismissal.

United States Medical Licensing Examination (USMLE)

Students are required to take Step 1 of the USMLE prior to beginning the third year of the curriculum and must achieve a passing score to continue beyond the first clerkship in the third year. Students who do not achieve a passing score at the first attempt will not continue with clinical clerkships until they do so. Students must also pass the Step 2 Clinical Knowledge Exam and the Step 2 Clinical Skills Exam as requirements for graduation from the medical school curriculum.

Graduation

Students planning to graduate **MUST** complete the Intent to Graduate. Students should create a "Diploma" address in WebRaider so their diploma will be mailed to the proper address. The diploma address will only be used if the diploma is not picked up at commencement.

Students must be enrolled at Texas Tech University Health Sciences Center in the term in which they plan to graduate. Please consult with your school's Student Affairs personnel to confirm the minimum number of hours of enrollment.

Office of Curriculum



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Doctor of Medicine Program

Institutional Educational Vision, Goals, and Objectives

Approved: May 10, 2010

Vision

Graduates of the TTUHSC-SOM will be knowledgeable, competent, and compassionate health professionals who work diligently to improve the health of the public.

Goals

The Texas Tech University Health Sciences Center School of Medicine will graduate physicians who deliver patient-centered care as members of an interdisciplinary team, emphasizing evidence-based practice, quality improvement approaches, and informatics.

Objectives

To accomplish our goal, the Texas Tech University Health Sciences Center School of Medicine has identified key objectives for our program that address the knowledge, skills, behaviors, and attitudes needed for students to acquire the degree of Doctor of Medicine. These objectives are designed to ensure that students acquire the six core competencies described by the Accreditation Council for Graduate Medical Education: patient care, medical knowledge, practice-based learning and improvement, interpersonal and communication skills, professionalism, and systems-based practice. Each block, clerkship and rotation sets forth specific learning objectives and their outcome measurements based on

these key educational objectives. The School of Medicine will continue to review these objectives and revise as needed to ensure that the vision and goals are met.

Upon completion of all required courses and clinical educational experiences the student will be able to:

C. Patient Care: (That is compassionate, appropriate, and effective for the treatment of health problems and the promotion of health)

- Participate in competent and humane medical care of individuals, families and the larger society based on the scientific and clinical principles of health and its promotion, disease and its prevention and management, and psychosocial factors influencing the well-being of patients.
- Assess the clinical status of patients to include obtaining a patient's history, performing a comprehensive physical examination, and assessing and describing treatment plans to address the medical and emotional needs of the patient.
- Evaluate the clinical status of patients through proficiency in clinical reasoning, including identification of clinical problems using scientific methods, data collection, hypothesis formulation, and the retrieval, management, and appropriate use of biomedical information for decision-making.

K. Medical Knowledge: (Of established and evolving biomedical, clinical, and behavioral sciences and their application to patient care)

- Describe the application of the scientific method for solving problems in the basic and clinical sciences.
- Complete both comprehensive and problem-specific physical examinations appropriate to the concerns, symptoms, and history of the patient.
- Integrate the patient interview and physical examination findings with medical knowledge to identify the clinical problems of patients, formulate differential diagnoses, apply the scientific method and develop plans for diagnostic investigation, treatment, and management.
- Describe the application of laboratory tests and diagnostic procedures and interpret their results.
- Analyze clinical problems and formulate differential diagnoses, diagnostic investigations and clinical treatment and management plans by applying data from the clinical interview and clinical examination.
- Participate in the selection and performance of basic diagnostic and therapeutic procedures.

L. Practice-Based Learning and Improvement: (The investigation and evaluation of patient care practices, appraisal and assimilation of scientific evidence and improvement of patient care practices)

- Apply evidence-based care to patients and use skilled clinical reasoning and the current state of medical art and science.
- Use analytical tools for data collection, quantitative analysis, critical reading and investigation, and apply these data to the clinical care of patients.
- Use self-directed learning and information technology to acquire information from the basic and clinical sciences needed for patient care.

- Demonstrate commitment to life-long learning, including self-directed study of basic and clinical science, critical assessment of the medical literature, and the use of evidence-based medicine.

I. Interpersonal and Communication Skills: *(The ability to effectively exchange information and collaborate with patients, their families, and other health professionals)*

- Communicate effectively, both verbally and non-verbally, with patients and their families, colleagues, and other health care professionals about clinical assessments and findings, diagnostic testing, therapeutic interventions, prognosis, and disease processes.
- Demonstrate an understanding of the social nature of health care and the need for respect for patients, other health care professionals, and administrative members of the health care systems.

P. Professionalism: *(The behaviors of a competent, compassionate, and ethical physician)*

- Demonstrate professional integrity and exemplary behavior, including compassion, truthfulness, ethical reasoning, and altruism.
- Demonstrate sensitivity to the diverse biopsychosocial, cultural, and spiritual needs of patients and communicate clearly, respectfully, and compassionately with patients, their families and other health care professionals.
- Participate in patient care that is compassionate and empathic, including pain management, substance abuse, mental health disorders, or terminal illness.
- Demonstrate dedication to the highest ethical standards governing physician-patient relationships, including privacy, confidentiality, and the fiduciary role of the physician and health care systems.

S. System-Based Practice: *(The larger context and system of healthcare that includes effective use of resources in the system to provide optimum health care)*

- Describe the organization of the health care delivery system and the professional, economic, legal, and ethical expectations of physicians.
- Demonstrate the application of the principles of behavioral and social sciences as applied to family systems and their effect on patient health.
- Employ health care within an interdisciplinary team that is safe, effective, patient-centered, timely, efficient, and equitable.

Undergraduate Medical Education

Texas Tech University Health Sciences Center School of Medicine is committed to excellence in the medical education of generalist physicians in preparation for training in any clinical specialty. In the Fall of 2005, the School launched a new curriculum beginning with the Class of 2009 that emphasizes:

- Continuous integration of basic science and clinical medicine in all four years, with early introduction of clinical experiences starting with the first month of medical school
- Self-directed student learning with varied teaching formats directed to achieving the important competencies of our Vision, Goals, and Objectives listed above, and
- Active management of curricular content both within and across all four years

The School of Medicine has responded to the Association of American Medical Colleges and medical education innovations nation-wide to realign curricula so graduating students meet the best practice standards of patient-centered scientific care. The new curriculum at the School of Medicine emphasizes competency-based education, focusing on the skills and compassion that distinguish excellence in patient care in our profession. Dedicated teaching faculty have responded fully to this unparalleled opportunity to reshape the curriculum so that students are the best-prepared doctors and the faculty members are the best educators. Our curriculum trains students to manage and use the constantly changing best evidence for practice, and to apply this evidence in humane and sensitive manner.

To ensure distinction in medical education, Dean Steven Berk fully supports the offices charged with the SOM educational mission: the Office of Student Affairs, the Office of Curriculum, and the Office of Faculty Affairs and Faculty Development. These offices work closely on this common mission to ensure continual improvement of learning and teaching. In conjunction with the Educational Policy Committee, the faculty, and student body that oversees adherence of the curriculum to national and school standards, the Offices have made student assessment and feedback the centerpiece of curriculum redesign.

The curriculum is continually reviewed and modified to ensure the personal and professional growth of our future physicians. To promote balance between academics and lifestyle in Years 1 and 2, the SOM has limited contact hours to ~22 per week. Opportunities for interactive learning through small group tutorials, labs, problem-based learning, team-learning, and web-based instruction have also been expanded.

The management of the curriculum has been formally endorsed by the Liaison Committee on Medical Education. The Liaison Committee on Medical Education represents the Association of American Medical Colleges and the American Medical Association as the national accreditation body for medical schools. The Texas Tech University Health Sciences Center School of Medicine received a full seven-year accreditation in March 2009, the longest period of accreditation awarded to a medical school of high quality.

Educational Tracks and Joint Degrees at the School of Medicine

Beginning with the class that matriculates in Fall 2010, students will be able to choose between two educational tracks within the School of Medicine, a standard four year program and a three year accelerated program called the Family Medicine Accelerated Track (FMAT). The School of Medicine also offers three joint degrees in collaboration with other schools at Texas Tech University Health

Sciences Center or Texas Tech University and a MD with Research Honors degree. Each of these tracks and programs are described below.

4 Year Program for 2010 – 2011 Academic Year

Most students will follow a standard four year program with Years 1 and 2 focused on the acquisition of knowledge of the scientific basis of medicine allied to an introduction to clinical medicine and Years 3 and 4 provided instruction and experiences in a variety of areas of clinical medicine.

Blocks and Clerkships	Credit Hours	Weeks
Year One		
Clinically Oriented Anatomy (Fall)	11	11
Biology of Cells and Tissues (Fall)	9	9
Structure and Function of Major Organ Systems (Spring)	13	13
Host Defense (Spring)	9	9
Early Clinical Experience I (Fall & Spring)	4	
Year Two		
General Principles and Integrated Neurosciences (Fall)	12	12
Multi-systems Disorders and Cancer (Fall)	8	8
Systems Disorders I (Spring)	9	9
Systems Disorders II and Life Span Issues (Spring)	8	8
Early Clinical Experience II (Fall & Spring)	4	
Basic Medical Spanish	0	
Year Three (Required Clerkships)		
Internal Medicine	8	8
Surgery	8	8
Obstetrics & Gynecology	8	8
Pediatrics	8	8
Psychiatry	8	8
Family Medicine	8	8
MSIII Continuity Clinic Experience	2	
Integration Seminar – Student Grand Rounds	0	
Year Four		
Neurology Senior Rotation	4	4
Geriatrics Rotation	2	2
Ambulatory Care Rotation	2	2
Critical Care Rotation	4	4
Subinternship	4	4
Electives (4 minimum)	16	16
Total Credit Hours for MD	169	159

Texas Tech University Health Sciences Center School of Medicine Curriculum 2010-2011 Four Year Program											
	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	Jun
Year 1 41 weeks Focus: Normal Physiology	Clinically Oriented Anatomy		Biology of Cells and Tissues		Structure & Function of Major Organ Systems			Host Defense			
	Early Clinical Experience I										
Year 2 39 weeks Focus: Abnormal Physiology	General Principles & Integrated Neurosciences		Multisystem Disorders & Cancer		System Disorders I		System Disorders II & Life Span Issues				
	Early Clinical Experience II										
	Basic Medical Spanish										
Year 3 48 weeks Focus: Patient Assessment	Family Medicine		Internal Medicine		Obstetrics/ Gynecology		Pediatrics		Psychiatry		Surgery
	Continuity Clinic Experience										
	Integration Seminar										
Year 4 32 weeks Focus: ACGME Competencies	Neuro 4 wks	Ger 2 wks Amb 2 wks	Subl 4 wks	Critical Care ER - ICU 4 wks	Elective 4 wks	Elective 4 wks	Elective 4 wks	Elective 2 wks	Elective 2 wks	Available Time 12 wks	

Family Medicine Accelerated Track

TTUHSC School of Medicine received approval in Spring 2010 for the establishment of a new accelerated educational program named the Family Medicine Accelerated Track (FMAT). This accelerated educational program was developed in recognition of the need to train more physicians who will practice in the major primary care field of Family Medicine. Up to 10 students per year will participate in this program. The major modifications in this program include additional coursework in the summer between Years 1 and 2, a longitudinal Family Medicine Clerkship in Year 2 and a new Family Medicine experience at the end of Year 3 that will cover material normally presented in Year 4 of the standard curriculum.

Blocks and Clerkships	Credit Hours	Weeks
Year One		
Clinically Oriented Anatomy (Fall)	11	11
Biology of Cells and Tissues (Fall)	9	9
Structure and Function of Major Organ Systems (Spring)	13	13
Host Defense (Spring)	9	9
Early Clinical Experience I (Fall & Spring)	4	
Year Two		
FMAT 1 (Summer)	8	8
General Principles and Integrated Neurosciences (Fall)	12	12
Multi-systems Disorders and Cancer (Fall)	8	8
Systems Disorders I (Spring)	9	9
Systems Disorders II and Life Span Issues (Spring)	8	8
Basic Medical Spanish	0	
Family Medicine Clerkship/ F-MAT 2 (Fall & Spring)	12	12
Year Three (Required Clerkships)		
Neurology Clerkship (June)	4	4
Internal Medicine	8	8
Surgery	8	8
Obstetrics & Gynecology	8	8
Pediatrics	8	8
Psychiatry	8	8
F-MAT 3	8	8
MSIII Continuity Clinic Experience	2	
Integration Seminar – Student Grand Rounds	0	
Total Credit Hours for MD	157	151

Texas Tech University Health Sciences Center School of Medicine Curriculum 2010-2011 FMAT Program												
	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
Year 1 41 weeks	Clinically Oriented Anatomy		Biology of Cells and Tissues		Structure & Function of Major Organ Systems			Host Defense		FMAT 1		
	Early Clinical Experience I											
Year 2 39 weeks	FMAT 1	General Principles & Integrated Neurosciences		Multisystem Disorders & Cancer		System Disorders I		System Disorders II & Life Span Issues		Neuro 4 wks		
	FMAT 2 (Family Medicine Clerkship including Geriatrics Rotation)											
	Basic Medical Spanish											
Year 3 48 weeks	Family Medicine		Internal Medicine		Obstetrics/Gynecology		Pediatrics		Psychiatry		FMAT 3	
	Continuity Clinic Experience											
	Integration Seminar											

Joint Programs

MD/MBA Program

As described earlier, the MD/MBA program is a four year degree offered by the School of Medicine and the Rawls School of Business at Texas Tech University. Student complete the MBA component of the degree during the first two years of medical school and can complete years 3 and 4 of the MD curriculum on any TTUHSC SoM campus.

