

**HEALTH SCIENCES CENTER**



**SCHOOL OF MEDICINE  
CATALOG  
2005 – 2006**

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2005 – 2006 TTUHSC SOM Catalog Project Director, Trevor Yates, *Assistant Director*, School of Medicine. For catalog questions or to request a digital copy and/or hard copy of this publication, please email: [trevor.yates@ttuhsc.edu](mailto:trevor.yates@ttuhsc.edu)

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## **MISSION**

The mission of the School of Medicine is the provision of quality medical education. This effort in each of its four geographically separated campuses encompasses undergraduate, graduate, and continuing medical education and graduate studies. The emphasis is on both primary care for rural and underserved areas of West Texas and highly specialized care. These are enriched by the conduct of relevant biomedical investigations and other scholarly pursuits. The School of Medicine has developed supplemental mission statements for the centers at Amarillo, El Paso, Lubbock and Odessa in order to define the unique role of each campus within the several goals of the institution. The individual mission statements provide the basis for the development plan for each campus.

The development and operation of the overall academic program of the school and its regional conduct on four separate campuses is in strict compliance with the Liaison Committee on Medical Education (LCME) standards for accreditation of medical schools with geographically separate campuses. Each campus provides for an appropriate subset of each of the seven programmatic responsibilities of any School of Medicine: undergraduate medical education, residency training, continuing medical education, biomedical graduate education, research, patient care, and community service.

## **HISTORICAL AND SYSTEM INFORMATION**

### *Texas Tech University Health Sciences Center & Lubbock*

The Texas Tech University Health Sciences Center School of Medicine was created by the 61<sup>st</sup> 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 20% of its population, (2 million+, 12.5% of the 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, 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 422 with 50 part time faculty and 939 volunteer faculty.

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.

The goal of populating West Texas with physicians is currently being achieved with 20% of the region's doctors having been trained at Texas Tech. Texas Tech HSC 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.

### *Amarillo Campus*

The Amarillo campus began in 1972 with the forming of the medical school in Lubbock. Elective rotations for students were done from 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 5 students entered the Amarillo campus. That number has steadily risen to 70 third and fourth year students in January 2005. 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 1973, El Paso became a vital regional center for Texas Tech University Health Sciences Center. Known as Texas Tech El Paso, its clinical sites are provided at R. E. Thomason General Hospital, William Beaumont U.S. Army Medical Center, Providence Hospital, El Paso Psychiatric Center, and various primary care clinics dispersed throughout the city.

### *Odessa Campus*

The Odessa campus was established in 1979 and currently 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 Pediatrics. In the Midland-Odessa area, clinical sites are Medical Center Hospital (Odessa) and Memorial Hospital (Midland).

## **MEDICAL STUDENTS & THE MULTI-CAMPUS SYSTEM OF TEXAS TECH UNIVERSITY HSC**

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, the class is divided with approximately 35 to 40 students in Amarillo, 45 to 50 students in Lubbock, and 60 to 65 students in El Paso. The campus at Odessa provides only graduate training and certain undergraduate elective experiences.

Assignments to the regional campuses are based to the extent possible on expressions of student preference obtained prior to entry into the first year. There is a possibility for change in assignment for due cause. At the beginning of the first year, there is an active orientation program that includes a day spent 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 diversity of experience in community hospitals and in the School of Medicine's own 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 examinations, 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, and Surgery. The sub-specialty programs (fellowships) include Pain Management, Cardiology, Dermatopathology, Gastroenterology, Nephrology, and Pain Management.

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

In January 2004, the Texas Tech University Health Sciences Center Academic Classroom Building was opened. The facility includes two large state-of-the-art auditoriums, along with a new histology laboratory that is also designed for computer based curriculum.

The future...

In mid-2004, the Texas Tech University Health Sciences Center broke ground on a new clinical tower that will house all of the current clinics in the main HSC building. This will greatly enhance the capabilities of the primary health care professionals of the HSC.

Currently, the plan is for the regional El Paso campus to become a 4-year medical school beginning in the fall of 2009. This will be a separate school, but will remain as a school of the Texas Tech University Health Sciences Center. Concurrently, the Texas Tech Odessa campus is being considered to replace El Paso as an undergraduate regional campus and as such will receive a portion of the 3<sup>rd</sup> and 4<sup>th</sup> year medical students.

**SCHOOL OF MEDICINE  
OFFICE OF ADMISSIONS**

Bernell K. Dalley, Ph.D., Associate Dean for Admissions & Minority Affairs

Linda Prado, Director; Trevor Yates, Assistant Director / JAMP Coordinator;  
Amanda McSween, Senior Administrative Assistant; Chyrel Mitchell,  
Administrative Assistant; Melissa Henry, Student Assistant

**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 29 or higher). One hundred forty students are selected for each entering class. This total includes 8 M.D./M.B.A. students, and a handful of 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 preference 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, sex, age, ethnic origin, religion, sexual orientation or disability. 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 140 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. The completion of a baccalaureate degree, however, is highly desirable before entrance into medical school. Students applying without a baccalaureate degree are considered only if they have a significantly superior scholastic record and exhibit personal maturity.

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

| <i>Required Courses</i>                         | <i>Duration</i> | <i>Semester Hours</i> |
|---|-----------------|-----------------------|
| General Biology or Zoology                      | 1 year          | 6                     |
| Biology or Zoology Labs                         |                 | 2                     |
| Upper division Biology or Zoology               | 1 year          | 6                     |
| 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. OR 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

| <i>Date</i>    | <i>Classification</i>    | <i>Description</i>   |
|----------------|--------------------------|--|
| Fall, Year 1   | Freshman                 | <ul style="list-style-type: none"> <li>• Focus on grades, take no more than 15 hours of coursework</li> <li>• Research and begin prerequisite courses: Chemistry, Biology, Physics, etc.</li> <li>• No MCAT preparation</li> <li>• Little or no health care exposure</li> <li>• Join a premedical organization or society</li> </ul> |
| Spring, Year 1 | Freshman                 | <ul style="list-style-type: none"> <li>• Focus on coursework, but begin weekly healthcare exposure</li> </ul>  |
| Summer, Year 1 | Freshman / New Sophomore | <ul style="list-style-type: none"> <li>• Continue with coursework</li> <li>• Taking pre requisites during summer is not recommended</li> <li>• Focus on health care exposure</li> </ul>  |
| Fall, Year 2   | Sophomore                | <ul style="list-style-type: none"> <li>• Focus on academics, prerequisites</li> <li>• Continue healthcare exposure</li> <li>• Establish solid relationships with mentors, professors, MDs, or other</li> </ul>   |

|                |                        |   |
|----------------|------------------------|---|
|                |                        | supervisors that could write Letters of Evaluation  |
| Spring, Year 2 | Sophomore              | <ul style="list-style-type: none"> <li>• Begin researching medical schools, fees, towns of the schools</li> <li>• Begin research into formal MCAT preparation courses</li> <li>• Continue to focus on academics, healthcare exposure</li> </ul>   |
| Summer, Year 2 | Sophomore / New Junior | <ul style="list-style-type: none"> <li>• Explore possible research opportunities, premedical academies, or other scientific internships</li> <li>• Take summer school courses if needed (not prerequisites)</li> <li>• Focus on healthcare exposure if no internship presents itself</li> </ul>   |
| Fall, Year 3   | Junior                 | <ul style="list-style-type: none"> <li>• Begin composing of personal statement for medical school application</li> <li>• Approach prospective letter of evaluation writers and seek feedback on performance under their supervision</li> <li>• Revisit degree plan to make sure nothing is missed</li> <li>• Sit down with pre-medical advisor to confirm status, receive guidance</li> <li>• Maintain good grades</li> <li>• Commence MCAT preparation (if Organic Chemistry I and Physics I have been completed)</li> <li>• Explore and prepare application for premedical academies</li> </ul> |
| Spring, Year 3 | Junior                 | <ul style="list-style-type: none"> <li>• Visit prospective medical schools</li> <li>• Continue preparations for summer camp applications</li> <li>• Prepare mentally, financially, logistically, for medical school application / interviewing season</li> <li>• Application for Texas State medical schools opens May 1</li> <li>• Early submission of application is recommended for prime interviewing opportunity</li> <li>• Remain active with premedical / service organizations</li> <li>• It is recommended that the spring administration of MCAT is taken</li> </ul>                    |
| Summer, Year 3 | Junior / Early Senior  | <ul style="list-style-type: none"> <li>• Attend summer premedical camp / academy (if applicable)</li> <li>• Submit medical school applications, (main apps and secondaries)</li> <li>• Attend summer school to catch up</li> </ul>  |

|                |        |  |
|----------------|--------|--|
|                |        | <ul style="list-style-type: none"> <li>with coursework (if applicable)</li> <li>• Texas medical school interviews typically begin early to mid-August</li> </ul>   |
| Fall, Year 4   | Senior | <ul style="list-style-type: none"> <li>• Continue preparations for medical school interviews</li> <li>• Maintain grades</li> <li>• Continue with healthcare exposure</li> </ul>  |
| Spring, Year 4 | Senior | <ul style="list-style-type: none"> <li>• Submit rank list of medical schools where interviewed. Due January 15</li> <li>• "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 1.)</li> <li>• Maintain grades and course schedule in order to graduate on time.</li> <li>• (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.</li> </ul> |
| Summer, Year 4 | NA     | <ul style="list-style-type: none"> <li>• (If Accepted) Travel, do some extracurricular activities</li> <li>• Prepare to move to respective medical school</li> <li>• Medical school classes begin early August</li> </ul>  |

## Medical College Admission Test (MCAT)

Completion of the Medical College Admission Test (MCAT) within 3 years of application 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 Program Office**

**P.O. Box 4056**

**Iowa City, IA 52243**

**(319) 337-1357**

[mcats\\_reg@act.org](mailto:mcats_reg@act.org)

<http://www.aamc.org/students/mcat/start.htm>

## A Complete Application to TTUHSC SOM

In order for an applicants 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 TMDAS. (Remember: Texas Tech also has a secondary application which must be completed.)