Texas Tech University Health Sciences Center School of Medicine Curriculum 2010-2011 MD/MBA Program													
		Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
Year 1 41 weeks SoM Focus: Normal Physiology		Clinically Oriented Anatomy			Biology of Cells and Tissues		Structure & Function of Major Organ Systems			Host Defense			
		Early Clinical Experience I											
Rawls College of Business		Concurrent Enrollment Complete Required Coursework											
Year 2 39 weeks SoM Focus: Abnormal Physiology		General Principles & Integrated Neurosciences			Multisystem Disorders & Cancer		System Disorders I		System Disorders II & Life Span Issues				
		Early Clinical Experience II											
Rawls College of Business		Concurrent Enrollment Complete Required Coursework											
Year 3 48 weeks Focus: Patient Assessment		Family Medicine		Internal Medicine		Obstetrics/ Gynecology		Pediatrics		Psychiatry		Surgery	
		Continuity Clinic Experience											
		Integration Seminar											
Year 4 32 weeks Focus: ACGME Competencies		Neuro 4 wks	Ger 2 wks Amb 2 wks	Subl 4 wks	Critical Care ER - ICU 4 wks	Elective 4 wks	Elective 4 wks	Elective 4 wks	Elective 2 wks	Elective 2 wks	Available Time 12 wks		

MD/PhD Program

The MD/PhD program is offered jointly by the School of Medicine and the Graduate School of Biomedical Sciences. The PhD component is traditionally completed after Year 2 of the MD curriculum and is expected to be completed within three years.

Texas Tech University Health Sciences Center School of Medicine Curriculum 2010-2011 MD/PhD Program											
	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	Jun
Year 1 41 weeks Focus: Normal Physiology	Clinically Oriented Anatomy		Biology of Cells and Tissues		Structure & Function of Major Organ Systems			Host Defense			
	Early Clinical Experience I										
Year 2 39 weeks Focus: Abnormal Physiology	General Principles & Integrated Neurosciences		Multisystem Disorders & Cancer		System Disorders I		System Disorders II & Life Span Issues				
	Early Clinical Experience II										
	Basic Medical Spanish										
Years 3-5 Enrolled in Graduate School for Biomedical Sciences Complete Concentration-specific coursework and thesis research											
Year 6 48 weeks Focus: Patient Assessment	Family Medicine		Internal Medicine		Obstetrics/Gynecology		Pediatrics		Psychiatry		Surgery
	Continuity Clinic Experience										
	Integration Seminar										
Year 7 32 weeks Focus: ACGME Competencies	Neuro 4 wks	Ger 2 wks Amb 2 wks	Subl 4 wks	Critical Care ER - ICU 4 wks	Elective 4 wks	Elective 4 wks	Elective 4 wks	Elective 2 wks Elective 2 wks	Available Time 12 wks		

MD with Research Honors Program

For students who wish to add research experience to their portfolio, the MD with Research Honors program permits the performance of one year of research in collaboration with faculty from the Graduate School of Biomedical Sciences. The research year is usually performed after Year 2 of the MD curriculum.

Texas Tech University Health Sciences Center School of Medicine Curriculum 2010-2011 MD with Research Honors Program											
	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	Jun
Year 1 41 weeks Focus: Normal Physiology	Clinically Oriented Anatomy		Biology of Cells and Tissues		Structure & Function of Major Organ Systems			Host Defense			
	Early Clinical Experience I										
Year 2 39 weeks Focus: Abnormal Physiology	General Principles & Integrated Neurosciences		Multisystem Disorders & Cancer		System Disorders I			System Disorders II & Life Span Issues			
	Early Clinical Experience II										
Year 3 Enrolled (for one semester only) in Graduate School for Biomedical Sciences Complete Research Project											
Year 4 48 weeks Focus: Patient Assessment	Family Medicine		Internal Medicine		Obstetrics/Gynecology		Pediatrics		Psychiatry		Surgery
	Continuity Clinic Experience										
Integration Seminar											
Year 5 32 weeks Focus: ACGME Competencies	Neuro 4 wks	Ger 2 wks Amb 2 wks	Subl 4 wks	Critical Care ER - ICU 4 wks	Elective 4 wks	Elective 4 wks	Elective 4 wks	Elective 2 wks Elective 2 wks	Available Time 12 wks		

JD/MD Degree Program

The JD/MD degree program is offered by the School of Medicine in collaboration with the School of Law at TTU. Students complete two years of coursework in the School of Law before entering the first year of the MD curriculum.

Texas Tech University Health Sciences Center School of Medicine Curriculum 2010-2011 JD/MD Program													
Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun		
Years 1-2 Enrolled in Law School Complete Required Coursework													
Year 3 41 weeks Focus: Normal Physiology		Clinically Oriented Anatomy		Biology of Cells and Tissues		Structure & Function of Major Organ Systems		Host Defense					
Early Clinical Experience I													
Year 4 39 weeks Focus: Abnormal Physiology		General Principles & Integrated Neurosciences		Multisystem Disorders & Cancer		System Disorders I		System Disorders II & Life Span Issues					
Early Clinical Experience II													
Year 5 48 weeks Focus: Patient Assessment		Family Medicine		Internal Medicine		Obstetrics/ Gynecology		Pediatrics		Psychiatry		Surgery	
Continuity Clinic Experience													
Integration Seminar													
Year 6 32 weeks Focus: ACGME Competencies		Neuro 4 wks	Ger 2 wks Amb 2 wks	Subi 4 wks	Critical Care ER - ICU 4 wks	Elective 4 wks	Elective 4 wks	Elective 4 wks	Elective 2 wks	Elective 2 wks	Available Time 12 wks		

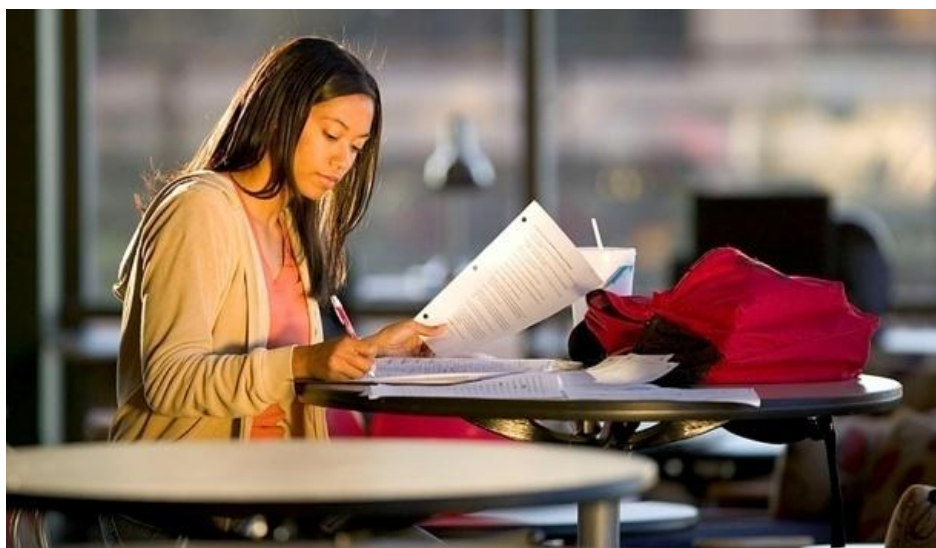
Year 1 Required Blocks (4 year and FMAT program)

Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
Year 1 41 weeks Focus: Normal Physiology		Clinically Oriented Anatomy		Biology of Cells and Tissues		Structure & Function of Major Organ Systems		Host Defense			
Early Clinical Experience I											

The first year is divided into four interdisciplinary blocks: Clinically Oriented Anatomy, Biology of Cells and Tissues, Structure and Function of Major Organ Systems, and Host Defense. Early Clinical Experience I is a longitudinal block that runs continually throughout this year and introduces students to skills for patient assessment. More specifically, these five equally weighted elements have the following objectives:

Block Number	Name/General Description
MSCI 5030	Structure and Function of Major Organ Systems This block, in weeks 21 through 34, covers structural and functional aspects of the various organ systems of the body through a series of lectures, histology laboratories, clinical correlations, question and answer sessions and voice-over PowerPoint presentations available online. The systems include cell, cardiovascular, respiratory, renal, gastrointestinal with nutrition, and endocrine/reproductive with an emphasis on regulation of function and the integration among systems.
MSCI 5040	Host Defense This 9-week block introduces both the defense system of the body (the immune system) and the agents that can invade the body and cause disease (medical microbiology). It covers the development of the immune system, effector functions of the immune system in health – defense of the body against microbes, transplanted tissues, and tumors; and the dangers of inappropriate immune responses – allergy, autoimmunity, and immunodeficiency. The block provides a traditional survey of medically important microorganisms, their identification, the mechanisms through which they cause disease, and specific diseases associated with them. Clinical correlations tie the microbes into the organ systems. Team-based learning components, online vignettes, and wet laboratory exercises continue the clinical perspective, and encourage self-directed as well as cooperative learning.
MSCI 5060	Clinically Oriented Anatomy This block spans Weeks 1 to 11 and provides students with the foundation in anatomy and embryology necessary for success in the remainder of the curriculum and introduces students to applications of anatomy to the practice of medicine. It includes the traditional content and concepts of gross and developmental anatomy presented in a clinical context, coordinated with introductions to case-based presentations by physicians.

Block Number	Name/General Description
MSCI 5070	Biology of Cells and Tissues This block, from Weeks 12 to 20, integrates biochemistry, genetics, cell biology, and histology of the tissues. The block progresses from molecules to cells to the organization of cells into tissues.
MSCI 5080	Early Clinical Experience I This block extends throughout Year 1, and provides the framework for students to learn the fundamental skills of physician-patient interactions, including professionalism, communications skills and patient assessment. Learning occurs in classroom settings, small group forums, clinics, hospitals and community-based settings. Students are assigned to Master Clinical Teachers to learn history-taking and physical examination skills. The students also explore ethical, cultural, psychological and economic dimensions of clinical care in a variety of learning settings.



Year 2 Required Blocks (4 Year and FMAT Programs)

	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
Year 2 39 weeks Focus: Abnormal Physiology	General Principles & Integrated Neurosciences		Multisystem Disorders & Cancer			System Disorders I		System Disorders II & Life Span Issues				
	Early Clinical Experience II											
	Basic Medical Spanish											

Year 2 features an interdisciplinary organ-based systems approach, combining principles and content from microbiology, pathology, neurosciences, and clinical medicine including: General Principles and Integrated Neurosciences, Multisystem Disorders and Cancer, Systems Disorders I, and Systems Disorders II and Life Span Issues. Early Clinical Experience II runs continually throughout this year, where students continue their training in clinical care in practicing physician offices.

Block Number

Name/General Description

MSCI 6010

General Principles and Integrated Neurosciences: This block covers Year 2 Weeks 1 through 12 and begins with a one-week overview of population health and principles of pharmacology. This is followed by a comprehensive seven-week segment on the central nervous system that integrates microscopic structure, neuroanatomy, and neurological systems with both normal function and clinical signs and symptoms. The final third of the block covers aspects of neuropharmacology, neuropathology, and the etiology (biological and psychosocial factors), signs, and symptoms of various neuropsychiatric disorders.

MSCI 6020

Multisystem Disorders and Cancer: Beginning with basic pathology principles of injury, inflammation, and repair followed by the clinical concepts of infectious disease and oncogenesis and the development of cancer, this block lays a base for the study of organ system diseases. The block addresses the microscopic and macroscopic structural abnormalities, basic pathophysiology, and functional abnormalities of the musculoskeletal, hematopoietic, and lymphoreticular systems. It provides fundamental knowledge of the principles of treatment of infectious diseases, musculoskeletal, hematopoietic and lymphoreticular disorders, and cancer. Exercises in epidemiology, reliability of diagnostic testing, and examination of case-control studies continue the application of evidence-based practice. Clinical correlations provide students with knowledge to enhance medical problem-solving, and to establish general relationships between the musculoskeletal, hematopoietic, and lymphoreticular systems and the signs and symptoms of disease. Team-based learning components and online vignettes continue the clinical perspective, and encourage self-directed as well as cooperative learning.

MSCI 6030

System Disorders I: This block, from Weeks 22 through 30, covers cardiovascular, pulmonary, renal, gastrointestinal, and hepatobiliary systems with integration of pathophysiologic processes, clinical diagnosis and therapy, and pharmacology of relevant therapeutic agents.