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

|  |  |
|--|--|
| Main, TMDAS Application, Fees, Photos, and Signature page              | Submitted electronically   |
| TTUHSC SOM Secondary Application, \$50 application fee, signature page | Submitted electronically via Admissions Website  |
| Letters of Evaluation  | All letters declared by the applicant on the TMDAS application must be received.   |
| MCAT Scores  | No more than 3 years old from the time of the application.   |
| All other required information in the way of supporting documents.     | This can include proof of Texas / U.S. residency (if applicable) <b>Supporting documents does include all transcripts from all schools attended, submitted to TMDAS.</b> |

## Application Timeline

The Fall of 2006 will see the beginning of a new application process for the Texas medical schools with the exception of Baylor School of Medicine.

### Entering Year 2007 - Medical School Application Dates

|                          |   |
|--------------------------|---|
| <b>MAY 1</b>             | Applications become available; all medical school secondary applications become available |
| <b>EARLY TO MID JUNE</b> | Texas Tech HSC SOM receives first batch of submitted applications; file evaluations begin |
| <b>EARLY AUGUST</b>      | Interview offers initiated; interviewing season begins at TTUHSC SOM                      |

|                    |   |
|--------------------|---|
| <b>OCTOBER 15</b>  | Application Deadline  |
| <b>NOVEMBER 15</b> | Rolling Admissions Session begins; open acceptance period to applicants   |
| <b>DECEMBER 31</b> | Rolling Admissions Session ends; interviewing season at TTUHSC SOM ends   |
| <b>JANUARY 15</b>  | Deadline for applicants holding multiple seats to declare desired school  |
| <b>FEBRUARY 1</b>  | Deadline for applicant preferences and school rank lists that have not been accepted during the rolling admission period                        |
| <b>FEBRUARY 15</b> | Texas Medical School Match Day; all remaining applicants learn about matching to a medical school or not  |
| <b>FEBRUARY 16</b> | Rolling Admissions Session 2 begins; alternate list formulated at TTUHSC SOM  |
| <b>Mid August</b>  | 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 15. 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:

**Main application:**                    <http://www.utsystem.edu/tmdsas>

### **Texas Tech University HSC School of Medicine Secondary Application**

Texas Tech University HSC School of Medicine also requires a Secondary Application. This application can be accessed and submitted on the web and the application fee is sent to the Office of Admissions of Texas Tech University HSC School of Medicine. For up-to-date information on the application process and fees, consult the web addresses indicated below. Each application must be submitted with a signature page and a \$50 application fee.

**Secondary application:**  
<http://www.ttuhsoc.edu/som/admissions>

**Note: There is a \$50 application fee.  
Please make check payable to: TTUHSC  
SOM Admissions**

### ***File Evaluation & Interview (June 1 – December 31)***

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 and El Paso campuses.

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 2, 30 minute interviews. M.D. / M.B.A. and M.D. / Ph.D. invited applicants are given 3 interviews, 2 for the medical school, and one from the Texas Tech University Rawls College of Business OR the TTUHSC Graduate School of Biomedical Sciences (GSBS), respectively.

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)***

For the first time, in the Fall of 2006, the Texas medical schools will be entering a dual rolling admissions / match system. During this 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 about 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 plan to attend no later than January 15<sup>th</sup>. These applicants must also formally withdraw from the other medical school where they had an offer (withdraw notification, in writing.)

### ***The Texas Match (February 1 – February 15)***

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 to exist, but in a slightly different timeframe. Those interviewed applicants that have not been accepted to a Texas medical school during the Rolling Admission Session will enter the Match. Interviewed applicant preference lists and medical school rank lists are due on February 1. "Match Day", the day where interviewed applicants find out about their status, will be February 15. Results of the Match will be listed on the web (at TMDSAS & TTUHSC SOM) and acceptance letters mailed February 15.

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 February 1. 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 16 – mid August)***

Sometime after the Match, the Director and Associate Dean of Admissions will formulate an official "alternate list" from interviewed applicants that remain available even after the rolling admission session, or in the February 15<sup>th</sup> match. In the event an accepted applicant gives up his/her seat in the class, a replacement will be selected from the alternate list. This process is generally intermittent and unpredictable. 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**

#### **Background Check**

In order to provide a safe environment for patients, visitors, faculty, employees and students at TTUHSC, criminal background checks will be instituted as of September 1, 2006. Compliance with this policy will be required of all Entering Year 2007 applicants. Criminal background checks (CBSs) 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 consent forms, 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.

### **March 30, 2005**

Changes to the medical admissions matching process were discussed and approved by all of the participating Texas medical schools.

### ***Admissions Policies for Non-Residents of Texas***

As of the Entering Year 2006, all non-resident applicants to the Texas schools, (except Baylor Medicine) were removed from the Match. Acceptance of non-resident, interviewed applicants begins October 15<sup>th</sup>.

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,

20. ...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.

21. 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.

22. 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)

23. 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.

24. 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.**

- c. 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.

### ***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>

## Immunizations & Health Insurance

As a condition of entry to medical school, each student must produce proof of immunization compliance will all of the following:

- Tetanus / diphtheria (within ten years prior to matriculation)
- Measles-Mumps-Rubella (MMR) (2 doses at least 30 days apart)
- Hepatitis-B series OR protective antibody titer
- Tuberculin skin test (PPD) OR documented physician diagnosis of disease OR chest X-ray following prior positive skin test
- Varicella, Rubella, and Rubeola titers: Documentation of immune status by quantitative IgG testing
- Polio

If the hepatitis-B immunization series has been begun, it may be completed during the first year of medical school at the Student Health Service.

Immunization records are to be submitted to the Office of Students Affairs, where they are kept on file. As immunizations are updated, students must provide them written documentation to the Student Affairs office.

Students must show proof of health insurance at the time of matriculation. For more information of immunizations and health insurance, please visit the Office of Student Affairs' website. <http://www.ttuhschool.edu/som/studentaffairs>

## Special Considerations

### 1. ***AAMC Early Decision Program (EDP)***

The school does have a program whereby exceptionally well qualified students can receive a decision on their applications by October 1 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 October and commits to matriculate at Tech if the position is offered. Applicants will be notified of the Committee's decision on or before October 1. If an individual is not accepted under the Early Decision Program plan, that applicant will still be considered in the regular applicant pool at Tech and may also then apply to any other medical schools.

### 2. ***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.

3. ***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 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 student may be accepted to enter in July of the third year with the written understanding that failure to pass USMLE Step I will jeopardize their place in the 3<sup>rd</sup> year class.

**The guidelines and criteria for advanced standing admission and the transfer application are available at:**

**[http://www.ttuhschool.edu/admissions/adv\\_admiss.aspx](http://www.ttuhschool.edu/admissions/adv_admiss.aspx)**

Under very exceptional circumstances, applicants from related health care fields such as dentistry or veterinary medicine and applicants who have completed all requisite basic science courses as graduate students may be considered for acceptance into the appropriate level of medical school. In most cases, the applicant would be required to apply for a first year position regardless of degree held. If judged acceptable at interview, the candidate then could request the opportunity to demonstrate competence by being allowed to take the final examinations in Anatomy, Biochemistry, Histology, Physiology, and Integrated Neurosciences. All of these would have to be passed at or above the class mean and would have to be completed by July 1 of the summer preceding possible entry. He/she could then be admitted to the second year curriculum. He/she would be required to take all courses of the second year curriculum with the understanding that failure of a single course in either semester could be a basis for dismissal. If the student passes all second year courses, he/she would be promoted to the third year as a "regular" student subject to the rules and regulations applicable to all other students.

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.

### **The MD/MBA Joint 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 practices or as they begin careers in management for major health care organizations.

In the program structure, students will complete the 51-hour M.B.A. program in four years, including the summers before and after the first-year medical school curriculum. Areas of study will include accounting, 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) as part of the program.

The M.B.A. (HOM) program is accredited by the Commission on Accreditation of Healthcare Management Education (CAHME). This accreditation assures the prestige and enhances the value of M.D./M.B.A.

Enrollment for the combined M.D./M.B.A. program is limited to a maximum of 8 students per year.

| <b>Additional information may be obtained from:</b>   |   |
|---|---|
| <b>Office of Admissions 2B116<br/>TTUHSC School of Medicine<br/>3601 4<sup>th</sup> Street<br/>Lubbock, TX 79430-0001<br/>Phone: (806) 743-2297<br/>Fax: (806) 742-2725</b> | <b>Health Organization Management<br/>M.B.A. &amp; M.D./M.B.A. Program<br/>Box 42101<br/>Texas Tech University<br/>Lubbock, TX 79409-2101<br/>Phone: (806) 742-1236<br/>Fax: (806) 742-2308</b> |
| <b>Web: <a href="http://www.ttuhschool.edu/som/admissions/mba.aspx">http://www.ttuhschool.edu/som/admissions/mba.aspx</a></b>   |   |

### **The M.D./Ph.D. Combined 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 Biomedical Graduate Program 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 in one of the School of Medicine's approved graduate programs. 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 forms they submit to both the TTUHSC School of Medicine and the Graduate School of Biomedical Sciences.

## **M.D./Ph.D. Application Procedures**

The student applies simultaneously to the School of Medicine and the Graduate School of Biomedical Sciences with a complete application to each school as determined by the schools' criteria. The student indicates on each application that he/she is applying for the M.D./Ph.D. program and includes a one-page statement on the goals and reasons for interest in the program.