Block Number	Name/General Description
MSCI 6040	System Disorders II and Life Span Issues: This block, which occupies Weeks 31 through 38, covers the pathophysiology and clinical aspects of the major endocrine disorders and metabolic diseases. Other topics include clinical aspects of men and women’s health, most notably the pathophysiology of the reproductive system. The block includes segments on clinical dermatology, ophthalmology, and the aging patient.
MSCI 6080	Early Clinical Experience II (4 Year Program Only): This block builds on the skills learned in Early Clinical Experience I with more advanced communication techniques, history taking, physical examination and ongoing reinforcement of verbal presentation skills. Students are now assigned to community physicians as individual mentors and attend the mentor’s clinic one ½ day each month to practice these advanced skills. They continue to explore professionalism and ethics and develop awareness of cultural and psychosocial issues using a variety of methods: lectures, workshops, small group activities, personal reflection and direct patient encounters.
MSCI 5090	Basic Medical Spanish A 15-hour web-based course, which includes two interactive sessions to be completed by March 15 of Year 2. The goal of this course is to promote patient rapport and the cultural comfort of the student caring for our Spanish-speaking patients. Grading will be Pass-Fail and will be entered on student transcripts.

Between Year 1 and 2 there are opportunities for clinical or research elective experiences and international health electives.

FMAT specific Courses

Course Number	Name/General Description
MFAM XXXX	Family Medicine Accelerated Track 1 (The Science of Family Medicine) This 8-week concentrated course will be taken during the summer between Year 1 & Year 2 under the supervision of Family Medicine faculty. This course will prepare students to begin the Longitudinal Family Medicine Clerkship during Year 2. Students in the regular curriculum take four integrated blocks in Year 2 that cover areas of neurobiology and pathophysiology of human disease. The F-MAT 1 course will cover topics from these courses that are particularly important for students during the Family Medicine Clerkship.
MFAM XXXX	Family Medicine Accelerated Track 2 (Longitudinal Family Medicine Clerkship) This will be a longitudinal Family Medicine Clerkship that introduces students to the care of the undifferentiated ambulatory patient.

Emphasis will be on clinical problem-solving, management of common problems, and prevention and health promotion. Learning objectives from Early Clinical Experience II and the Geriatrics rotation will also be incorporated.

Year 1 and 2 Electives

Course Number	Name/General Description
MCBA 5030	<p>Surgical Anatomy This course will provide an introduction and overview to surgical approaches to different regions of the human body from a clinical perspective. Students will observe and assist surgeons with surgical dissections of cadavers. The experience in Surgical Anatomy will provide students with a relevant correlation of anatomy as applied to surgical procedures.</p>
MFAM 5012	<p>The Patient Experience in Film Monthly viewing of a film depicting a unique aspect of the patient experience. A smaller group of students enrolled in the elective will be assigned to preview the film and lead the post-film discussion (on a rotating basis). At the end of the year each student will select a film to watch independently and write a report on the unique aspect of the patient experience it portrays and how it will affect their future practice in medicine.</p>
MIDS 5014 MIDS 6014	<p>International Health Elective This elective is site specific with site specific learning objectives. This elective allows students to experience the challenges of health care delivery with a required physician supervisor/ evaluator in an underserved international setting for 4 weeks.</p>
MIDS 6015	<p>Clinical Research Elective At the beginning of the elective, each student will be assigned to a nurse coordinator and will be increasingly involved in working with that coordinator on the studies they are running. An opportunity will be given for the students to choose between various ongoing studies, but this must be done early since they must have passed the CITI training program and have IRB approval to participate in individual studies. Each student should be involved both with studies involving human subjects and those involving chart reviews. It would be anticipated that the students would receive authorship on any publication resulting from studies on which they are involved, provided that their participation is meaningful. Early in the elective, there will be an emphasis on didactic material beginning with discussions about the regulations and ethical considerations related to research in humans, the background for these and the role played by the IRB and an Office of Research Integrity. This will be followed by sessions on how to develop the proposal for a research project from conception of the idea through formulation of a hypothesis and specific aims, compiling the background, constructing the appropriate methods and analysis of results and, finally, a discussion of the potential significance. It will be expected that each student will develop a proposal/protocol during the</p>

elective with an ongoing active critique process.

Year 3 (4 Year and FMAT Programs)

	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
Year 3 48 weeks	Family Medicine		Internal Medicine		Obstetrics/ Gynecology		Pediatrics		Psychiatry		Surgery	
Focus: Patient Assessment	Continuity Clinic Experience											
	Integration Seminar											

In Year 3 students move to the clinical arena on one of our three campuses: Lubbock, Amarillo or Permian Basin. Each student focuses on one clinical discipline at a time, and rotates through six eight-week clerkships in Internal Medicine, Surgery, Family Medicine, Obstetrics/Gynecology, Pediatrics, and Psychiatry. Students also have a year-long Continuity Clinic experience two half days a month where they follow a continuity panel of patients with a supervising clinical faculty member and each student participates in the Integration Seminar. Our School actively promotes and monitors the quality and comparability of the educational experiences on each of the campuses and maintains equivalent methods of evaluation. Students at each campus are tested at the end of each clerkship with an Objective Structured Clinical Examination (OSCE) and the same external national examination. Our students are thus compared with national norms as well as with each other on the three campuses. The values are well correlated and can be described as a single-campus experience. We also closely monitor the number and diversity of patients to ensure the necessary breadth of exposure to clinically challenging patients

Clerkship Number	Name/General Description
MFAM 7094 (Amarillo) MFAM 7094 (El Paso) MFAM 7094 (Lubbock) MFAM 7094 (Permian Basin)	Family Medicine (4 Year program only) An eight-week core clerkship introducing students to the care of the undifferentiated ambulatory patient. Emphasis is on clinical problem-solving, management of common problems, and prevention and health promotion.
MINT 7093 (Amarillo) MINT 7093 (El Paso) MINT 7093 (Lubbock) MINT 7093 (Permian Basin)	Internal Medicine In this eight-week rotation, the student participates as a member of the ward team, honing skills in performing histories and physicals, and in the collection, integration, and documentation of information for comprehensive diagnosis. Concepts of practical medical therapeutics and management are presented, but emphasis is on understanding pathophysiology and accurate diagnosis. Outpatient experience is provided in a community setting.
MOBG-7093 (Amarillo) MOBG-7093 (El Paso) MOBG-7093 (Lubbock) MOBG 7093 (Permian Basin)	Obstetrics-Gynecology A study of the treatment of female patients by the primary care practitioner. Obstetrics-gynecology spans the entire age range of womanhood and is extensively health-oriented with emphasis on prevention of illness and on surgical and obstetrical techniques. The quality of human life is emphasized.

Year 3 Clerkships continued...

Clerkship Number	Name/General Description
MPED-7094 (Amarillo) MPED-7094 (El Paso) MPED-7094 (Lubbock) MPED 7094 (Permian Basin)	<p>Pediatrics</p> <p>During the clerkship, students rotate through the pediatric inpatient, ambulatory care and newborn nursery services, participating in the evaluation and management of children with a variety of problems. Emphasis is placed on a comprehensive approach to total child, including his/her family and environment. Learning is augmented by a lecture series and various case conferences coupled with close faculty support and supervision.</p>
MPSY-7094 (Amarillo) MPSY-7094 (El Paso) MPSY-7094 (Lubbock) MPSY 7094 (Permian Basin)	<p>Psychiatry</p> <p>The primary goals of this rotation are to provide educational experiences that facilitate continued learning regarding the diagnosis and management of psychiatric illness and clinical experiences which allow the student to further develop skills in evaluation and treatment of selected patients. The core clinical experiences for students consist of significant exposure to inpatient psychiatry, consultation psychiatry, ambulatory psychiatry, child and adolescent psychiatry, ambulatory neuropsychiatry/behavioral neurology, and on-call emergency room coverage.</p>
MSUR-7093 (Amarillo) MSUR-7093 (El Paso) MSUR-7093 (Lubbock) MSUR 7093 (Permian Basin)	<p>Surgery</p> <p>An introduction to the pathophysiology of surgical diseases and the principles and techniques used in their diagnosis and management. The Clerkship includes participation in pre- and post-operative patient care, operating room and clinic experience as a member of a team of the surgical faculty.</p>
MSCI-7091 (Amarillo) MSCI-7091 (El Paso) MSCI-7091 (Lubbock) MSCI-7091 (Permian Basin)	<p>Continuity Clinic Experience</p> <p>This experience builds on the clinical skills of the Early Clinical Experience Courses in Years 1 and 2 and provides faculty supervision for students caring for a panel of continuity patients two afternoons a month. Objectives include skills in patient-centered care, enhanced communication and professionalism, and diagnosis and management of common urgent and chronic ambulatory problems.</p>
MSCI-7092 (Amarillo) MSCI-7092 (El Paso) MSCI-7092 (Lubbock) MSCI-7092 (Permian Basin)	<p>Integration Seminar – Student Grand Rounds</p> <p>The Integration Seminar is a Student Grand Rounds presented by MSIII students on each campus. The overarching objective of the seminar is to provide students with the opportunity to explore in depth a clinical case and to reapply the knowledge gained over the first two years of medical school to this case. The students work as a team to present a cogent, integrated and interactive seminar to their peers, students from other years and faculty while developing their presentation skills and their ability to interpret and evaluate data from multiple sources. The directors of the Integration Seminar choose the cases and the students are divided into six groups, each of which is assigned one case. The Integration Seminar occurs once per clerkship period. The Directors advise the students on interpretation and presentations skills and coordinate the seminar to ensure participation of the greatest number of students and faculty in the audience. Grading will be Honors/Pass/Fail</p>

as determined by the Campus Seminar Director.

Year 4 (4 Year Program only)

Each regional campus offers both required and elective rotations. All students complete 2 required rotations: a one-month rotation in Neurology and a 2 week rotation in Geriatrics. Students also complete three selective experiences each of which can be performed in one of several clinical departments based on specific student interests. The selectives consist of a one-month Sub-Internship chosen from Family Medicine, Internal Medicine, Pediatrics or Surgery; a one month Critical Care selective chosen from Emergency Medicine, Internal Medicine, Surgery, or Pediatrics; and a 2 week selective in an ambulatory setting chosen from Family Medicine, Internal Medicine, Obstetrics and Gynecology, Pediatrics and Psychiatry. The remainder of the fourth year curriculum consists of four months of broadly-based elective experiences. Each student's fourth year program is reviewed by a faculty committee to ensure they receive a complete and appropriate educational experience.

	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
Year 4	Neuro	Ger 2 wks	Subl	Critical Care ER - ICU	Elective	Elective	Elective	Elective	Elective 2 wks	Available Time		
32 weeks	4 wks	Amb 2 wks	4 wks	4 wks	4 wks	4 wks	4 wks	4 wks	Elective 2 wks	12 wks		
Focus: ACGME Competencies												

Year 4 Required Rotations

Course Number (Campus)	Name/General Description
MFAM-806E (Amarillo) MFAM-806E (El Paso) MFAM-806E (Lubbock) MFAM-806E (Permian Basin)	Geriatric Medicine This rotation is an introduction to geriatric assessment and evaluation. Topics covered are Physiology of aging Demographics of the aged Long-term care policies Commonly used geriatric evaluation scales Evaluation of function in the aged Long-term care.
MNEU-8061 (Amarillo) MNEU-8061 (El Paso) MNEU-8061 (Lubbock) MNEU-8061 (Permian Basin)	Neurology This rotation exposes the student to basic principles of diagnosis and management of common neurologic conditions. Students learn skills in conducting neurologic exams, identifying signs and symptoms of neurologic disorders, and integrating signs and symptoms into syndromes. Students learn about basic neurologic disorders and neurologic complications of systemic conditions.

Year 4 Selective Rotations

Ambulatory

Family Medicine

Course Number (Campus)	Name/General Description
MFAM-8061 (Amarillo) MFAM-8061 (El Paso)	Family Medicine Senior (Ambulatory) Rotation This rotation prepares students for the transition into a residency program

MFAM-8061 (Lubbock)
MFAM-8061 (Permian Basin)

by increasing exposure to the care of patients in the outpatient clinic setting. Students will provide care to a broad range of patients of all ages while refining their examination, diagnostic and communication skills. The clinical experience is combined with seminars focusing on various patient care topics, including a diabetes workshop and self-study, to enhance the learning experience.

MFAM-806G (El Paso)

Community Medicine

This selective/elective provides a comprehensive community experience for students and focuses on clinical management and comprehensive primary care in a rural underserved setting. The course affords an opportunity to bring together concepts and experiences developed in Internal Medicine and Family Medicine and to work in a multi-discipline setting with other health care professionals and trainees. Emphasis will be placed on patient care in the ambulatory setting with the student working directly with the faculty preceptor in providing primary care to a wide range of patients. The student will see a multitude of clinical problems that allows the development of strong management skills.

MFAM-806K (Lubbock)

Student Health and Adolescent Medicine

This selective/elective allows the student to develop their skills and knowledge of student health and adolescent medicine. Emphasis is on the application of clinical skills with the demands and limits of a university student health clinic.

Internal Medicine

Course Number (Campus)

Name/General Description

MINT-806W (Amarillo)
MINT-806W (Lubbock)
MINT-806W (Permian Basin)

Internal Medicine Ambulatory Rotation

This rotation in internal medicine's multispecialty clinic prepares the students in ambulatory medicine where they get exposed to outpatients in various disciplines of medicine. The aim is to make students more comfortable and confident in doing focused and time limited interaction in an outpatient setting which most of them are going to practice in future. Highly recommended for students pursuing career in internal or family medicine.