## **M.D./Ph.D. Admission**

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

### Acceptance Criteria for M.D./Ph.D. Program:

|             |      |
|-------------|------|
| <b>MCAT</b> | 30   |
| <b>GRE</b>  | 1200 |
| <b>GPA</b>  | 3.5  |

### Enrollment Pattern:

| <b>Semester</b>        | <b>Year 1</b> | <b>Year 2</b> | <b>Years 3-5</b> | <b>Years 6-7</b> |
|------------------------|---------------|---------------|------------------|------------------|
| 1st Summer             | GSBS          | GSBS          | GSBS             | SOM              |
| 2 <sup>nd</sup> 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](mailto:graduate.school@ttuhsc.edu)  
Web: <http://www.ttuhsc.edu/gsbs/>

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

| <b>Additional information may be obtained from:</b>   |  |
|---|--|
| <b>Office of Admissions 2B116<br/>Texas Tech University Health<br/>Sciences Center<br/>School of Medicine<br/>3601 4th Street<br/>Lubbock, TX 79430<br/>Phone: (806) 743-2297<br/>Fax: (806) 743-2725</b>   | <b>Graduate School of Biomedical<br/>Sciences 2B106<br/>Texas Tech University Health<br/>Sciences Center<br/>3601 4<sup>th</sup> Street<br/>Lubbock, TX 79430-6206<br/>Phone: (806) 743-2556<br/>Fax: (806) 743-2656</b> |
| <b>Web: <a href="http://www.ttuhsc.edu/gpbs/academics/mdphdprogram.aspx">http://www.ttuhsc.edu/gpbs/academics/mdphdprogram.aspx</a><br/><a href="http://www.ttuhsc.edu/gpbs/prospective/default.aspx">http://www.ttuhsc.edu/gpbs/prospective/default.aspx</a></b> |  |

### **Research Honors Program**

This program has been established to provide the 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.

### **Special Programs (Undergraduate)**

#### Summer Premedical Academy (SPA)

The SPA is primarily for MCAT preparation, but also provides prospective medical students with aid in all aspects of the medical school application process including, shadowing of physicians, oral/written communication courses. The training also includes extensive admissions counseling, participation in summer community events, dinners and with motivational speakers. The program is designed for prospective students that are interested in premedical training in a strict, regimented environment. The program duration is 6 weeks, going from late May to the first week of July. Students live on the Texas Tech University undergraduate campus for the duration. All

students are mentored by medical students that have completed their first year of training. The major benefit to the program is the fact that all of the training is free is accepted. The application opens November 1 each year for the next year's summer session. All room and board is paid. For more details on the application period, process, and the application itself, please visit the website:

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

### Undergraduate to Medical School Initiative (UMSI)

This program is an 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 in 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. The undergraduate experience must be a minimum of 6 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 visit the website:

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

### Undergraduate Honors Agreements

TTUHSC SOM has early acceptance agreements with the Honors Colleges of the following schools: Austin College, Texas Tech 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](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 state-wide premedical academy designed for competitive students with aspirations of one day becoming a physician. This program was initiated by the Texas Senate Bill 940 of the 77<sup>th</sup> Texas Legislature. More specifically, it is designed to provide services which support and encourage high qualified, economically disadvantaged students pursuing a medical education. Second, to award undergraduate and medical school scholarships to its 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 medical school. All medical schools in Texas currently 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 eligibility for Pell Grant funding. For more information on the JAMP program, please visit:

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

AND / OR the TTUHSC SOM Office of Admissions site:

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

#### Dr. Bernard H. Harris Premedical Society (DHPS)

Started in 1998, by undergraduate premedical students and sanctioned by the TTUHSC SOM Office of Admissions, the Bernard H. Harris Premedical Society is a premedical society designed to do the following:

1. Provide prospective students with the pertinent admissions information from the various medical schools in Texas.
2. Provide close advising by the TTUHSC SOM Office of Admissions.
3. Provide healthcare / volunteer opportunities for its members,

essentially aiding the prospective student in the essential, non-academic areas of the medical school application.

All Texas Tech students are eligible for this student organization. Meetings are typically held monthly on the Texas Tech University main campus. For more information on DHPS, please visit the website:

<http://student.ttuhschool.edu/BHPS>

## Statistical View

|                             |        |                           |
|-----------------------------|--------|---------------------------|
| Entering Year 2004          |        |                           |
| National Applicants:        | 35,735 | 2.7% Increase from ('03): |
| Avg. MCAT VR                | 8.9    | St. Dev: 2.2              |
| Avg. MCAT BS                | 9.4    | St. Dev: 2.1              |
| Avg. MCAT PS                | 9.0    | St. Dev: 2.2              |
| Avg. GPA                    | 3.47   | St. Dev: 0.37             |
| Avg. Science GPA            | 3.36   | St. Dev: 0.46             |
| Percentage of Men           | 50.7   |                           |
| Percentage of Women         | 49.3   |                           |
| Enrolled                    | 16,648 |                           |
| Applicants NOT Matriculated | 19,089 | 53.4% of applicant pool   |
| Avg. National Applicant Age | 24     |                           |
| Number of Students Enrolled | 67,656 |                           |

For more information on national applicants, please visit the Association of American Medical Colleges (AAMC):

<http://www.aamc.org/data/facts/start.htm>

### 2004 - 2005 Texas Applicant Statistics

| <b>APPLICANTS</b>   | <b>2004</b> |     |           |     | <b>2005</b> |     |  |  |
|---------------------|-------------|-----|-----------|-----|-------------|-----|--|--|
| Total Applicants    | 3343        |     |           |     | 3652        |     |  |  |
| Men                 | 1683        |     |           |     | 1835        |     |  |  |
| Women               | 1660        |     |           |     | 1817        |     |  |  |
| Residents           | 2654        |     |           |     | 2953        |     |  |  |
| Non-Residents       | 689         |     |           |     | 699         |     |  |  |
| Avg. GPA            | 3.47        |     |           |     | 3.48        |     |  |  |
| Avg. MCAT           | 26.7        |     |           |     | 26.8        |     |  |  |
|                     | <b>VR</b>   | 8.7 | <b>BS</b> | 9.2 | <b>PS</b>   | 8.8 |  |  |
| <b>INTERVIEWEES</b> |             |     |           |     |             |     |  |  |
| Total Interviewees  | 2019        |     |           |     | 2172        |     |  |  |

|                  |            |                                 |
|------------------|------------|---------------------------------|
| Men              | 1039       | 1134                            |
| Women            | 980        | 1038                            |
| Residents        | 1764       | 1936                            |
| Non-Residents    | 255        | 236                             |
| Avg. GPA         | 3.61       | 3.61                            |
| Avg. MCAT        | 28.7       | 28.7                            |
|                  |            |                                 |
| Offers Extended* | 1357       | 1356                            |
| Men              | 679        | 686                             |
| Women            | 678        | 670                             |
| Residents        | 1215       | 1229                            |
| Non-Residents    | 142        | 127                             |
| Avg. GPA         | 3.68       | 3.68                            |
| Avg. MCAT        | 29.5       | 29.6                            |
|                  |            |                                 |
| ACCEPTED         | 2004       |                                 |
| Total Accepted   | 1171       |                                 |
| Men              | 583 (50%)  |                                 |
| Women            | 588 (50%)  |                                 |
| Residents        | 1094 (93%) |                                 |
| Non-Residents    | 77 (7%)    |                                 |
| Avg. GPA         | 3.65       |                                 |
| Avg. MCAT        | 28.7       |                                 |
|                  | <b>VR</b>  | 9.3 <b>BS</b> 9.9 <b>PS</b> 9.4 |
| Avg. Age         | 23.7       |                                 |

*VR = Verbal Reasoning; BS = Biological Sciences; PS = Physical Sciences*

*\*The offers extended are through February 1<sup>st</sup> of that year. The 2005 results are pending until August.*

*Data includes the following schools: UT System Schools, Texas A&M College of Medicine, Texas Tech University HSC School of Medicine, and University of North Texas College of Osteopathic Medicine*

| <b>TTUHSC SOM APPLICANTS</b> | <b>Entering Year 2005</b> |     |           |     |           |     |
|------------------------------|---------------------------|-----|-----------|-----|-----------|-----|
| <b>Total Applicants</b>      | 2,630                     |     |           |     |           |     |
| <b>Men</b>                   | 1,358                     |     |           |     |           |     |
| <b>Women</b>                 | 1,295                     |     |           |     |           |     |
| <b>Residents</b>             | 2,356                     |     |           |     |           |     |
| <b>Non-Residents</b>         | 297                       |     |           |     |           |     |
| <b>Avg. GPA</b>              | 3.45                      |     |           |     |           |     |
| <b>Avg. MCAT</b>             | 26.2                      |     |           |     |           |     |
|                              | <b>VR</b>                 | 8.5 | <b>BS</b> | 9.1 | <b>PS</b> | 8.6 |
| <b>Avg. Age</b>              | 24                        |     |           |     |           |     |

| TTUHSC SOM<br>APPLICANT ETHNICITY<br>DISTRIBUTION | Entering Year 2005 |       |       |       |
|---|--------------------|-------|-------|-------|
|   | Men                | Women | Total | %     |
| <b>American Indian</b>                            | 8                  | 4     | 12    | 0.5%  |
| <b>Black</b>                                      | 63                 | 113   | 176   | 7.5%  |
| <b>Asian</b>                                      | 305                | 330   | 635   | 30%   |
| <b>Mexican American</b>                           | 137                | 132   | 269   | 11.4% |
| <b>Puerto Rican (Main)</b>                        | 9                  | 4     | 13    | 0.5%  |
| <b>Other Spanish</b>                              | 44                 | 40    | 84    | 3.57% |
| <b>Other Ethnic</b>                               | 39                 | 59    | 98    | 4.16% |
| <b>Caucasian</b>                                  | 728                | 598   | 1,326 | 56.3% |
| <b>International</b>                              | 11                 | 8     | 19    | 0.8%  |
| <b>*Unreported</b>                                | 14                 | 7     | 21    | 0.9%  |

*\* All ethnicities were self-reported to the Texas Medical & Dental Schools Application Service (TMDSAS) at the time each applicant made the application.*

| TTUHSC SOM<br>INTERVIEWEES | Entering Year<br>2005 |      |                      |      |           |      |
|----------------------------|-----------------------|------|----------------------|------|-----------|------|
| <b>Total Interviewees</b>  | 776                   |      | 30% of applicants    |      |           |      |
| <b>Men</b>                 | 440                   |      | 57% of interviewees  |      |           |      |
| <b>Women</b>               | 336                   |      | 43% of interviewees  |      |           |      |
| <b>Residents</b>           | 747                   |      | 96% of interviewees  |      |           |      |
| <b>Non-Residents</b>       | 29                    |      | 3.7% of interviewees |      |           |      |
| <b>Avg. GPA</b>            | 3.60                  |      |                      |      |           |      |
| <b>Avg. MCAT Composite</b> | 28.33                 |      |                      |      |           |      |
| <b>MCAT Section Avgs.</b>  | <b>VR</b>             | 9.14 | <b>BS</b>            | 9.92 | <b>PS</b> | 9.27 |
| <b>Avg. Age</b>            |                       |      |                      |      |           |      |

Official Admissions Applicant vs. Matriculant Detail Descriptive Statistics  
2005

| 2004<br>Change |     | <u>Criteria</u> | <u>Applicant Stats.</u> | <u>Matriculant Stats.</u> |
|----------------|-----|-----------------|-------------------------|---------------------------|
| App            | Mat |                 |                         |                           |
|                |     |                 |                         |                           |

|           |            |                              |                 |               |   |
|-----------|------------|------------------------------|-----------------|---------------|---|
| +06       | +01        | Average MCAT VR              | 8.60            | 9.07          |   |
| +04       | -08        | Average MCAT PS              | 8.64            | 9.26          |   |
| +05       | +20        | Average MCAT BS              | 9.18            | 10.00         |   |
| +15       | +13        | Average Composite MCAT       | 26.42           | 28.33         |   |
| 0         | -01        | Average Overall GPA          | 3.44            | 3.56          |   |
| 0         | -02        | Average Science GPA          | 3.34            | 3.47          |   |
| +8.1<br>5 | +10.<br>87 | Average SAT                  | 1226.15         | 1265.00       |   |
| -1.63     | -56        | Average ACT                  | 24.40           | 26.94         |   |
| -2.50     | -2         | Average Age                  | 24.50           | ~24           |   |
| -1        | -2         | Highest MCAT VR              | 14              | 11            |   |
| 0         | -2         | Highest MCAT PS              | 15              | 12            |   |
| 0         | +5         | Highest MCAT BS              | 15              | 19            |   |
| +1        | -3         | Highest Composite MCAT       | 43              | 35            |   |
| 0         | -07        | Highest Overall GPA          | 4.00            | 3.93          |   |
| 0         | 0          | Highest Science GPA          | 4.00            | 4.00          |   |
| 0         | -10        | Highest SAT                  | 1600            | 1530          |   |
| 0         | -6         | Highest ACT                  | 36              | 28            |   |
| -4        | -23        | Highest Age                  | 52              | 33            |   |
| 0         | +3         | Lowest MCAT VR               | 1               | 6             |   |
| 0         | +1         | Lowest MCAT PS               | 3               | 6             |   |
| +1        | 0          | Lowest MCAT BS               | 2               | 7             |   |
| +2        | 0          | Lowest Composite MCAT        | 8               | 20            |   |
| +23       | +08        | Lowest Overall GPA           | 1.81            | 2.77          |   |
| +51       | +07        | Lowest Science GPA           | 1.61            | 2.76          |   |
| -190      | +26<br>0   | Lowest SAT                   | 400             | 990           |   |
| 0         | +1         | Lowest ACT                   | 7               | 21            |   |
| +1        | +1         | Lowest Age                   | 20              | 22            |   |
| +1        | -22        | Number of re-applicants      | 845, 31.83%     | 36, 25.71%    |   |
| NA        | -3         | Number of imported deferrals | NA              | 4, 2.9%       |   |
| +16<br>4  | +1         | MCAT Aug. 04 Examinees       | 1112, 41.88%    | 40, 28.57%    |   |
| +13<br>52 | +16<br>8   | "Disadvantaged"              | 1612,<br>60.72% | 85,<br>60.71% | 1: 840, 2.11%;<br>2: 423, 6.24%;<br>3: 349, 1.70%<br>1: 51, 2.11%;<br>2: 18, 6.24%;<br>3: 16, 1.70% |
| +33<br>2  | 0          | Number of Texas Residents    | 2358, 88.81%    | 133, 95%      |   |
| +35<br>0  | 0          | Totals to TTUHSC             | 2655 (Apps)     | 140 (Mats)    |   |

Historical Statistics:

| <b>TTUHSC SOM ENROLLMENT</b> | Male | Female | Total Enrolled |
|------------------------------|------|--------|----------------|
| <b>1995</b>                  | 323  | 118    | 441            |
| <b>1996</b>                  | 350  | 117    | 467            |
| <b>1997</b>                  | 354  | 135    | 489            |
| <b>1998</b>                  | 343  | 154    | 497            |
| <b>1999</b>                  | 325  | 164    | 489            |
| <b>2000</b>                  | 302  | 182    | 484            |
| <b>2001</b>                  | 302  | 185    | 487            |
| <b>2002</b>                  | 310  | 189    | 499            |
| <b>2003</b>                  | 308  | 203    | 511            |
| <b>2004</b>                  | 218  | 217    | 535            |
| <b>2005</b>                  |      |        | 537            |

| Official Admissions Applicant vs. Matriculant Chronology 1972 - 2005 |            |        |          |          |        |       |          |           |
|--|------------|--------|----------|----------|--------|-------|----------|-----------|
| Year   | Applicants |        |          | Accepted |        |       |          |           |
|  | Male       | Female | Total    | Male     | Female | Total | Avg. GPA | Avg. MCAT |
| 1972<br>(Freshman)   | 314        | 27     | 341      | 31       | 5      | 36    | 3.22     | 534       |
| 1972<br>(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 | --- | --- | --- | ---  | ---   |

## **SCHOOL OF MEDICINE OFFICE OF STUDENT AFFAIRS**

Terry McMahon, M.D., Associate Dean for Academic Affairs

JoAnn Larsen, Ed.D. Director; Tamara Lane, Unit Manager; Karen Turner, M.Ed.. LPC Academic and Career Advisor; Kim Johnson, Senior Administrative Assistant; Inez Sherman, Administrative Secretary; Tonya Wimmer, Administrative Secretary

### **MISSION STATEMENT**

The mission of the Office of Student Affairs and Medical Education 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 Texas Tech 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 students' rights 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 Code of Professional and Academic Conduct that was developed and approved conjointly by students and faculty. The code is compatible with the regulations of the University, but is designed expressly for the School of Medicine. 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 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.ttuhschool.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.

The School of Medicine recognizes that certain disabilities can be accommodated without compromising the standards required by the school or the fundamental integrity of its curriculum. The school is committed to the development of innovative and creative ways of opening its curriculum to competitive and qualified disabled candidates.

### *Background:*

In 1979 the Association of American Medical Colleges (AAMC) convened a Special Advisory Panel on Technical Standards for Medical School Admission. The summary recommendations of that panel are:

The medical education process, which focuses so largely on patients, differs markedly from postsecondary education in fields outside the health sciences.

The primary responsibility for the selection of students and for the content of the curriculum rests with the medical school and its faculty.

The M.D. degree is, and must remain, a broad and undifferentiated degree attesting to the acquisition of general knowledge in all fields of medicine and the basic skills requisite for the practice of medicine.

The guidelines for the admission of students and for the education of students as set forth by the Liaison Committee on Medical Education (LCME) must continue to govern the decisions of medical school faculties.

All students of medicine must possess those intellectual, ethical, physical, and emotional capabilities required to undertake the full curriculum and to achieve the levels of competence required

by the faculty.

Although certain disabilities or combinations of disabilities will prevent some candidates from meeting these minimum technical standards, individual schools should take all necessary steps to prevent discrimination against the disabled.

The 1979 report was based on the proposition that the educational objective of a medical school was to prepare undifferentiated students to enter graduate medical training, and that students admitted to a medical school should have the intellectual and physical powers to gain the knowledge, behaviors, and clinical abilities that they would need to pursue any pathway of graduate medical education. These assumptions took note of the increasing involvement with patients during medical training and reflected concern for the safe care that students must render.

*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.

*Standards for Accreditation of a Medical School:*

The following information is excerpted from the Functions and Structure of a Medical School published by the Liaison Committee on Medical Education. This body is a joint committee constituted by the American Medical Association and the Association of American Medical Colleges. The Liaison Committee is the official accrediting body for

American and Canadian medical schools. A complete copy of the guidelines for accreditation may be found in the Office of Student Affairs.

Medical education required that the accumulation of scientific knowledge must be accompanied by the simultaneous acquisition of skills and professional attitudes and behaviors. It is in 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 physicians. 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 to devise 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, the medical school faculty are guided by LCME standards. 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 experience 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 consistently, quickly, and accurately to integrate all information received by whatever sense(s) 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:

- I. **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. Observations necessitates the functional use of the sense of vision and somatic sensation. It is enhanced by the functional use of the sense of smell.
- II. **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.
- III. **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.
- IV. **Intellectual-Conceptual, Integrative and Quantitative Abilities**: These abilities include measurement, calculation, reasoning, analysis, and synthesis. Problem solving, the clinical skills demanded of physicians, requires 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. In recent years, certain learning disabilities have been recognized as a subset of integrative patterns. The details for definition and diagnosis of learning disabilities are attached as an Appendix to these

## Standards for Curricular Completion.

- V. **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.
- VI. **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. Questions of breach of ethical conduct will be referred to the Student Affairs Committee for resolution under the Code of Professional and Academic Conduct.

In determining the minimum standards for completion of the medical school curriculum, the Texas Tech University Health Sciences Center School of Medicine recognizes that certain disabilities can be accommodated without compromising the standards required by the school or the fundamental integrity of the curriculum. The school is committed to development of innovative and creative ways of opening the curriculum to competitive and qualified disabled candidates. At the same time, the school recognizes the essential need to preserve the standards and integrity of curriculum requisite for the competent and effective physician. Since the treatment of patients is an essential part of the educational program, the health and safety of those patients must be protected at all costs. Therefore, it is not only reasonable but essential for good patient care to require minimum standards for the education of physicians.