Obstetrics & Gynecology

Course Number (Campus)

Name/General Description

MOBG-8061 (Amarillo)
MOBG-8061 (El Paso)
MOBG-8061 (Lubbock)
MOBG-8061 (Permian Basin)

Ob/Gyn Senior (Ambulatory) Rotation

This rotation is a compilation of the Benign Gynecology elective and OB/Maternal-Fetal elective. It includes office and hospital based OB/GYN, family planning, and primary care for women. Two weeks will be spent on each service. Lectures and resident education conferences will be attended as well as discussions with the attending physicians and resident physicians on assigned reading topics.

Pediatrics

Course Number (Campus)

Name/General Description

MPED-8061 (Amarillo)
MPED-8061 (El Paso)
MPED-8061 (Lubbock)
MPED-8061 (Permian Basin)

Pediatrics Senior (Ambulatory) Rotation

The purpose of this rotation is to familiarize the student with preventive pediatrics and parent education, acute intervention in common childhood diseases and follow-up visits, and evaluation of patients in an outpatient consultation service.

Psychiatry

Course Number (Campus)	Name/General Description
MPSY-8061 (Amarillo) MPSY-8061 (El Paso) MPSY-8061 (Lubbock) MPSY-8061 (Permian Basin)	Psychiatry Senior (Ambulatory) Rotation This rotation is designed to give students experience in evaluation, diagnosis, and management of psychiatric illnesses in a variety of settings. Students may select Adolescent Psychiatry, Inpatient Psychiatry, or Outpatient Psychiatry.
MPSY-806D (Amarillo) MPSY-806D (Lubbock)	Child/Adolescent Psychiatry This selective/elective is designed to give the student clinical experience with outpatient evaluation of child and adolescent patients seen at the TTUHSC Department of Neuropsychiatry and Behavioral Sciences.

Critical Care

Emergency Medicine

Course Number (Campus)	Name/General Description
MEME-806B (El Paso)	Emergency Medicine This selective/elective is an introduction to emergency medicine and the evaluation of common emergencies. Instead of focusing on a single age group, a defined severity of illness or a discrete body of medical knowledge, the student will be expected to look at the big picture. The student will be asked to make decisions regarding management based upon available clinical information and limited laboratory or radiological tests in a limited time environment. Given these restrictions, emphasis will be on the approach to the problem, its management and disposition, rather than a precise diagnosis.
MEME-806C (El Paso)	Emergency Medicine Critical Care Encountering a wide variety of patients with emergent urgent and routine medical, surgical, gynecological and psychiatric complaints.

Internal Medicine

Course Number (Campus)	Name/General Description
MINT-806G (Amarillo) MINT-806G (El Paso) MINT-806G (Lubbock) MINT-806G (Permian Basin)	MICU/CCU This selective/elective utilizes patients admitted to the intensive care units within various teaching hospitals. The student will gain experiences in managing common medical emergencies, including cardiopulmonary arrest, drug overdose, hypertension, acute myocardial infarction, cardiogenic shock, congestive heart failure, renal failure, and diabetic ketoacidosis. The student is also expected to become proficient in the evaluation and management of common chest problems, including asthma, chronic obstructive pulmonary disease, pleural effusions, peri-operative complications, pneumonia, atelectasis, respiratory failure, pulmonary function tests, and chest x-rays, and to become familiar with the various types of mechanical ventilators, oxygen delivery systems, and methods of delivering inhaled medication.

Pediatrics

Course Number (Campus)	Name/General Description
MPED-806O (Amarillo) MPED-806O (El Paso) MPED-806O (Lubbock) MPED-806O (Permian Basin)	<p>Neonatal Intensive Care This selective/elective is designed to familiarize the student with perinatal-neonatal physiology, high-risk factors associated with neonatal disease pathophysiology diagnosis and management of common neonatal problems, dealing with acute neonatal emergencies, and communicating with parents of high-risk neonates. The students' primary responsibility will be the total management and supervision of assigned patients. Students will also be expected to participate in daily rounds, night call, weekly discussion group on neonatal-perinatal diseases and presentation of a review on a selected aspect of neonatal-perinatal medicine towards the end of the rotation.</p>
MPED-806P (Amarillo) MPED-806P (El Paso) MPED-806P (Lubbock)	<p>Pediatric Intensive Care The student will be exposed to all pediatric critical care: Sepsis, Trauma, ARDs, and all potentially or life-threatening illnesses. The student will act as an acting intern with direct patient care responsibilities. There will be no outpatient, ward, or clinic responsibilities except Continuity Clinic. The student will make daily rounds with the attending physicians. The student will have an opportunity to perform procedures such as spinal taps, A-line, central lines, chest tubes, intubation, and catheter placement. Emphasis will be placed on physiology, recognition of common acute life-threatening injuries-illnesses, and ventilator management.</p>

Surgery

Course Number (Campus)	Name/General Description
MSUR-806B (Amarillo) MSUR-806B (El Paso) MSUR-806B (Lubbock) MSUR-806B (Permian Basin)	<p>Cardiovascular Surgery Through the direct pairing with a practicing Clinical Faculty Cardio-Vascular/Thoracic Surgeon (CVTS) the student will participate as a member of this team in the provision of inpatient and outpatient (office/clinic) care, and emergency department and operating room activities. The selective/elective will provide the student an exposure to the gamut of basic principles of surgical evaluation, diagnosis and management as well as those principles specific to the clinical techniques of diagnosis and surgical management of congenital and acquired cardiovascular and thoracic disease.</p>
MSUR-806C (Amarillo) MSUR-806C (Lubbock) MSUR-806C (Permian Basin)	<p>Emergency Medicine This selective/elective is an introduction to emergency medicine and the evaluation of common emergencies. Instead of focusing on a single age group, a defined severity of illness or a discrete body of medical knowledge, the student will be expected to look at the big picture. The student will be asked to make decisions regarding management based upon available clinical information and limited laboratory or radiological tests in a limited time environment. Given these restrictions, emphasis will be on the approach to the problem, its management and disposition, rather than a precise diagnosis.</p>
MSUR-806O (Amarillo) MSUR-806O (El Paso) MSUR-806O (Lubbock)	<p>Surgical Intensive Care This selective/elective is an experience in the management of surgical patients in the intensive care unit.</p>

Course Number (Campus)	Name/General Description
MSUR-806U (Amarillo) MSUR-806U (Lubbock)	<p>Surgical Wound Care</p> <p>This selective/elective is designed to provide basic and advanced clinical experience in the management of burn and wound patients to include critical care, burn and wound evaluations, and management. It will include the diagnosis and management of complex acute and chronic wounds as well as nutrition support for critically ill or injured patients. The student will learn basic and advanced techniques in wound healing. They will have the opportunity to become experienced with writing total parenteral nutrition orders as well as decisions using enteral nutrition for nutritional support. The course experience is structured to be of value to students interested in both primary care as well as surgical specialties.</p>

Sub-Internship

Family Medicine

Course Number (Campus)	Name/General Description
MFAM-806B (Amarillo) MFAM-806B (Lubbock) MFAM-806B (Permian Basin)	<p>Family Medicine Sub-Internship</p> <p>Patients of all ages, of both sexes, and with diverse medical problems will be managed in this sub-internship. Emphasis will be given to the total management of the patient, beginning with the ambulatory presentation, continuing through hospitalization and following dismissal from the hospital-coordinated, comprehensive, continuing medical care. The student will be responsible for complete evaluation of the patient, including initial history and physical examination, cost effective utilization of laboratory, x-ray and other procedures and the formulation and pursuit of the management plan, including cogent utilization of consultation/referral services. Emphasis will also be given to participation in community resources, which provide ongoing care of the patient, including Hospice and community health centers. Experience is afforded in the Family Practice Center, the inpatient service of family medicine, certain area nursing homes, and on occasion, in the home of the patient. The student will function with Family Practice residents under the direction of the Family Medicine faculty member assigned to the inpatient service and other Family Medicine faculty members.</p>

Internal Medicine

Course Number (Campus)	Name/General Description
MINT-806P (Amarillo) MINT-806P (El Paso) MINT-806P (Lubbock) MINT-806P (Permian Basin)	<p>Internal Medicine Sub-Internship</p> <p>This ward-based, primary care sub-internship provides the student an individualized, case-oriented experience as a sub-intern on a general medicine ward service, designed to be the natural extension of the third-year clerkship. Each student will work closely with a senior resident, have primary patient responsibility, take night call with his/her team, have patient care responsibilities like an intern with close supervision by the senior resident, be assigned readings and give mini-lectures on</p>

selected subjects, and attend the regularly scheduled teaching conferences of the Department of Internal Medicine. This sub-internship is strongly recommended for students planning to pursue a career in Internal Medicine.

Pediatrics

Course Number (Campus)	Name/General Description
MPED-806V (Amarillo) MPED-806V (El Paso) MPED-806V (Lubbock)	Pediatric Sub-Internship The student will work as a member of a team caring for patients admitted to the pediatric inpatient service. During this elective, the student will have an opportunity to learn to formulate problem lists, management, and follow-up plans for hospitalized pediatric patients. The student assumes the role of extern and takes call with the residents.

Surgery

Course Number (Campus)	Name/General Description
MSUR-806K (Amarillo) MSUR-806K (El Paso) MSUR-806K (Lubbock) MSUR-806K (Permian Basin)	General Surgery Sub-Internship The student will serve as an extern on the surgical service and participate in the care of surgical patients in the emergency room, surgical wards, operating room, and clinic. Pre- and post-operative care and the management of patients in the Surgical Intensive Care units will be stressed. Assignments to selected clinical faculty preceptors are also available. Students will take in-house call.

Year 4 Elective Rotations

(Note that rotations/selectives described above can also be taken as electives)

Anesthesiology

Course Number (Campus)	Name/General Description
MANE-806A (Amarillo) MANE-806A (El Paso) MANE-806A (Lubbock) MANE-806A (Permian Basin)	Anesthesiology This elective is for students interested in anesthesiology and the insights this discipline gives into the application of physiological and pharmacological principles to the care of patients in acute life-threatening situations. Daily lectures, laboratory demonstration, and the pre-operative and post-operative care of patients undergoing anesthesia will enable the student to acquire the basic skills necessary to care for the unconscious and critically ill patient during anesthesia and other similar situations. These skills include airway management, ventilatory support, cardiovascular support, fluid replacement, and intravenous techniques. The student will also have an opportunity to learn the fundamentals of respiratory therapy and its application to patient care.
MANE-806B (Lubbock)	Anesthesiology and Pain Center The student will evaluate patients using common pain assessment tools and a focused physical examination under the supervision of the Pain Attendings and Pain Management Fellows in the clinic. They will develop algorithms for treatment including pharmacologic, non-interventional and interventional therapies. The remaining time will be spent observing pain procedures in the operating room and the procedure clinic.
MANE-806C (Lubbock)	Anesthesiology Research Interested students must commit to a definable goal with an end product (presentation, literature review, etc.) completed at the end of the rotation. The project should relate to ongoing basic, translational or clinical studies in progress. The applicant must submit resume and indicate interest at least 3 months before wanting to start the rotation. The student must be making satisfactory progress through medical school.

Cell Biology

Course Number (Campus)	Name/General Description
MCBA-806B (El Paso) MCBA-806B (Lubbock)	Advanced Gross Anatomy I This elective is a two-week, in-depth, self-directed review of a selected area of gross anatomy including: head and neck, thorax and abdomen, pelvis and perineum, extremities and back, or anatomical imaging depending on the needs of the student.
MCBA-806C (El Paso) MCBA-806C (Lubbock)	Advanced Gross Anatomy II This is a four-week, in-depth, self-directed gross anatomical study (review and dissection) devoted to one of the following areas of emphasis: head and neck, thorax and abdomen, pelvis and perineum, extremities and back, or anatomical imaging depending on the needs of the student. This elective may be repeated for credit if another area of emphasis is selected.

Dermatology

Course Number (Campus)	Name/General Description
MDER-806A (Amarillo) MDER-806A (El Paso) MDER-806A (Lubbock) MDER-806A (Permian Basin)	<p>Dermatology Clinics</p> <p>This elective is designed to expose the student to a wide variety of dermatologic conditions with the expectation that at the conclusion of the experience common disorders will be recognizable. The student will participate in clinics (few inpatient consults) observing a variety of dermatologic disorders and dermatologic procedures in both the adult and pediatric patient population. Also offered is exposure to dermatopathology and dermatologic surgery, thus allowing clinicopathologic correlation.</p>
MDER-806C (Lubbock)	<p>Dermatopathology</p> <p>This elective is designed to give 4th year medical students exposure to and experience in dermatopathology.</p>

Emergency Medicine

Course Number (Campus)	Name/General Description
MEME-806A (El Paso)	<p>EMS and Pre-Hospital Care</p> <p>This elective is designed to provide instruction and experience in pre-hospital emergency medical care and EMS systems. The curriculum includes riding with the EMS units, working with EMS administration, observing and participating in EMS communications, teaching and participating in EMS training and continuing education sessions, and working closely with medical direction. The objectives are to familiarize the student with physician medical direction of EMS systems and pre-hospital care; to provide exposure to disaster planning and management; to involve the student in EMS training and continuing education as both instructor and participant; to become familiar with EMS radio communications including telemetry, the 911 system, call screening, and aspects of dispatch; to provide experience in pre-hospital emergency care by riding on ambulances and participating in-patient care; to observe EMS administration including operations and budgetary considerations; to be exposed to ongoing quality control mechanisms in the pre-hospital setting; and to provide the student with didactic sessions on a number of aspects of EMS systems and pre-hospital care.</p>

Family Medicine

Course Number (Campus)	Name/General Description
MFAM-806A (Amarillo) MFAM-806A (El Paso) MFAM-806A (Lubbock) MFAM-806A (Permian Basin)	<p>Family Medicine Preceptorship</p> <p>Students are assigned to a variety of practices within the urban or rural area for a supervised exposure to day-to-day practice problems. Emphasis is on the application of clinical skills within the demands and limits of actual practice. Program is sponsored by the Texas Academy of Family Practitioners. Applications must be completed several months in advance.</p>
MFAM-806-M (Lubbock)	<p>Palliative Care</p> <p>This elective allows students to gain additional skills and experience with end-of-life care in a variety of hospice and palliative care settings. Students have the opportunity to work with multidisciplinary palliative care teams that provide holistic medical management of persons near</p>

death, with a special emphasis on symptoms and decision management at the end of life.

Interdisciplinary

Course Number (Campus)

Name/General Description

MIDS-803C (Amarillo)

MIDS-803C (El Paso)

MIDS-803C (Lubbock)

MIDS-803C (Permian Basin)

Biomedical Information Management

This elective is designed to provide the student with basic competencies in biomedical information management. The student is primarily taught the basics of searching the biomedical literature via PubMed. Searching EBM Reviews, MICROMEDEX, PDQ, TOXNET, and other biomedical literature databases are addressed as needed. The student is assigned take-home practice exercises to strengthen their literature searching skills. At the end of the rotation, the student is given a brief practical examination of his/her abilities to search these tools.

MIDS-806G (Amarillo)

MIDS-806G (El Paso)

MIDS-806G (Lubbock)

MIDS-806G (Permian Basin)

International Health

This elective is site specific with site specific learning objectives. This elective allows students to experience the challenges of health care delivery with a required physician supervisor/ evaluator in an underserved international setting for 4 weeks.

MIDS-806H (El Paso)

MIDS-806H (Lubbock)

Clinical Research

At the beginning of the elective, each student will be assigned to a nurse coordinator and will be increasingly involved in working with that coordinator on the studies they are running. An opportunity will be given for the students to choose between various ongoing studies, but this must be done early since they must have passed the CITI training program and have IRB approval to participate in individual studies. Each student should be involved both with studies involving human subjects and those involving chart reviews. It would be anticipated that the students would receive authorship on any publication resulting from studies on which they are involved, provided that their participation is meaningful. Early in the elective, there will be an emphasis on didactic material beginning with discussions about the regulations and ethical considerations related to research in humans, the background for these and the role played by the IRB and an Office of Research Integrity. This will be followed by sessions on how to develop the proposal for a research project from conception of the idea through formulation of a hypothesis and specific aims, compiling the background, constructing the appropriate methods and analysis of results and, finally, a discussion of the potential significance. It will be expected that each student will develop a proposal/protocol during the elective with an ongoing active critique process.

Internal Medicine

Course Number (Campus)

Name/General Description

MINT-806A (Amarillo)

MINT-806A (El Paso)

Internal Medicine

This elective is designed for both the student interested in internal medicine and the student interested in other specialties who would like to strengthen his/her background in medicine. The primary emphasis of this elective is on diagnostics, preventive medicine, and successful outpatient

management of chronic, progressive diseases such as diabetes mellitus and hypertension. Selected areas such as geriatrics, home care, office ENT, ophthalmology, gynecology, and orthopaedics may be added as suits the needs of the student.

Internal Medicine Year 4 Elective Rotations continued...

Course Number (Campus)	Name/General Description
MINT-806B (Amarillo) MINT-806B (El Paso) MINT-806B (Lubbock) MINT-806B (Permian Basin)	Cardiology This ward-based consult service elective consists of daily review of electrocardiograms and echocardiograms, cardiology consultation rounds, Cardiac Care Unit teaching rounds, weekly cardiology teaching conferences, and cardiac catheterization conferences. The student will prepare a review of an assigned topic for the weekly cardiology conferences. Bedside cardiovascular examination and management will be stressed.
MINT-806C (Amarillo) MINT-806C (El Paso) MINT-806C (Lubbock) MINT-806C (Permian Basin)	Endocrinology This elective includes inpatient and outpatient care, weekly conferences in clinical and basic endocrinology, and research activity if desired. The student will have an opportunity to work-up and manage patients with a wide variety of both chronic and acute endocrinological and metabolic disorders. Patients with hypertension, especially those known or suspected to be caused by an endocrine disease, will also be seen.
MINT-806D (Amarillo) MINT-806D (El Paso) MINT-806D (Lubbock) MINT-806D (Permian Basin)	Gastroenterology This elective provides opportunities for learning office practice of gastroenterology including evaluation of patients with peptic ulcer disease, malabsorption, liver disease, etc. Extensive outside reading will be required. The student may be involved in direct patient care in a hospital setting.
MINT-806E (El Paso) MINT-806E (Lubbock) MINT-806E (Permian Basin)	Infectious Diseases This ward-based elective offers the student an opportunity to evaluate and care for patients with infectious diseases and to gain an understanding of the clinical microbiology procedures important in the care of these patients. HIV and AIDS will be discussed. Each student will be encouraged to prepare and present one seminar or write a paper on a subject of his/her choice. Time for independent study will be allowed.
MINT-806F (Amarillo) MINT-806F (El Paso) MINT-806F (Lubbock) MINT-806F (Permian Basin)	Oncology/Hematology This elective provides exposure to clinical and laboratory diagnosis as well as management of neoplastic and hematologic disorders. Representative case reviews are used to supplement current clinical material where appropriate. Peripheral blood, bone marrow, and tumor morphology are emphasized as well as clinical staging and chemotherapy. There will be exposure as to how new investigational drugs are tried and protocol treatments are given to cancer patients. Students can also obtain concept in bone marrow transplantation including both clinical and laboratory processing of bone marrow cells. Options are available for major focus in ambulatory or ward setting, or both.
MINT-806H (Amarillo) MINT-806H (El Paso) MINT-806H (Lubbock) MINT-806H (Permian Basin)	Nephrology This elective offers clinical experience in the diagnosis and management of patients with acute and chronic renal failure, hypertension, fluid and electrolyte imbalances, acid base disturbance, parenchymal renal diseases, etc.

Course Number (Campus)	Name/General Description
MINT-806K (Amarillo) MINT-806K (Lubbock) MINT-806K (Permian Basin)	<p>Pulmonary Medicine</p> <p>This elective is offered to the student for clinical experience in pulmonary disorders, emphasizing acute and chronic respiratory failure, intensive respiratory care, and interpretation of pulmonary function tests and chest x-rays.</p>
MINT-806L (El Paso) MINT-806L (Lubbock) MINT-806L (Permian Basin)	<p>Rheumatology</p> <p>This elective offers an in-depth look at the clinical array of rheumatologic disorders. Students will be exposed to inpatients and outpatients with emphasis on diagnosis and long-term management of common rheumatic diseases. Depending on the student's level of proficiency and interest, the student may be allowed to participate in procedures such as joint aspiration and injection, and will interpret synovial fluid studies. Students will learn the correct indications and monitoring of common rheumatic drugs and the fundamentals of rheumatic rehabilitation.</p>
MINT-806M (Lubbock)	<p>Allergy/Immunology</p> <p>This ambulatory consult service elective offers the student an opportunity to evaluate and manage patients with allergic disorders, such as allergic rhinitis, bronchial asthma, urticaria/angioedema, food and drug allergy, stinging insects allergy, immunodeficiency disorders, etc. Different topics in allergy and clinical immunology will be discussed two to three times per week. Students may also take a combined Ambulatory Allergy, Rheumatology, and Clinical Immunology rotation.</p>
MINT-806S (Amarillo)	<p>Radiation Oncology</p> <p>The field of radiation oncology is an intellectually challenging field, providing curative therapy and close longitudinal doctor-patient relationship. This elective may be taken by itself or combined with the hematology-oncology elective.</p>
MINT-806T (Amarillo) MINT-806T (Lubbock) MINT-806T (Permian Basin)	<p>Clinical & Laboratory Research</p> <p>Students may elect to adopt an independent research project in either the laboratory or the clinical area. The student will be instructed in how to review the literature, how to apply the scientific method to clinical and laboratory problems, how to analyze data, and how to write scientific papers. The student will discuss with the Faculty research sponsor detailed plans for the research project at least two months prior to the proposed initiation of the elective. A minimum of two months is needed to do a research project. This project can only be undertaken by special arrangement.</p>
MINT-806U (Amarillo)	<p>Hospice</p> <p>The student will observe hospice patients in both inpatient and outpatient settings, making daily inpatient rounds, accompanying hospice team members on some home visits, and meeting with the hospice team to discuss management problems. Reading will focus on common management problems, with an emphasis on competent pain management.</p>
MINT-806X (El Paso)	<p>Clinical Medicine I</p> <p>The purpose of this rotation is to train and allow MS4 to function effectively as a PGY-1. Clinical Medicine I, an innovative and</p>

comprehensive training program, is developed and sponsored by the Office of Faculty Affairs and Development of Texas Tech University HSC, Paul L. Foster School of Medicine at El Paso. This rotation provides a unique opportunity for our trainees (students, residents and faculty) to work closely with a group of distinguished faculty to develop and enhance clinical skills, critical decision making and Evidence-Based Medicine-directed patient management. Learners will also have opportunities to practice on state-of-the-art clinical simulators.

Internal Medicine Year 4 Elective Rotations continued...

Course Number (Campus)	Name/General Description
MINT-806Y (El Paso)	<p>Clinical Medicine II This four-week rotation is the follow-up of Clinical Medicine I. This advanced course will further enhance the medical knowledge and clinical skills of the trainee. This course also provides training on pediatric and geriatric patients. To qualify for this rotation, trainees are required to take Clinical Medicine I first. Learners will have unique opportunities to be trained with state-of-the art clinical simulators.</p>
MINT-816A (El Paso) MINT-816A (Lubbock)	<p>Geriatrics This rotation will allow students to learn about the principles of aging and become proficient in the management of certain Geriatrics syndromes.</p>
MINT-816C (Amarillo)	<p>Women's Health Student Women's Health is a division of the Department of OB/GYN with full-time faculty of board-certified internists Marjorie Jenkins, M.D. and Joanna Wilson, D.O. Departments with faculty participating in student instruction during the rotation include Internal Medicine, General Surgery, and Radiology. The rotation objectives incorporate Texas Tech's vision, goals, and objectives as stated in the Institutional Educational Vision, Goals, and Objectives publication.</p>



Obstetrics and Gynecology

Course Number (Campus)

Name/General Description

MOBG-806B (Lubbock)

Maternal-Fetal Medicine

This elective will introduce the student to high-risk obstetrics with specific exposure to the clinical and laboratory diagnosis of medical, surgical, and obstetric complications of the "high-risk" pregnancy. The course is not intended to generate surgical manual skills, but rather cerebral and interpretive knowledge. Emphasis will be placed on ultrasonographic interpretation, invasive fetal testing, and antepartum care of this patient group, both in the clinic and hospital setting. Specific readings will be assigned in the areas of obstetrical anesthesiology, premature labor, and suppression of said labor, induction of labor, metabolic diseases of pregnancy, hypertension and cardiac diseases in pregnancy, etc. Lectures and resident education conferences will be attended as well as discussion with the attending physician and resident physician of the OB team on assigned reading topics.

MOBG-806C (Lubbock)

Gynecologic Oncology/Gyn Surgery

This elective is for students interested in becoming more familiar with gynecologic operations and the multidisciplinary care of women with gynecologic malignancies. Specifically, experience will be obtained in the complex peri-operative and operative management of women with pelvic neoplasms. In addition, radiation treatment and planning the administration of chemotherapy will be practiced. Emphasis will also be placed on histopathologic diagnosis and correlation. The student will participate in the pre-operative and post-operative management of patients (both clinic and inpatient settings), in evaluating and treating patients (both in an emergency room and clinic setting), and gynecologic surgery. Post-operative care will provide an opportunity to learn wound care, respiratory support, rehabilitation, and resolution of post-operative ileus. The outpatient clinic training will include clinical medicine, as well as the "business of medicine." Periodic pathology conferences will be attended. Colposcopy procedures for cervical lesions will be covered. The student will be expected to make rounds with the GYN oncology team daily. Lectures and resident education conferences will be attended as well as discussion with the attending physician and resident physicians of the GYN oncology team on assigned reading topics.