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 Educational Programs, the Assistant Dean for Admissions and 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 Grading and Promotions Policy (Section 4.1) 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.

**Revised and discussed with Office of General Counsel  
November 30, 1994**

**Reviews and modified in General Faculty Meeting  
January, 1995**

**Adopted by Executive Committee of the Faculty Council  
March, 1995**

**Discussed and Revised with Office of General Counsel  
January, 1998**

**Reviewed and approved by Executive Committee of the Faculty  
Council  
February, 1998**

**Reviewed by Student Affairs Committee, Grading and  
Promotions Committee, Executive Committee of the Faculty  
Council, Office of General Counsel with Approval of Revisions in  
General Faculty Meeting  
July, 2001**

Appendix: Criteria for Diagnosis of Learning Disability

**Definition:**

A learning disability (as defined by the Rehabilitation Services Administration, RSA PPD-85-1, 1985, p.2) is, "A disorder in one or more of the central nervous system processes involved in perceiving, understanding, and/or using concepts through verbal (spoken) or written language or nonverbal means." 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 Ad Hoc Committee on Learning Disabilities of the Association of American Medical Colleges (AAMC) has promulgated guidelines for the assessment of learning disabilities and these are used as a basis for the guidelines at TTUHSC School of Medicine.

### **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 Weschler 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 (TASK)
  - Scholastic Abilities Test of Adults
- Or specific achievement tests such as:
- the Test of Written Language-2 (TOWL-2)
  - Woodcock Reading Mastery Tests-Revised
  - or the Stanford Diagnostic Mathematics Test.

The Wide Range Achievement Test-Revised is **not** acceptable.

- c. 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 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 Educational Programs, the Assistant Dean for Admissions and 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 Examination 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.

**Discussed and Revised with Office of General Counsel  
January, 1998**

**Reviewed and approved by Executive Committee of the Faculty Council  
February, 1998**

A detailed copy of the Standards for Curricular Completion is available from the Office of Admissions and Office of Student Affairs:

*Procedure for Students with Disabilities*

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. An application for accommodation may be obtained from the TTUHSC Office of Student Services and must be presented in writing to the TTUHSC Office of Student Services along with supporting documentation about the disability from an appropriate specialist and the proposed accommodation(s). 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 Educational

Programs, the Associate Dean for Admissions and Minority 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. An application that is subject to disapproval will be discussed with the ADA Compliance Office and the Office of General Counsel. 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 Application for Accommodation and supporting documentation will be sent to the ADA Compliance Officer for official record keeping.

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 in addition to and separate from any request for accommodation by the Texas Tech School of Medicine.

The School of Medicine has traditionally been noted for the open friendliness of its student body and faculty. The relatively small size of its classes makes for an enhanced ability to get acquainted with each other. Lubbock, Amarillo, and El Paso offer good quality of life for students and student families. In the first two years at Lubbock, the geographic relationship of the School of Medicine to the Texas Tech University campus provides a wealth of recreational and cultural experiences. Housing is easily available and relatively economical and the non-humid climate is an agreeable one. Thus, the unstructured "quality of student life" is generally a good one. There are a number of organizations and resources that are designed to facilitate the ability to enjoy and gain from the medical school experience.

**Additional information may be obtained from:**

**Office of Admissions 2B116  
Texas Tech University Health  
Sciences Center  
School of Medicine  
3601 4<sup>th</sup> Street  
Lubbock, TX 79430  
Phone: (806) 743-2297  
Fax: (806) 743-2725**

**Office of Student Affairs 2B130  
Texas Tech University Health  
Sciences Center  
School of Medicine  
3601 4<sup>th</sup> Street  
Lubbock, TX 79430  
Phone: (806) 743-3005  
Fax: (806) 743-4165**

**Please note that the most current version is always available online  
at:**

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

**AND via the Official Medical Student Handbook produced by the  
Office of Student Affairs <http://www.ttuhschool.edu/som/studentaffairs>**

### **HEALTH SCIENCES CENTER STUDENT SERVICES:**

HSC Student Services is an institutional centralized information office that provides an array of student support services. This office collaborates with the student affairs office to offer the best assistance to aid in the success of TTUHSC students. The office is located in the Health Sciences Center in room 2C400.

Texas Tech University Health Sciences Center  
3601 4<sup>th</sup> St., MS 8310  
Room 2C400  
Lubbock, TX 79430  
Phone: (806) 743-2300  
Fax: (806) 743-3027  
Web: <http://www.ttuhscc.edu/student-services>

### **THE OFFICE OF THE REGISTRAR:**

Serves as custodian of the students' permanent academic records. The Registrar's Office is also responsible for registration, grade reports, transcript requests, enrollment and veteran certification.

Phone: (806) 743-2300

Web: <http://www.ttuhscc.edu/student-services/admission.htm>

### **THE OFFICE OF FINANCIAL AID:**

Serves students desiring financial assistance or information regarding loans and scholarships. Federal, state, and local programs are available to assist students who appropriately demonstrate financial need. Details are available elsewhere in this catalog.

Phone: (806) 743-3025

Web: <http://www.ttuhscc.edu/FinancialAid/default.asp>

### **THE OFFICE OF STUDENT SERVICES:**

Serves as a centralized information center for students. We work closely with the School's Student Affairs Office to ensure quality customer service. Examples of some of the services available are listed below.

Web: <http://www.ttuhscc.edu/student-services>

### **Counseling Center:**

The Texas Tech University Counseling Center is available to aid HSC students in accomplishing their academic and personal development goals.

Phone: (806) 742-3674

Web: [www.depts.ttu.edu/scc](http://www.depts.ttu.edu/scc)

### **Student Legal Services:**

The Texas Tech University Office of Student Legal Services provides students with confidential legal advice about personal legal matters.

Web: [www.depts.ttu.edu/studentmediationcenter](http://www.depts.ttu.edu/studentmediationcenter)

### **Student Organizations:**

As a part of the Texas Tech University Health Sciences Center, students have the opportunity to join a variety of registered student organizations. The HSC Student Services web site posts a list of these organizations, their purpose and contact information at:

[www.ttuhscc.edu/student-services/organizations](http://www.ttuhscc.edu/student-services/organizations)

### **Student Synergistic Center: (F. Marie Hall Synergistic Center)**

The F. Marie Hall Synergistic Center provides students with a place to enjoy some rest and relaxation. Students with an HSC ID may access the center at all hours. The smoke-free lounge is equipped with ping-pong tables, pool tables, foosball, air hockey, shuffleboard, exercise room, shower facilities, TV area, telephones, refrigerators and microwaves. Contact HSC Student Services about policies, equipment upkeep or other concerns. View the Synergistic Center slideshow at:

[www.ttuhscc.edu/Student-services/syn](http://www.ttuhscc.edu/Student-services/syn)

### **Registration:**

Students must register for classes in the Office of the Registrar. No credit will be given for courses in which the student is not registered.

## **RECREATIONAL OPPORTUNITIES**

Students enrolled in the HSC are entitled to enjoy the recreational and cultural advantages of a major university. In the first two years for all students and in the third and fourth years for Lubbock-based students, student fees provide membership in the TTU Student Recreational Center (SRC). This is an outstanding facility with excellent equipment, space, and programs. An olympic-size pool provides indoor/outdoor swimming and sunning. There are lighted tennis courts; running tracks (1-indoor); handball, racquetball, and squash courts; basketball courts; weight training equipment; aerobics classes; and playing areas for intramural sports of all descriptions.

The Department of Recreational Sports also sponsors periodic ski trips, climbing expeditions, and raft trips. Between the University and the HSC campuses, there is an active intramural sports program.

## **LIBRARY**

Libraries of the health sciences exist at all four of the regional academic campuses. All libraries are fully computerized.

A new, state-of-the-art facility has recently been completed on the Lubbock campus. The new library has over 50,000 square feet of space and features some 30 group study rooms and 64-workstation computers.

The Texas Tech University Health Sciences Center Library presently contains more than 250,000 total volumes, over 2,000 journal subscriptions, 2,500 electronic journals, and over 24,000 electronic books. The electronic

resources of the library can be accessed of campus with assigned permission. In addition, the Library has a large audiovisual collection of slides, videocassettes, motion pictures and microcomputer software. Library services and collections are located on each of the four campuses with Lubbock housing the major collections and serving as the administrative and dispersing center.

The Library is completely automated with an integrated system, the Library Information System (LIS) which includes an on-line catalog and circulation. Full Medline, CINAHL, IPA, and Micromedex are also available off of the Library home page. Computerized search services with access to over 75 data bases on a variety of health-related subjects are available through the mediation of skilled searchers.

The Library currently manages a teaching-learning center (TLC) which houses the non-print collection. Additionally, the TLC has a variety of microcomputers available for student use. The Teaching-Learning Center also assists students in the learning experience through formal classes as well as individual instruction.

Formal classes in search strategy of bibliography databases are conducted frequently in order to prepare the student to be able to access the vast amount of data available. Other courses in life-long learning, techniques of how to filter bibliographic data and other formal courses are offered through the Library.

Clinical medical librarians are assigned to the various clinical departments and make rounds with faculty, residents and students. They are the bibliographic resource for the teaching team.

The Lubbock library is currently open for 105 hours per week.

Students also have access to the Texas Tech University Library, which contains more than 1.5 million items, including U.S. Government documents and substantial science holdings.

### **TTUHSC DIGITAL NETWORK**

Students of the School of Medicine have access to the digital network established and maintained by the Division of Information Technology. Web access is provided for students in TTUHSC's labs, classrooms, study areas, student center, and libraries. Faculty, staff, and students have access to the TTUHSC's secure wireless network on each of the 4 regional campuses. This network consists of an ATM or Gigabit Ethernet campus LAN environment with core speeds of 625 or 1,000 megabits per second and ATM OC-3 (155 megabits per second) connectivity to each regional campus. Network connectivity for faculty, staff, and students is available at 10/100 megabits to the desktop.

All students of the School of Medicine are assigned email accounts and web space for maintaining student sites. Electronic communication has become an essential part to the curriculum and communication needs of the faculty and students.

**Additional information may be obtained from:**

**The Office of Registrar  
Texas Tech University Health Sciences Center  
3601 4th Street, Room 2C400, MS 8310  
Lubbock, Texas 79430  
Phone: (806) 743-2300  
Fax: (806) 743-3027**

**Web: <http://www.ttuhscc.edu/StudentServices/admission.aspx>**

## **STUDENT ORGANIZATIONS**

### **HSC STUDENT SENATE**

The mission of the HSC Student Senate is to generate new and exciting opportunities for the betterment of the student body while simultaneously enhancing the image of the Health Sciences Center. Student Senate elections are held each school year in April for returning students and in September for incoming students. Student Senate includes representatives from Lubbock, Amarillo, Odessa/Midland, and El Paso. To be eligible you must be a registered HSC student with a 2.5 GPA or above.

### **MEDICAL STUDENT GOVERNMENT**

The Medical Student Government (MSG) was established by students and faculty in 1984. Each class is represented by its President, Vice-president, and two additional elected members. The governing body acts as the voice of the medical students to the Dean, and is the interface between the student body and the administration. It appoints members to standing committees of the school and serves as the Honor Council of the student body. The Vice-presidents of the junior class at Amarillo, Lubbock, and El Paso serve as the student representatives on the committee that determines priorities for campus transfer. Based on the allocation of Student Service fee monies from the HSC Student Senate, MSG may serve as an optional resource for registered student organizations needing sponsorship monies. The Medical Student Government is staffed by the Office of Student Affairs, to which it is advisory on all matters of student life.

## **NATIONAL AND STATE ORGANIZATIONS**

TTUHSC School of Medicine has chapters of a number of national and state medical organizations such as the American Medical Association/Texas Medical Association (AMA/TMA) Medical Student Section, the American Medical Student Association (AMSA), Student National Medical Association (SNMA), and the American Medical Women's Association (AMWA). Membership in all organizations is open to all medical students.

## **LOCAL ORGANIZATIONS**

There are a number of "special interest" groups that are officially sanctioned by the Medical Student Government, from which they receive full or partial funding. These include, but are not limited to, Emergency Medicine Club, Family Practice Student Association, Internal Medicine Club, Obstetrics/ Gynecology Club, Multicultural Health Issues Association (MCHIA), Pediatrics Club, Psychiatry Club, Radiology Club, Society for Medical Advancement of Research and Technology (SMART), Student Organization for Animals and Animal Research (SOFAAR), Surgery Club, and Phi Beta Pi service fraternity. Events are planned around the organization's primary areas of interest. Membership in each club is open to and encouraged for all students. The clubs frequently combine efforts and resources to sponsor speakers and events.

## **ALPHA OMEGA ALPHA**

The Zeta Chapter of Alpha Omega Alpha honor society was chartered at TTUHSC in 1982. Membership in this society is limited to 1/6 of a graduating class, selected from its academic top quartile. Zeta Chapter selects one-fourth of its members in their Junior year and the other three-fourths in their Senior year.

There are a number of local, state and national organizations available for student membership.

### **TTUHSC Medical Specialty Clubs**

**EMSA (Emergency Medicine Student Association)** - This organization presents lecture series and open forum discussion to promote and enhance understanding of emergency medicine.

**FPSA (Family Practice Student Association)** - Sponsored by the Department of Family Medicine, this organization conducts lectures and attends meetings to promote interest in the specialty of Family Medicine.

**GSA (Graduate Student Association/SOM)** - This organization coordinates graduate student extracurricular activities and provides a source of communication between the graduate students and the administration.

**Internal Medicine Club** - Sponsored by the Department of Internal Medicine, this organization holds lecture series to educate students about the field of Internal Medicine and its subspecialties, utilizing local and area physicians who speak about their practice.

**Medical Student Government** - This organization consists of class presidents, vice presidents, and treasurers. The Student Government organizes and directs the affairs of the medical students and provides a means of communication among the student body, faculty, and administration.

**Multicultural Club** - This organization presents an enlightening view of our various ethnicities and cultural backgrounds that are prevalent in our society and specifically within the physician's scope of practice and how they beneficially can impact our careers.

**OB/BYN (Obstetrics/Gynecology Club)** - Sponsored by the Department of OB/GYN, this organization presents lecture series to provide information about the discipline of OB/GYN.

**Pediatrics Club** - Sponsored by the Department of Pediatrics, this organization presents lecture series to provide information about the field of Pediatrics on current issues and topics such as diseases, treatments, problems, and new procedures.

**Psychiatry Club** - Sponsored by the Department of Psychiatry, this organization presents lecture series to provide exposure to various aspects of the field of Psychiatry.

**Peer Tutors** - This organization's purpose and aims are enhancement of medical students' academic performance; creation, utilization, dissemination and archiving of study guides; conduct tutoring sessions for the benefit of undergraduate medical students.

**Student Senate** - Student organizational body representing all schools in the Health Sciences Center. This organization provides HSC students a voice and a forum for airing concerns of mutual interest to all students. In addition, the Senate promotes and coordinates activities designed to enhance student life.

**Surgery Club** - Sponsored by the Department of Surgery, this organization presents lecture series to inform and create interest in the medical students in the various aspects and techniques in surgery.

**Anesthesia Club** - The purpose of this organization shall be to promote and enhance the understanding and appreciation of current and future topics and procedures in anesthesia via lecture and open forum discussion.

**Biotech Club** - The purpose of this organization is to provide students of the Health Sciences Center insight into the current trends in biotechnology as it is associated with the present and future states of medicine.

**International Medicine Club** - The purpose of this organization is to provide education about and access to opportunities for medical students and residents to study and work in cultures outside their own.

**Medical Ethics & Humanities** - The purpose of the Medical Ethics ad

Humanities (MEHS) is to foster an awareness and vigorous dialogue among Health Sciences Center students in the areas of medical ethics and humanities. Our intent is to provide both an opportunity for students with an interest in these areas to explore their interest as well as to encourage others to become involved in preparation for clinical ethical decisions.

**Medical Spanish Club** - The purpose and aim of Medical Spanish Club is to give TTU Health Sciences Center students the opportunity to improve Spanish language skills with a focus on health care related vocabulary. To provide students the opportunity to practice their skills in the community via health care events.

**Medical Student Services** - The MSSO shall organize community services opportunities for health science students; help support & coordinate existing community service projects of other organizations; encourage communication among the individual organizations that have a volunteer committee or chair; promote volunteerism and camaraderie and spread awareness of medical school to the community.

**Multi-Cultural Club** - The MHIA will serve as a professional student organization for students at the TTUHSC who are interested in health care issues pertaining to minority individuals.

**Orthopaedic Surgery Club** - The purpose is to educate its members about the field of orthopaedic surgery through interaction with physicians and residents during meetings of the club.

**Phi Beta Pi** - To unite fraternally students of medicine who are socially and intellectually compatible. To encourage and uphold, as befits medical doctors the highest standards of scholarship, conduct and service. In these endeavors, mutual assistance is an objective of practical and primary concern. To promote the advancement of the science of medicine and the mutual interests of undergraduate students of medicine as well as the graduates engaged in the practice, teaching and research of medicine. To assist one another by prudent counsel and by material aid so far as may be consistent with individual abilities and the best interests of the fraternity.

**Road Raiders** - The purpose of this organization is to provide medical

students and faculty an opportunity to spend time running outdoors. In addition, this organization's purpose is to promote camaraderie, good exercise habits, and to support the Lubbock community.

**WTMSC (West Texas Medical Students for Choice)** - To promote campus awareness of women's health issues, specifically the need for reproductive health freedom.

### **National and State Organizations**

**AMA (American Medical Association)** - The organization representing and speaking for allopathic and osteopathic physicians on all aspects of medicine and the physician's role. The Medical Student Section is a subset of the AMA and is comprised of student delegates from each of the nation's medical schools. The TMA is the representative organization for the Texas doctors and students to the AMA.

**AMSA (American Medical Student Association)** - National organization representing medical students from all allopathic and osteopathic medical schools. Responsibilities involve student advocacy as well as issues concerning all of medicine through information, debate and political lobbying. AMSA is not affiliated with the AMA. The local functions are lectures on current topics of medicine, and activities that support the medical students of Texas Tech University Health Sciences Center.

**AMWA (American Medical Women's Association)** - National organization encouraging women in medicine. Local functions include lectures on topics pertaining to women in medicine.

**CMDA (Christian Medical & Dental Association)** - A national organization involved in supporting the Christian practice of medicine and the Christian physician.

**PHI BETA PI** - National medical fraternity (co-ed) that promotes both social and service-oriented, extracurricular involvement in medical school. Local functions include luncheon meetings and guest speakers, evening social events, and community service projects.

**SNMA (Student National Medical Association)** - This organization encourages women and minorities in the health care professions. Local activities include presentations and sponsorship of programs for

minority youth.

**TMA (Texas Medical Association)** - Organization representing Texas physicians and students on concerns of medical practice and patient advocacy. The Medical Student Section is the student representation to the TMA on issues concerning medical education and the future practice of medicine. Local functions include lectures on current topics and trends in medicine, fundraising, and community service.

### **STUDENT HEALTH SERVICES**

The Family Practice Center of the Department of Family Medicine provides health services at no charge to HSC students who are currently enrolled and have paid the Student Health Fees as part of tuition and fees. You must present a Student I.D. card at the time of the appointment.

The Student Health Fee covers only those services provided in the Family Practice Center and related laboratory and radiology services performed at UMC. All other charges incurred are your responsibility.

### **Clinic Hours**

- 8:00 a.m. to 7:30 p.m., Monday-Thursday
- 8:00 a.m. to 5:00 p.m., Friday
- Patients are seen by appointment, beginning at 8:15 a.m.
- If you need to be seen by a physician for a sudden illness, please call that day as early as possible.