MOBG-806E (Lubbock)

Endocrinology/Infertility

Students will be given opportunities to participate in the clinical care of patients with reproductive endocrine and infertility disorders and will improve the clinical knowledge base necessary for recognizing the problems of these patients as individuals. Students will be provided both clinical exposure to patients and the laboratory aspects of reproductive endocrine and infertility care and will be exposed to the emotional and psychological problems of the reproductive endocrine/infertility patient. Students will participate in all scheduled surgeries, see private patients with attending physician, consult in resident reproductive endocrinology clinic, learn to do inseminations, ovulation monitoring and induction protocols, participate in hysterosalpingogram, and observe management of in vitro fertilization. Lectures and resident education conferences will be attended as well as

discussions with attending physicians and resident physicians of the REI team on assigned reading topics.

Obstetrics and Gynecology Year 4 Elective Rotations continued...

Course Number (Campus)	Name/General Description
MOBG-806G (Amarillo) MOBG-806G (El Paso) MOBG-806G (Permian Basin)	<p>Obstetrics and Gynecology This elective includes experience in office and hospital obstetrics and gynecology, family planning, gynecological surgery, and formal and informal conferences. The schedule is flexible to accommodate special interest of the student.</p>
MOBG-806H (Permian Basin)	<p>Perinatal Medicine The student will gain experience in high-risk obstetrics clinic, antepartum unit, labor and delivery, and formal and informal conferences. The student will become knowledgeable in the antepartum and intrapartum diagnosis and treatment of medical and obstetrical complications of pregnancy, i.e., diabetes mellitus, hypertension, and pre-eclampsia. The student will also obtain experience with ultrasound. The schedule includes ward and clinic experience.</p>
MOBG-806I (Permian Basin)	<p>Rural Obstetrics The student will participate in rural outreach clinics with a faculty member and a nurse practitioner for the evaluation of prenatal patients at the clinics that have been established in Kermit, Monahans, Stanton, and McCamey. The student will become acquainted with the problems involved in providing care in a community where physician services are not readily available and how these problems can be addressed. The student will also become familiar with recognition of high-risk conditions that would require management with consultation from specialists in maternal-fetal medicine. The elective provides primarily clinical experience; night call on the Labor and Delivery Unit is recommended. The frequency is negotiable.</p>
MOBG-806J (Lubbock)	<p>Ob/Gyn Research This elective is designed to teach medical students selected fundamentals of research, as well as the provide opportunity to learn laboratory skills, and potentially participate in a research topic that will be presented at a national meeting. Students will learn how to perform hormone assays, radioimmunoassay, ELISAs, etc., data entry, and fundamentals of experimental design and statistics and be involved in a manuscript presentation. The opportunity to be involved in patient enrollment in studies also exists. Lectures and resident education conferences will be attended as well as discussions with the director of clinical research on assigned reading topics.</p>

Ophthalmology and Visual Sciences

Course Number (Campus)	Name/General Description
MOPH-806A (Amarillo) MOPH-806A (El Paso) MOPH-806A (Lubbock) MOPH-806A (Permian Basin)	Clinical Ophthalmology This elective will consist of an extensive exposure to clinical ophthalmology in a private practice setting. The student will be exposed to acute and chronic eye disease in addition to ophthalmic surgery. The main objective of this elective will be to teach the student how to conduct a thorough examination of the eyes and to orient the student to the common eye conditions that every physician should be able to diagnose and treat.
MOPH-806C (Lubbock)	Ophthalmology Research This elective introduces the student to the wide range of research possibilities in the area of visual sciences. A number of projects are available. Ongoing projects include Visual psychophysics and electrophysiology, Machine vision, Artificial intelligence applications, Digital imaging, Cell growth acceleration, including work with defensins and Substance P, Cell growth inhibition, including work with cell growth factor receptor blockers, Glaucoma, Glaucoma drug design, Cornea surgery, Vitreoretinal surgery, Instrument development and design, and Retrospective clinical studies.

Orthopaedic Surgery

Course Number (Campus)	Name/General Description
MORS-806A (Amarillo) MORS-806A (El Paso) MORS-806A (Lubbock) MORS-806A (Permian Basin)	Orthopaedic Surgery Students will be assigned to an orthopedic Faculty member and participate as a member of the orthopedic team in inpatient and outpatient care, emergency room, and operating room activities. Students should perform history and physical examinations upon all patients admitted by the attending surgeon and present these work-ups for evaluation. Each student will prepare a presentation for the teaching conference on a subject assigned by a Faculty member. The student will attend all orthopedic conferences. This elective is for those students interested in surgical specialties or an in-depth experience in orthopedic surgery.
MORS-806C (Lubbock) MORS-806C (Permian Basin)	Physical Medicine/Rehabilitation This rotation will introduce the basic concepts of physical medicine and rehabilitation. The student will learn techniques of obtaining a complete medical history for patients experiencing musculoskeletal pain. The rotation will also stress the development of an efficient and complete neurological and musculoskeletal examination that will assist the student in developing a differential diagnosis for future patients they may see. The student will be exposed to the total spectrum of the specialty.

Pathology

Course Number (Campus)	Name/General Description
MPAT-806A (Lubbock)	Diagnostic/Clinical Parasitology

Students will be familiarized with the microscopic and immunologic techniques for diagnosing parasitic and related diseases. The student will become familiar with the concordant pathology and clinical manifestations of these disease processes through informal presentations and study of case histories. No formal patient consults are required.

MPAT-806B (Lubbock)

Clinical Pathology

This elective will introduce the student to the effective clinical utilization and interpretation of laboratory tests. The student rotations in sub-disciplines of the clinical laboratories (clinical chemistry, hematology, blood banking, immunology, microbiology, virology, and histocompatibility testing) will be tailored to the student's interests. A clinical pathologist will provide formal and informal instruction in various aspects of the sub-discipline. The student will be encouraged to participate in a variety of problem-solving situations, and he/she can perform laboratory procedures under supervision if they wish. Concepts of quality control, testing limitations, biochemical profiling and normal values will be emphasized. Interesting clinical cases will be reviewed at a daily conference attended by students and pathologists. One formal presentation on a laboratory topic of the student's interest will be required in the four-week experience. Opportunities for independent study and involvement in on-going research will be available. Four-week experiences are preferred, but a two-week session can be arranged after discussion with the department.

MPAT-806C (Lubbock)
MPAT-806C (Permian Basin)

Surgical Pathology

This elective will introduce the student to the role of tissue examination in modern medicine. The student may be involved in a variety of experiences, including Gross examination of surgical pathology specimens, Processing and staining tissue, Frozen-section examination, Light microscopic diagnosis, Cytopathology, Autopsy pathology, and Electron microscopy. Clinical correlation of gross and microscopic findings is emphasized, and there will be a close affiliation with the surgical services and subspecialties. The proportion of time spent in these areas will be tailored to the student's interests. One formal presentation on a laboratory topic of the student's interest will be required in the four-week experience. Attendance and participation in a variety of surgical pathology and inter-service conferences are encouraged. Call is not generally required, but it may enhance the autopsy and surgical pathology experiences.

MPAT-806F (El Paso)

Anatomic and Clinical Pathology

The student will rotate through the sections of the clinical laboratory as follows: (a) Hematology - learn how to evaluate electronic differential counts and how to evaluate peripheral smears; (b) Microbiology- learn proper specimen collection/preservation techniques and how to interpret Gram stains; (c) Chemistry/Special Chemistry- learn how to interpret chemistry tests in the clinical context; (d) Serology- learn about interpretation/indications for serologic tests; and (e) Blood Bank- learn about pre-transfusion testing, indications for T/S vs. T/X match, and proper blood product handling and storage. Procedures and skills include: (a) Learn about handling of cytology/histology specimens and how to perform simple gross tissue examinations; (b) Learn basics of histology and routing cytology and (c) Observe FNA procedures and understand the indications for this procedure.

Pediatrics

Course Number (Campus)	Name/General Description
MPED-806A (Amarillo) MPED-806A (El Paso)	Adolescent Medicine This elective is designed to help students acquire good interviewing skills, a basic knowledge of adolescent physical and psychosocial development, an understanding of adolescent gynecology, basic skills in evaluation and management of sexually transmitted diseases, knowledge of nutrition and eating disorders in teenagers, management of common skin disorders, ability to identify common orthopaedic problems, knowledge of psychosocial disorders common in adolescents, and insight into the common medical complaints and problems in this age group as well as chronic illnesses seen in adolescents. Students will also gain insight into the legal issues and become familiar with the interface between the adolescent health facility, community agencies and institutions.
MPED-806B (Amarillo) MPED-806B (El Paso) MPED-806B (Permian Basin)	Ambulatory Pediatrics The purpose of this elective is to familiarize the student with preventive pediatrics and parent education, acute intervention in common childhood diseases and follow-up visits, evaluation of patients in an outpatient consulting service, and interactions with Faculty and residents about the many facets of ambulatory pediatrics. Students will participate in ambulatory clinics and various conferences and rounds associated with pediatrics. At the end of the rotation, the student will present a topic in ambulatory pediatrics to residents and Faculty.
MPED-806D (El Paso) MPED-806D (Lubbock)	Pediatric Endocrinology/Metabolism This elective provides exposure to outpatient management of common pediatric endocrine problems. Included will be growth assessment, Type 1 diabetes, congenital hypothyroidism, acquired hypothyroidism, hyperthyroidism, precocious puberty, delayed puberty, congenital adrenal hyperplasia, diabetes insipidus, and disorders of calcium regulation. Limited exposure to inpatient consultations is anticipated. Indications for common endocrine laboratory tests and their interpretation will be reviewed. Endocrine aspects of common pediatric clinical situations will be discussed.
MPED-806E (El Paso) MPED-806E (Lubbock) MPED-806E (Permian Basin)	Pediatric/Diabetes Camp This elective offers a unique opportunity to learn day-to-day management of Type 1 diabetes. The student attends a one- or two-week session at a camp for children with diabetes and takes a direct primary-care responsibility for a group of children at the camp. Training is provided under the camp medical directors who are highly trained and thoroughly experienced in managing diabetes in children. Duties include supervision and monitoring of daily blood sugar testing and insulin injections. Pre-camp training and reading assignments will be provided. Daily meetings during the camp will provide some additional educational opportunities.
MPED-806G (El Paso) MPED-806G (Lubbock)	Pediatric Infectious Diseases The objective of this elective is to familiarize the student with the clinical and microbiologic approach to common pediatric infectious disease problems. The student will become familiar with the different classes of

antimicrobial agents and learn when and how to select appropriate empirical antibiotic therapy. The student will participate in the differential diagnosis of pediatric patients presenting with signs and symptoms of an infectious disorder. The student will learn the appropriate laboratory tests and culture techniques for isolation and identification of bacterial, viral, fungal, and parasitic pathogens. Epidemiology and infection control of specific infectious pathogens will be discussed. This elective is primarily an inpatient consultation rotation involving the teaching hospital and two private hospital services with one weekly outpatient clinic for follow-up and consultation. Opportunities for research projects may be available if desired.

Pediatrics Year 4 Elective Rotations continued...

Course Number (Campus)	Name/General Description
MPED-806H (Lubbock) MPED-806H (Permian Basin)	Clinical Neonatology Students will participate in the delivery of neonatal care in a modern, neonatal intensive care unit setting. Initially, the student will be oriented to the fundamentals of the physical examination, feeding, and preventive health maintenance of the normal newborn. Later, the student will participate in the care of the sick and/or premature infants admitted to the NICU under the close and direct supervision of the full time medical staff, assuming increasing responsibility in the care of the acutely ill neonate. This elective will provide the student with the opportunity to learn and perform procedures used in neonatal intensive care: resuscitation, intubation, umbilical vessel catheterization, chest tube placement, radial artery punctures, exchange transfusions, ventilatory management, etc.
MPED-806I (El Paso) MPED-806I (Lubbock) MPED-806I (Permian Basin)	Inpatient Pediatrics This elective provides an individualized, problem-oriented rotation for the student to help develop a systematic approach to the pediatric patient for evaluation and management while the patient is hospitalized, with plans for follow-up. The student assumes the role of extern, and night call schedule and activities are coordinated with the senior resident on the ward. Pertinent reference material will be provided, and literature searches by the student will be encouraged. The faculty attending and the senior resident will provide supervision.
MPED-806J (Amarillo) MPED-806J (El Paso) MPED-806J (Lubbock) MPED-806J (Permian Basin)	Pediatric Cardiology Students will be provided many opportunities to learn a variety of cardiac problems in pediatric patients. The student will observe or participate in any activities that the pediatric cardiologist will perform in the diagnosis and management of children with cardiac diseases. The student will become familiar with the interpretation of normal and abnormal cardiac manifestations and physical findings of cardiac defects in children. The student will observe non-invasive and invasive diagnostic procedures and will be encouraged to interpret electrocardiograms, echocardiograms, and cardiac catheterization data. The student will also have an opportunity to observe cardiac surgery and follow the patient post-operatively with the cardiologist. Sufficient physiopathological background will be provided to make the cardiac problems more comprehensible through lectures, case discussions, and review of pathologic specimens.
MPED-806M (Amarillo) MPED-806M (Lubbock)	Pediatric Gastroenterology This elective provides an opportunity for the student to participate in the diagnostic evaluation and management of pediatric patients with

gastrointestinal and liver disease. The elective is in a private practice setting and will expose the student to a wide variety of diseases through both clinic and hospital consultations. The student will become familiar with the appropriate use of laboratory, radiology, and endoscopy (including review of histology) in the evaluation and management of pediatric patients. There will also be an opportunity for the student to become familiar with the use of diagnosis and management coding as well as general office procedures in the private practice setting.

Pediatrics Year 4 Elective Rotations continued...

Course Number (Campus)	Name/General Description
MPED-806Q (Amarillo) MPED-806Q (Lubbock)	<p>Pediatric Hematology/Oncology The purpose of this elective is to provide clinical experience to common problems in hematology and oncology by direct contact with patients. At the end of the rotation, students will be able to learn the essential knowledge in evaluating, diagnosis and managing patients with hematologic and oncologic problems, including those related to anemia, coagulation, lymphomas, leukemias and certain solid tumors, and hematologic and oncologic emergencies. The emphasis will be place on establishing the rapport with patients, logical approach for differential diagnosis, planning the management according to evidence-based medicine for each clinical situation and condition. Students may also participate in diagnosis procedures including lumbar puncture and bone marrow examination.</p>
MPED-806S (Amarillo)	<p>Pediatric Nephrology The purpose of this elective is to familiarize the student with common problems in pediatric nephrology seen in a general pediatric clinic. The student will have the opportunity to interact directly with patients and their caregivers, obtain history and physicals, and discuss common presentations of renal problems in children. It will also allow the student to obtain first hand insight in the medical and psychological problems associated with children who have chronic diseases. The clinics are held every Tuesday. The student will be allowed to have first contact with patients in either the clinic or the hospital. The student will formulate evaluation and treatment plans in conjunction with the pediatric nephrologist. The student will be given many opportunities to participate in all aspects of care of the child with renal problems.</p>
MPED-806T (Amarillo)	<p>Pharmacology & Therapeutics This elective is designed to help students understand drug therapy in the management of adult as well as pediatric patients. During this rotation, the student will present several cases from among inpatients either in the Departments of Internal Medicine or Pediatrics. This will be followed by a discussion of the different medication used. By the end of this rotation, the student should be familiar with pharmacokinetics, mechanism of action, indications, contraindications, side effects, dosage, and drug interactions of the most commonly used medications.</p>
MPED-806X (El Paso)	<p>Pediatric Pulmonology The purpose of this elective is to develop basic methodology in the evaluation of pediatric lung disease by the rational use of appropriate clinical skills, by interpreting blood gases and pulmonary function tests, and by reading chest radiographs in order to be able to develop a reasonable differential diagnosis, disease evaluation, and therapy (including familiarizing with ventilator). This elective will provide the types of</p>

pediatric pulmonary problems encountered at the general pediatric inpatient facility, as well as those referred to a subspecialty, outpatient chest and/or cystic fibrosis clinic complemented by occasional consultation on critically ill children.

Pediatrics Year 4 Elective Rotations continued...

Course Number (Campus)	Name/General Description
MPED-806Z (Amarillo)	<p>Pediatric Research The clinical study guidelines are: Ask a scientific question, to review the literature, formulate a hypothesis, write introduction, materials and methods, result submitted to the IRB and learn to obtain consent.</p>
MPED-816A (El Paso)	<p>Pediatric Neurology This elective provides exposure to outpatient management of common pediatric neurology problems. Included will be delays in developmental milestones, ataxia, change in sensorium, diplopia, headache, head trauma, hearing concerns, gait disturbance, hypotonia, lethargy, seizure, tremor, vertigo, visual disturbances, and weakness. Limited exposure to inpatient consultations is anticipated. Indications for common neurologic laboratory tests and their interpretation will be reviewed. Neurological aspects of common pediatric clinical situations will be discussed. At the end of the rotation, the student should be able to recognize common neurologic disorders and their presentations.</p>
MPED-816B (El Paso)	<p>Developmental and Behavioral Pediatrics Elective This elective provides exposure to outpatient management of common pediatric developmental or behavioral conditions that often need additional diagnostic and/or management support from other specialties or disciplines. Students will learn the basics on how to evaluate and manage common developmental and/or behavioral signs and symptoms in infants, children, and adolescents. By the end of the rotation, students will have the basic knowledge on how to draft consultations with specific clinical questions and how to review and implement consultant recommendations for care.</p>

Preventive Medicine

Course Number (Campus)	Name/General Description
MPRM-806B (Amarillo) MPRM-806B (Lubbock)	<p>Public Health This rotation is designed to teach fourth-year medical students principles and methods of population health practice and research. Students will spend approximately three half-days per week with clinical and public health practice activities at the City of Amarillo Department of Public Health, City of Amarillo Department of Environment Health, City of Amarillo Department of Emergency Management, and Region I Texas Department of State Health Services. These activities will include participation in tuberculosis treatment clinics, refugee screening clinics, communicable disease control activities, zoonosis control, restaurant inspection, disaster preparedness, planning, and population health policy development. The remainder of the time the student will do required reading in population and occupational medicine, and plan and participate in population health research activities. During this clerkship student will be expected to write a paper of quality acceptable for publication in peer-reviewed literature. Students will meet regularly with the Course Director but should be sufficiently self-motivated to complete a short research project with limited faculty input. Institutional Review Board (IRB) training (which can be one on-line) must</p>

be completed prior to beginning the clerkship.

Psychiatry

Course Number (Campus)	Name/General Description
MPSY-806A (Lubbock) MPSY-806A (Permian Basin)	Adult Inpatient Psychiatry This elective is designed to give the student an opportunity to work with hospitalized inpatients suffering from major psychiatric disorders (affective disorders, schizophrenia, and organic mental disorders). Special emphasis is placed on diagnosis and formulation of treatment plan. In addition, the student will be exposed to those treatment modalities not provided as an outpatient. This would include electroconvulsive therapy (ECT). The student also will have an opportunity to be a part of a multidisciplinary approach to the diagnosis and treatment of inpatient population.
MPSY-806E (El Paso)	Psychiatric Research This elective is designated to give the medical students an exposure to current research themes in Psychiatry or Neurology or both. The student will be exposed to research design, methodology, subject protection, ethics and other aspects of current medical investigation. The elective will be supervised by a faculty member or members who are actively engaged in an investigation, or who will supervise and evaluate a student's original project.
MPSY-806J (El Paso)	Community Services/Child Psychiatry This elective offers the opportunity to participate in the evaluation and treatment of children and adolescents with emotional and developmental disorders in a variety of community agencies. At least 75% of the time will be spent as consult service on the ward and approximately 25% time will be in the clinic.
MPSY-806N (Amarillo) MPSY-806N (El Paso) MPSY-806N (Lubbock)	Forensic Psychiatry The student will be able to identify the basic concepts of forensic and legal psychiatry. The student will also be involved in the actual evaluation procedure for court-referred cases with forensic implications and will attend actual trials and observe psychiatric expert testimony.
MPSY-806P (Amarillo) MPSY-806P (El Paso)	Sleep Disorders Medicine This elective must be combined with another topic of interest during the rotation. This elective reviews the basics of sleep physiology and gives clinical exposure to a wide range of sleep pathology. The student will become acquainted with polysomnography procedures in the Sleep Disorders Center. Disorders such as insomnias, sleep apneas, narcolepsy, and parasomnias will be seen. Students will be expected to observe polysomnographies at night.
MPSY-816A (Amarillo) MPSY-816A (Permian Basin)	Geriatric Psychiatry Student will work closely with a Board Certified Geriatric Psychiatrist to learn psychiatric diagnosis and treatment of geriatric patients in both an outpatient and inpatient setting.
MPSY-816C (Amarillo)	Theory and Practice of Cognitive Behavioral Therapy Student will work closely with a clinician whose practice is focuses on Cognitive Behavioral Therapy in an outpatient setting.

Psychiatry Year 4 Elective Rotations continued...

Course Number (Campus)	Name/General Description
MPSY-816D (Amarillo)	<p>Diagnosis and Treatment of Serious Mental Illness Student will work closely with psychiatry staff at Texas Panhandle Mental Health and Mental Retardation. Experience will be both in the local outpatient clinic and via telemedicine to a variety of surrounding counties.</p>
MPSY-816E (Lubbock)	<p>Substance Use Disorder Treatment Substance use disorder detection and treatment is a vital part of medical practice. Given the prevalence of alcohol and drug addiction and the severity of its potential medical and psychological consequence for patients and their families, it is important that medical students have a solid foundation in this area. A new two-week rotation will be available starting in late August of 2010 that will be available to 10 interested students on a competitive selection basis. One week of this experience will involve training at the Betty Ford Center in Rancho Mirage, California. The week long program is experiential in nature, allowing participants to spend the majority of their time immersed in the same activities as the patients or family members. In addition, there are supplemental presentations provided to augment understanding of the disease of addiction. Participants will either participate in the Inpatient Program, the Residential Day Treatment Program, or the Family Program. This experience will involve participating in treatment activities as well as multidisciplinary treatment planning meetings. Participants will also meet as a group daily during that week to discuss their experiences in each of these programs. Two faculty members will also participate and will be involved in the same activities as the student participants. Costs of travel, lodging, and food will be provided for this training at the Betty Ford Center. The second week of the rotation will involve further discussion of the experience as well as preparation of a Medical Student Grand Rounds presentation to share with your fellow students your experiences and to discuss what you learn regarding the importance of substance use disorder detection and treatment. This is a unique training experience that is being made available to TTUHSC medical students through a generous donation. The donor's interest is in preparing future physicians to optimally deal with evaluating and guiding patients to appropriate treatment when substance use is an issue. The Betty Ford Center is one of the premier treatment facilities in the country and its program serves as a template for most of the substance use disorder treatment programs existing today. Interested students will be asked to complete a brief essay regarding their interest and goals for participating in the program and participant selection will be based on the essays and academic performance.</p>

Radiology

Course Number (Campus)	Name/General Description
MRAD-806A (Amarillo)	<p>Radiology The student will observe and participate in all phases of radiological diagnosis to include fluoroscopy, plain film interpretation, special procedures, nuclear imaging, diagnostic ultrasound, and computed tomography where available. A radiological teaching file is provided for</p>
MRAD-806A (El Paso)	
MRAD-806A (Lubbock)	
MRAD-806A (Permian Basin)	

study purposes, and the student is expected to spend a portion of the time reviewing this file. Attendance at intra-departmental conferences is expected.

Surgery

Course Number (Campus)	Name/General Description
MSUR-806D (Amarillo) MSUR-806D (El Paso) MSUR-806D (Lubbock) MSUR-806D (Permian Basin)	Otolaryngology/Head/Neck Surgery This is an advanced experience in the management of patients with diseases of the ear, nose, and throat. This includes diseases of the airway, esophagus as well as head and neck cancer. Included are a series of lectures, rounds, and clinical experiences with a review of pathology. The course is of value to both a primary care physician as well as a student interested in a career as a surgeon.
MSUR-806E (El Paso) MSUR-806E (Lubbock)	Pediatric Surgery The student will be permitted to review and participate in the care of surgical diseases of infants and children, including the operative management of premature infants with congenital defects, pre-/post-operative care in the neonatal unit, Pediatric Intensive Care Unit, and diagnostic radiology in acute pediatric surgical disease. The student will be introduced to the delicate techniques and manipulative skills necessary in the care of these patients.
MSUR-806F (Amarillo) MSUR-806F (El Paso) MSUR-806F (Lubbock) MSUR-806F (Permian Basin)	Plastic Surgery The elective is designed to acquaint the student with the basic principles of plastic and reconstructive surgery including burns, cosmetic surgery, and trauma to extremities. Also included is an introduction to the principles of microsurgery. The student observes as well as participates in the pre-, post-operative and follow-up for such patients.
MSUR-806G (Lubbock)	Surgical Research This elective is served in the Surgical Research Laboratories at Lubbock. The clerk will receive an introduction to the design and conduct of a laboratory investigation and will participate in one or more on-going projects.
MSUR-806I (Amarillo) MSUR-806I (El Paso) MSUR-806I (Lubbock) MSUR-806I (Permian Basin)	Urology This elective is an advanced experience in the management of disorders of the urinary tract and is designed to provide the student with an understanding of the principles of urological diagnosis and treatment. Included with this elective are a series of lectures, ward rounds, operating room and clinical experiences with a review of pathology. The course is of value to both a primary care physician as well as a student interested in a career as an urologist.
MSUR-806J (Lubbock)	Vascular Surgery This elective exposes the medical student to patients with diseases of the vascular system including peripheral arterial occlusive disease, carotid stenosis, diseases of the venous and lymphatic system. The student will gain advanced knowledge of the pathophysiology of these diseases and the workup and management. The student will learn to evaluate these patients clinically, using non-invasive tests such as Duplex and invasive evaluation including angiography. The student will see and take care of vascular patients and this includes initial evaluation, management plan and participating in the treatment endovascular or operative. The student will follow these patients postoperatively in the intensive care until discharged.

Surgery Year 4 Elective Rotations continued...