When you check in, please inform the receptionist that you are an HSC student. If you come to the clinic without an appointment, it may be necessary for you to wait for a physician. Immunizations, paper work, and routine procedures are not ordinarily considered urgent care circumstances, and may not be taken care of on the same day as requested.

### **After-Hours & Weekends**

- **If you previously have been a patient in the Family Practice Center**, contact the physician on call by calling 743-2757.
- **If you are not yet a Family Practice patient**, you may choose any urgent care center or emergency room for your care. You will be responsible for these charges.

### **STUDENT HEALTH FEES**

The Student Health Fee covers only routine office visit services provided in the Family Practice Center. This fee does not cover the cost of medicine or supplies used in conjunction with the office visit. If your family physician determines that you need a referral to a dermatologist or an allergist, appointments may be scheduled at Thompson Hall; these two specialty services are covered under your student health fees. **Please call the FPC at 743-1100 ext. 236 before your visit with questions about covered services.**

### **STUDENT HEALTH INSURANCE**

You are **REQUIRED** by Texas Tech University Health Sciences Center (TTUHSC) to pay a Medical Services Fee each semester. With this fee, you can access healthcare in the clinic and see a nurse or physician at no charge for minimal or limited minor problems. Health insurance is not required to obtain services from the Family Practice Clinic. Health plan coverage is strongly **recommended** for all students to cover major medical, emergency care, specialty care, and pharmacy as these services can be expensive. TTUHSC **highly encourages** and **strongly recommends** that each student possess medical insurance for emergency situations, and for basic medical care needs, especially since students may be exposed to disease during clinical training. You may obtain suitable coverage from the vendors listed on our web site at a very competitive price if you do not have other insurance. Visit the HSC Student Services web site for insurance information at: <http://www.ttuhscc.edu/StudentServices/studenthealth.aspx>

### **FINANCIAL INFORMATION**

#### **Tuition and Fees 2005-2006**

Tuition and fees for each academic year are due by the dates established by the Bursar's Office. Detailed payment information is located on the Bursar's website at:

<http://www.fiscal.ttuhs.edu/busserv/bursar>

| <b>Tuition and Fees</b>                  |                    |
|--|--------------------|
| Tuition                                  | \$9,450.00*        |
| Laboratory Fee                           | 32.00              |
| Microscope and Educational Materials Fee | 120.00             |
| Malpractice Insurance                    | 25.00              |
| Long Term Disability                     | 40.00              |
| Student Union Fee                        | 12.50              |
| Student Services Fee                     | 315.00             |
| Recreation Center Fee                    | 150.00             |
| Medical Services Fee                     | 158.75             |
| ID Card Maintenance Fee                  | 13.75              |
| Information Technology Fee               | 240.00             |
| Record Processing Fee                    | 12.50              |
| Student Athletic Fee                     | 102.00             |
| <b>Total Tuition and Fees</b>            | <b>\$10,671.50</b> |

\*For non-residents of the State of Texas, tuition is \$22,550.00 per year for 2005-2006, making tuition and fees \$23,771.50.

Installment Payment Plans are available for tuition and fees. An installment fee of \$25.00 per semester will be added to the account balance.

The estimated student budget is \$ 20,062 for housing, food, and other living expenses.

**For further information regarding tuition and fees, contact:**

**TTUHSC Bursar's Office - Room 2C188**  
**MS 6288**  
**Lubbock, TX 79408**  
**Phone: (806) 743-1880, ext. 239 or 238**  
**E-mail: [karrie.boyd@ttuhsc.edu](mailto:karrie.boyd@ttuhsc.edu)**  
**Web: <http://www.fiscal.ttuhsc.edu/busserv/bursar/>**

### **Campus Parking (Optional)**

Student parking is available at the medical school campus locations. Any student wishing to park on the campus will be required to obtain a parking permit and pay the appropriate Vehicle Registration Fee.

| <b>Vehicle Registration (2004 – 2005)</b> |         |
|---|---------|
| 9-month parking permit                    | \$59.00 |
| 12-month parking permit                   | \$78.00 |

For further information regarding Traffic and Parking, contact:  
TTUHSC Traffic and Parking - Room BB097  
Mail Stop 6290  
Lubbock, TX 79408  
Phone: (806) 743-2557  
Web: <https://www.fiscal.ttuhsc.edu/parking>  
E-mail: [parking@ttuhsc.edu](mailto:parking@ttuhsc.edu)

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

### **REFUND OF TUITION AND FEES**

A medical student who officially withdraws from the TTUHSC School of Medicine during the course of an academic year may be entitled to a refund of tuition and fees in proportion to the length of time between the first class day of each semester and the date of official withdrawal

in accordance with the schedule below. Forms for withdrawal are available from the Office of the Registrar.

| <b>*Withdrawal Timeline</b>  |      |
|------------------------------|------|
| Prior to the first class day | 100% |
| During the first class week  | 80%  |
| During the second class week | 70%  |
| During the third class week  | 50%  |
| During the fourth class week | 25%  |
| After four class weeks       | None |

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

### **VETERAN'S EXEMPTIONS FROM FEES UNDER THE HAZLEWOOD ACT**

Men and women who are legal residents of Texas at the time of entry into the Armed Forces and who have been legal residents of Texas for a period of not less than twelve months immediately preceding their registration in Texas Tech University Health Sciences Center School of Medicine are by state law exempt from the payment of all fees except laboratory and library fees or similar deposits and fees or charges for room and board: all nurses and honorably discharged members of the Armed Forces of the United States who served during the Spanish-American War, World War I, World War II (except those who were discharged from service because they were over the age of 38 or because of a personal request on the part of the person that he be discharged), the National Emergency which began on June 27, 1950 (also referred to as the Korean War), and all persons who were honorably discharged after service on active military duty, excluding training, for more than 180 days during the Cold War (which began on the date of the termination of the Korean War). These exemptions also apply to the children of members of the United States Armed Forces who were killed in action or died while in service during World War II, the Korean War, or the Cold War, and to orphans of members of the Texas National Guard and the Texas Air National Guard killed since January 1, 1946, while on active duty and certain children of veterans who died of military related causes and show financial need. This waiver must be applied for by the census (12th class day) date.

*NOTE:* The exemption from fees provided for above may be affected if, at the time of registration, he/she is eligible for educational benefits under federal legislation in effect at the time of his registration.

Discharge papers must be presented by the student to the Registrar's Office, who will in turn certify the student's eligibility at the time of registration.

## **FINANCIAL AID**

The Texas Tech University Health Sciences Center Office of Student Financial Aid is committed to working with each student in identifying financial resources to meet their financial needs to pursue their medical education.

Financial Aid is available to School of Medicine students in different forms. Funds that do not require repayment consist of Federal and State Grant funds and Scholarships from state, local and private funds. Funds that must be repaid consist of Federal, State, Local and Private Loan Funds. Financial aid is available for tuition, fees, books and supplies and living expenses for each academic year. Living expenses include housing, transportation expenses (vehicle insurance, gasoline and regular maintenance), personal /miscellaneous (health and life insurance).

These funds are offered to students on the basis of financial need and other qualifications as specified by the Department of Education and the donor organizations.

Financial need is defined as the difference between the anticipated costs of attending the school and the amount of money available to the student from all sources. A needs analysis calculation is required of applicants for most financial aid programs.

The scholarships administered by the School of Medicine are awarded based on various factors. These include, but are not limited to, financial need, academic achievement, class standing, and areas of specialization.

No student or prospective student shall be excluded for participation in or be denied the benefits of any financial aid program on the basis of race, color, national origin, religion or sex.

Students seeking financial aid or additional information should contact:

The Office of Financial Aid  
Texas Tech Health Sciences Center  
3601 4<sup>th</sup> Street  
Lubbock, TX 79430  
Phone: (806) 743-3025  
Fax: (806) 743-3027  
Web: <http://www.ttuhsoc.edu/FinancialAid/>  
E-Mail: [financial.aid@ttuhsoc.edu](mailto:financial.aid@ttuhsoc.edu)

## **GRANTS**

TPEG - Texas Public Education Grant

## **SCHOLARSHIPS**

For a listing of all scholarships available to medical students, please visit the TTUHSC, Office of Financial Aid web page:

<http://www.ttuhsoc.edu/som/studentaffairs/MedicalSchoolfinancialaid.aspx>

For a listing of scholarships available to ethnic minority students applying to the health sciences, including medicine, please visit the website sponsored by the TTUHSC Office of Diversity & Multicultural Affairs:

*Minority Scholarship Search Engine*

<http://www.ttuhsoc.edu/diversity/scholarships/scholarships.aspx>

## **LOAN PROGRAMS (LONG TERM)**

Administered through the Office of Student Financial Aid-HSC:

Federal Family Education Loan Program (FFELP)

    Federal Stafford Loan Program

    Federal Unsubsidized Stafford Loan Program

Federal Perkins Loan Program

Health Education Loan Program (HELP)

Primary Care Loan (PCL)

Robert Wood Johnson Loan Fund

Mexican-American Physicians Association Loan Program

Ralston Student Loan Program

Texas Medical Association: Administered through funding agencies:  
Mae Owen Trust of Texas Medical Association

## **HOUSING**

The School of Medicine does not furnish living quarters for its students. Each student makes his/her own arrangements. Most students live in apartments or houses in the community. The Office of Student Affairs prepares an annual roster of available accommodations. Texas Tech University does maintain 17 residence halls which accommodate approximately 7,300 students for board and room. Medical students are eligible for university housing if they desire it.

Students interested in university housing should contact:

Texas Tech University Housing and Dining Office

Box 41141

Texas Tech University

Lubbock, TX 79409-1141

Phone: (806) 742-2661

Fax: (806) 742-2696

Web: <http://www.hous.ttu.edu>

**SCHOOL OF MEDICINE  
OFFICE OF FACULTY AFFAIRS & DEVELOPMENT**

Thomas Tenner, Ph.D., Interim Associate Dean for Faculty Affairs & Development,  
Professor of Microbiology and Immunology

Charla Cothrin, Senior Administrative Assistant; Karen Thomas, Senior Office Assistant

The mission of the Office of Faculty Development in the School of Medicine is to assist faculty in achieving the highest level of personal attainment in teaching and research, and in sustaining their vitality both now and in the future.

| Full-Time Faculty | Amarillo | El Paso | Lubbock | Odessa | Total |
|-------------------|----------|---------|---------|--------|-------|
|                   | 73       | 148     | 236     | 43     | 500   |

This data was posted to LCME during the Fall of 2005.