Course Number (Campus)	Name/General Description
MSUR-806L (Amarillo) MSUR-806L (El Paso) MSUR-806L (Lubbock) MSUR-806L (Permian Basin)	<p>Neurosurgery This elective is designed to allow the student to "wear the moccasins" of a neurosurgeon for one month. There will be exposure to outpatient and inpatient consultations including review of radiological and neurophysiologic studies, and the neurological decision-making process. There will be the opportunity to participate in the operating room, intensive care unit, and regular ward care of neurosurgical patients.</p>
MSUR-806S (Amarillo)	<p>Surgical Oncology By direct involvement in the clinical practice, the 4th year student will be exposed to cancer patients at all stages of presentation, during treatment and surveillance, and at relapse and or with advanced disease. A series of didactic lectures regarding basic principles in oncology, screening recommendations, and clinical and pathologic staging supplements the office and bedside evaluation of cancer patients so that the objectives of understanding adult cancer issues as listed above can be met. Patients are referred to the surgical oncology division and will be evaluated by the 4th year student in the presence of the surgical oncology division Faculty. Thorough history evaluation, review of previously obtained imaging studies and laboratory results, and review of previously obtained pathology slides will be incorporated into a general discussion for that particular patient's cancer or tumor. The 4th year student will be directly involved in patient discussions regarding evaluation and treatment. There will be a continuity of care inasmuch as pathology slides are reviewed, ordered imaging studies are reviewed and applied to ongoing or definitive decision-making, and the 4th year student will have the opportunity to evaluate patients on the hospital wards and during return visits to the clinical office practice. The close shadowing relationship with division of surgical oncology Faculty allows for a comprehensive experience and continuity. The 4th year student will be present during office practice hours on specific days including Monday afternoon at the VA Medical Center, Tuesday morning at the Texas Tech Office Practice, and Thursday afternoon at the Texas Tech Office.</p>
MSUR-806V (Amarillo) MSUR-806V (El Paso) MSUR-806V (Lubbock)	<p>Female Breast Disease and Treatment This elective is designed to expose the 4th year medical student to and educate him/her in all aspects of female breast disease. The student will participate in the outpatient clinics evaluating patients and participate in the diagnosis and treatment of benign and malignant disease. The student will assist on breast biopsies in the outpatient clinic and will assist at hospital operative procedures. The student will spend time with the medical oncologist in the outpatient setting and at the Infusion Center. The student will also spend time at the Breast Imaging Center assisting with mammography and ultrasound.</p>
MSUR-806W (Amarillo)	<p>Retina and Macular Conditions of the Eye This course is offered as an Elective to students who have a defined interest in pursuing a career in Ophthalmology, and who wish to enhance their knowledge base in the fundamentals and practice of this sub specialty.</p>

This elective will consist of an extensive exposure, in a private practice setting, to the diagnosis and management of both acute and chronic conditions of the Retina and Macula and the surgical procedures unique to this sub-specialty.

Surgery Year 4 Elective Rotations continued...

Course Number (Campus)

Name/General Description

MSUR-806X (Amarillo)

Pre-Internship Surgical Boot Camp

A highly focused Elective Skills Course for 4th-year medical students matched in a General Surgery, Surgical specialty or a Surgery related specialty. This course is to be offered only in the final scheduled rotation of the spring semester for an estimated ten to fifteen (10 – 15) 4th year students. Open to students from all campuses.



Faculty Index



A

Abbas, Aamer, Assistant Professor, Internal Medicine, El Paso, 2008. M.D., Dow Medical College, University of Karachi, 1996.

Abdelgawad, Amr M., Assistant Professor, Orthopaedic Surgery, El Paso, 2009. M.D., Ain Shams University, 1998.

Adams, Neal A., Department Chair/Associate Professor Ophthalmology, El Paso, 2008. M.D., Johns Hopkins University, 1998.

Ahmad, Gul, Research Assistant Professor, Microbiology & Immunology, Lubbock, 2008. Ph.D., Aligarh University, 1999.

Alalawi, Raed Hashim, Assistant Professor, Internal Medicine, Lubbock, 2007. M.D., Sultan Qaboos University, Oman, College of Medicine, 1997.

Ali, Kashif R., Assistant Professor, Pediatrics, Amarillo, 2007. M.D., Dow Medical College, Karachi, 1993.

Allison, Walter M., Assistant Professor, Internal Medicine, Amarillo, 2006. M.D., Texas Tech University Health Sciences Center, 1965.

Almashhrawi, Ashraf, Assistant Professor, Internal Medicine, Permian Basin, 2008. M.D., University of Jordan, 1997.

Al-Tamimi, Hamed A., Assistant Professor, Internal Medicine, Lubbock, 2006. MBBS, Jordan University, 1992. M.D., Texas Tech University Health Sciences Center, 2000.

Altenberg, Guillermo A., Associate Professor, Cell Physiology & Molecular Biophysics, Lubbock, 2007. M.D., University of Buenos Aires, 1983. Ph.D., University of Buenos Aires, 1987.

Aly, Fatima F., Assistant Professor, Pediatrics, El Paso, 2008. M.D., University of Manchester School of Medicine, 1985.

Ambat, Maria Teresa, Associate Professor, Pediatrics, El Paso, 2006. M.D., University of St. Tomas, Philippines, 1994.

Ancaya, Dora, Assistant Professor, Internal Medicine, Permian Basin, 2008. M.D., Lincoln Medical Hospital, 2005.

Antowan, Cenam M., Assistant Professor, Pediatrics, El Paso, 2005. M.D., University of Baghdad, College of Medicine, 1988.

Aragon, Lorenzo, Assistant Professor, Family & Community Medicine, El Paso, 1996. M.D., National Autonomous University of Nicaragua, 1981.

Arredondo, Mark, Professor, Surgery, Amarillo, 2000. M.D., University of Texas Southwestern Medical School, 1983.

Arredondo, Rodolfo M., Professor, Psychiatry, Lubbock, 1972. M.Ed., 1972. Ed.D. Texas Tech University, 1976.

Artigas, Pablo, Assistant Professor, Cell Physiology & Molecular Biophysics, Lubbock, 2008. Ph.D., Universidad de la Republica Uruguay, 2002.

Arze, Annalise X., Assistant Professor, Psychiatry, Lubbock, 2009. M.D., Universidad mayor de San Simon-Cochabamba, Bolivia, 2001

Atkinson, Darryl A., Assistant Professor Clinical, Emergency Medicine, El Paso, 1993. D.O., Oklahoma, Tulsa, 1988.

Ayyappan, Anoop P., Assistant Professor, Radiology, El Paso, 2009. M.D., Trichur Medical College, 2003.

Azarcon, Fernando C., Assistant Professor, Radiology, El Paso, 2009. M.D., University of Sto. Tomas, 1989.

Azarov, Nick, Assistant Professor, Internal Medicine, Permian Basin, 2007. M.D., Kharkov State Medical University Ukraine, 1994.

B

Badr, Ahmed E., Department Chair/ Professor, Anesthesiology, El Paso, 2008. M.D., Tanta University School of Medicine, 1983.

Baker, Laura K., Associate Professor, Family & Community Medicine, Lubbock, 1987. M.D., Texas Tech University Health Sciences Center, 1981.

Baker, Russell A., Instructor, Emergency Medicine, El Paso, 2009. D.O., Midwestern University, Arizona College of Osteopathic Medicine, 2006.

Baker, Teresa E., Associate Professor, OB/GYN, Amarillo, 2004. M.D., University of Texas Southwestern Medical School, 2001.

Baldwin, David M., Professor, OB/GYN, Permian Basin, 1999. M.S., Oklahoma State University, 1967. Ph.D., University of California Davis, 1972.

Baldwin, John C., Professor, Surgery, 2007. M.D., Stanford University SOM, 1975.

Banister, Ronald E., Assistant Professor, Anesthesiology, Lubbock, 1999. M.D., Tulane Medical School, 1998.

Beale, Peter D., Associate Professor, OB/GYN, Permian Basin, 2007. M.D., University of Pittsburgh SOM, 1983.

Bell, Todd E., Associate Professor, Family & Community Medicine, Amarillo, 2006. M.D., University of Arkansas for Medical Sciences, 2001.

Bello-Reuss, Elsa, Professor, Internal Medicine, Lubbock, 2007. M.D., University of Chile, 1964.

Benavides, Luis R., Assistant Professor, Family and Community Medicine, Permian Basin, 2010. M.D., UTMB Galveston, TX, 2003.

Benjamin, Bonna, G., Regional Chair/Assistant Dean Quality Improvement/Professor, Pediatrics, Amarillo, 1996. M.D., University of Pittsburgh, 1973.

Bennett, Kelly Ann, Assistant Professor, Family & Community Medicine, Lubbock, 1998. M.D., Texas A&M University College of Medicine, 1995.

Bennett, Robert E., Professor, Pediatrics, Permian Basin, 1990. M.D., University of Arizona, 1977.

Benton, Timothy J., Associate Professor, Family & Community Medicine, Amarillo, 2005. M.D., Texas Tech University Health Sciences Center, 1994.

Berdine, Gilbert G., Associate Professor, Internal Medicine, Lubbock, 2009. Harvard University, School of Medicine, Boston, MA, 1978.

Bergeson, Susan, Associate Professor, Pharmacology & Neuroscience, Lubbock, 2007. Ph.D., Oregon Health & Science University, 1997.

Berk, Steven L., School of Medicine Dean, Lubbock, 1999. M.D., Boston University, 1975.

Bhairavarasu, Kalpana R., Assistant Professor, Internal Medicine, Permian Basin, 2006. M.D., Mount Vernon Hospital, 2006.

Biskinis, Evanthia K., Professor, Pediatrics, Amarillo, 1993. M.D., Natl Kapodistri, 1961.

Blake, Christy Ann, Instructor, Pediatrics, Amarillo, 1987. MSN, West Texas State, 1983.

Blanc, Oscar, Instructor Clinical, Pediatrics, El Paso, 1990. M.D., University of Illinois, 1990.

Blandon, Pedro A., Assistant Professor, Internal Medicine, El Paso, 2006. M.D., Universidad de Guadalajara, 1995.

Blanton, Michael P., Professor, Pharmacology & Neuroscience, Lubbock, 1995. Ph.D., University of California Santa Cruz, 1989.

Blunk, Dan I., Associate Professor, Psychiatry, El Paso, 2005. M.D., University of Texas Medical Branch at Galveston, 1974.

Boman, Darius A., Department Chair/Associate Professor, Pathology, El Paso, 2005. M.D., Bombay University, 1973.

Borron, Stephen W., Professor, Emergency Medicine, El Paso, 2009. M.D., University of Texas Medical School at Galveston, 1984.

Boswell, Mark, Professor, Anesthesiology, Lubbock, 2005. Ph.D., 1982. M.D., Case Western Reserve University, 1984.

Bourgeois, Michael J., Professor, Pediatrics, Lubbock, 1981. M.D., Louisiana State University School of Medicine, 1975.

Bradley, Charles A., Professor, Pathology, Lubbock, 1987. Ph.D., University of Kentucky, 1975.

Bradley, Craig, Assistant Professor, Family & Community Medicine, Lubbock, 2008. M.D., UT Southwestern Med. School, 1992.

Bradley, Jay, Assistant Professor, Ophthalmology, Lubbock, 2008. M.D., Texas Tech University Health Sciences Center, 2003.

Bridges, Walter J., Associate Professor, Pediatrics, Amarillo, 2000. M.D., Texas Tech University Health Sciences Center, 1988.

Bright, Robert K., Associate Professor, Microbiology & Immunology, Lubbock, 2002. Ph.D., University of Texas Health Sciences Center at San Antonio, 1994.

Bright, Tamis M., Associate Professor Clinical, Internal Medicine, El Paso, 1995. M.D., Loyola Stritch Medical School, 1989.

Brindley, George, Department Chair/Associate Professor, Orthopaedic Surgery, Lubbock, 2006. M.D., UTMB at Galveston, 1981. M.S., University of Minnesota, 1985.

Briones, David F., Interim Department Chair/Professor, Psychiatry, El Paso, 1976. M.D., University of Texas Medical Branch at Galveston, 1971.

Brown, Elisa L., Assistant Professor, OB/GYN, Permian Basin, 2005. M.D., Eastern Virginia Medical School, 1994.

Brown, James M., Assistant Professor, Emergency Medicine, El Paso, 2009. M.D., Texas Tech University Health Sciences Center, 1994.

Bryan, E. David., Assistant Professor, Emergency Medicine, El Paso, 1995. M.D., University of Texas Health Sciences Center Houston, 1991.

Burdine, Ramona, Regional Chair/Assistant Dean Educational Affairs/Associate Professor, Family & Community Medicine, Permian Basin, 2007. M.D., Oklahoma University HSC, 1994.

Burks, James K., Professor, Internal Medicine, Permian Basin, 1994. M.D., University of Texas Southwestern Medical School, 1971.

Burt, Benjamin O., Assistant Professor, Ophthalmology, El Paso, 2009. M.D., University of Melbourne, 1997.

Butler, Jack M., Assistant Professor Clinical, Emergency Medicine, El Paso, 1999. M.D., Texas Tech University Health Sciences Center, 1999.

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C

Caliendo, Martin, Associate Professor, OB/GYN, Permian Basin, 2009. M.D., Rush Medical College, Chicago, IL, 1989.

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Camp, Tammy M., Associate Professor, Pediatrics, Lubbock, 1997. M.D., Texas Tech University Health Sciences Center, 1994.

Campbell, Samuel Joe, Associate Professor, Surgery, Lubbock, 2008. M.D., Texas Tech University Health Sciences Center, 1982.

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