## **SCHOOL OF MEDICINE OFFICE OF CURRICULUM**

Lynn Bickley, M.D., Associate Dean for Curriculum,  
Professor, Internal Medicine and Neuropsychiatry

Victor L. Gonzales, Jr., BGS, MSCIS, Director for Educational Technology;  
Matthew Andersen, Programmer I; Holy Milne, Senior Administrative  
Assistant

Location: 2B131

Mail Stop: 8326

Phone: 806-743-5568

Fax: 806-743-5569

Web: <http://www.ttuhschool.edu/som/curriculum>

### **THE DOCTOR OF MEDICINE PROGRAM**

#### *Undergraduate Medical Education*

Texas Tech University School of Medicine is committed to excellence in the medical education of generalist physicians in preparation for training in any clinical specialty. Our School launches 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
- Active management of curricular content both within and across all four years

Our School has responded to the Association of American Medical Colleges and the national movement to realign curricula for training physicians to practice the best of patient-centered scientific care in the twenty-first century. Our new curriculum emphasizes competency-based education, focusing on the skills and compassion that distinguish patient care in our profession. Our dedicated teaching faculty has responded fully to this unparalleled opportunity to reshape our curriculum so that our students are the best prepared doctors and our 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

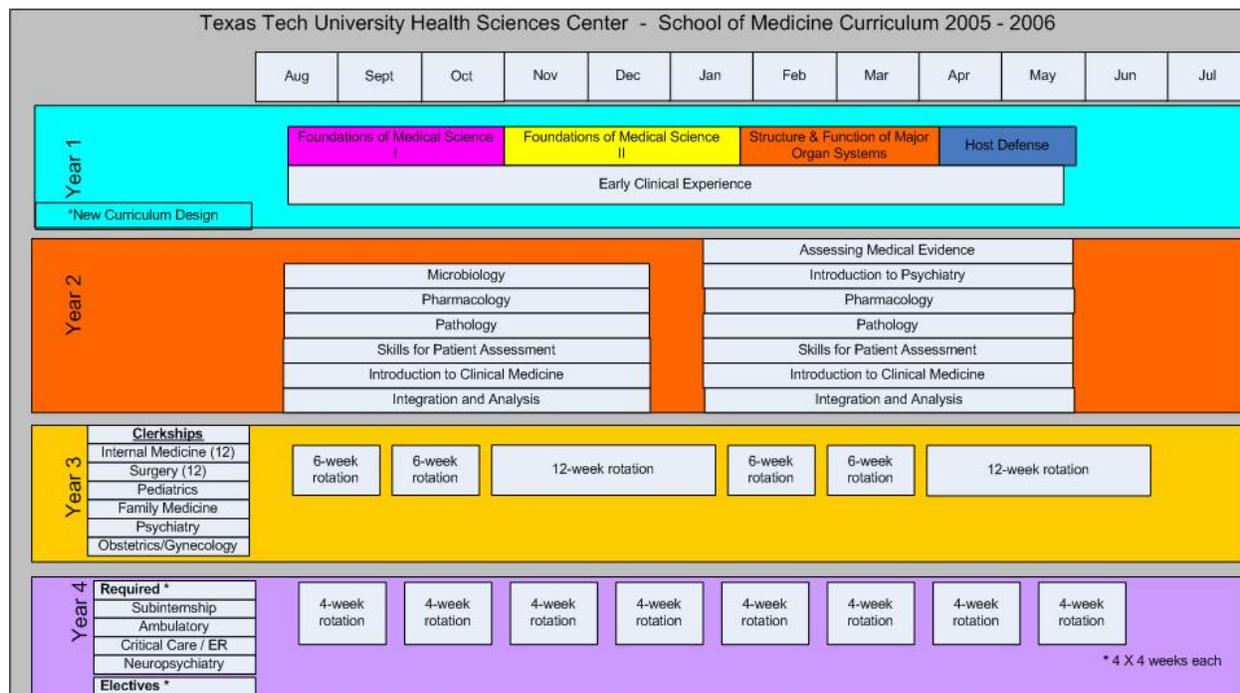
sensitive manner.

To ensure distinction in medical education, Dean Homan and Interim Dean, Dr. Mittermeyer, have fully supported the offices charged with our educational mission: the Office of Student Affairs and Educational Programs, 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 our School. These offices, in conjunction with the Educational Policy Committee, the faculty and student body that oversees adherence of our curriculum to national and School standards, have placed student assessment and feedback at 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, we have limited contact hours to ~22 per week and lecture hours to ~10 per week. We have expanded opportunities for interactive learning through small group tutorials, labs, problem-based learning, team-learning, and web-based instruction.

The management of the curriculum has been formally endorsed by the Liaison Committee on Medical Education. The Liaison Committee on Medical Education (LCME) represents the Association of American Medical Colleges and the American Medical Association as the national accreditation body for medical schools. In May 2002 the Texas Tech University Health Sciences Center School of Medicine received a full seven year accreditation, the longest period of accreditation awarded to a medical school of high quality.

### **CURRICULUM, 2005 - 2006**

The curriculum for 2005-2006 shows the blending of the new curriculum in Year 1 with our traditional curriculum for Years 2-4.



Rev. 02.22.2005  
V. Gonzales - Office of Curriculum

**Year 1:** The first year is divided into four interdisciplinary blocs: Foundations I, Foundations II, Structure and Function of Major Organ systems, and Host Defense. Running continually throughout this year is Early Clinical Experience, which introduces students to skills for patient assessment. More specifically, these five equally weighted elements have the following objectives:

- 

In Year 1 an elective in medical Spanish is also available. Between years one and two there is also opportunity for clinical or research experiences. Year 1 will serve as preparation for the new curriculum in Year 2 for the Class of 2009. That curriculum for Year 2 features an interdisciplinary organ-based systems approach, combining principles and content from microbiology, pathology including pathophysiology, pharmacology, introduction to psychiatry, and introduction to clinical medicine.

**Year 2:** Year 2 in 2005-2006 continues the department-based courses in the schematic above: Microbiology, Pathology, Pharmacology, Introduction to Psychiatry, and Introduction to Clinical Medicine. Year 2 also builds on and integrates knowledge of the basic sciences through the Integration and Analysis course, where students work in teams to solve interdisciplinary problems. Skills for Patient Assessment provides extensive workshops on physical examination and practice sessions with student partners and with patients on interviewing. Additional coursework focuses on an introduction to epidemiology, biostatistics, and assessing medical evidence. Basic Cardiac

Life Support (BCLS) certification is required prior to beginning Year 3.

**Years 3 and 4:** In Year 3 students move to the clinical arena on one of our three campuses, Lubbock, Amarillo, or El Paso. Each student focuses on one clinical discipline at a time, and experiences rotations in two twelve-week clerkships in Internal Medicine and Surgery, and in four six-week clerkships, in Family Medicine, Obstetrics/Gynecology, Pediatrics, and Psychiatry. 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 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 seen by students to ensure the necessary breadth of exposure to clinically challenging patients.

In Year 4 each of the regional campuses in Amarillo, El Paso, and Lubbock offer both required and elective rotations. Elective rotations are also offered in Odessa. Students complete a one-month clerkship in Neurology, two one-month selective experiences chosen from Family Medicine, Obstetrics/Gynecology, Pediatrics, or Psychiatry, a subinternship chosen from Internal Medicine, Surgery, or Pediatrics, and four months of broadly based elective experiences. Each student plans an individualized program that is reviewed by a faculty committee to ensure breadth of general educational experience and appropriateness to the particular student's academic background. In this manner, each student can test or compare various disciplines as potential career choices, can shore up perceived areas of weakness, and can broaden exposures to a variety of experiences and locations.

During Years 3 and 4, each student has a faculty advisor who assists with decisions about career options and residency plans. The Office of Student Affairs maintains active orientation programs and provides individualized attention and counseling for students selecting residencies. In the past several years, Tech graduates have competed successfully in the National Resident Matching Program with approximately 80% of students being matched with their first, second, or third choice of postgraduate training programs.

## **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 contacts each student who demonstrates any indication of academic difficulty and explores with the student possible areas of difficulty with appropriate counsel or referral for resolution. Personnel in the SOM Office of Students Affairs are

trained to provide individual academic counseling as well as help students coordinate study groups.

Assistance in personal problems that result in academic difficulty is likewise available from a variety of resources including the HSC Student Assistance Program and the Texas Tech University Counseling Center.

## **GRADING**

Most courses are graded on a numerical scale with a grade of 75 considered as a satisfactory score and a grade of less than 70 as a failing score for a course. Some Year 1 and 2 courses as well as year three senior electives are graded on an Honors/Pass/ Fail system. In the clinical clerkships, numerical scores are accompanied by narrative descriptions of performance. A weighted grade point average based on grades and course contact hours is calculated annually for each academic year and cumulatively for progress through the curriculum. Decisions on progression through the curriculum are based on review of the cumulative record and on demonstration of professional behavior.

### **ACADEMIC ADVANCEMENT**

The Grading and Promotions Committee is an elected faculty committee responsible for reviewing the academic and professional progress of each student at least annually. It identifies students as unconditionally promoted, promoted with conditions, needing remedial work, needing to repeat all or part of an academic year, or dismissed. This Committee reviews student progress at the end of each semester and makes decisions based on written policies. There is a published series of steps that protect due process. The Dean as Chief Academic Officer makes the final decisions.

Satisfactory academic achievement is only one of several criteria used in judging the fitness of a student for the practice of medicine. Demonstration of clinical competence, integrity, and professional behavior are also considered in review of the student's progress through the curriculum.

Under usual circumstances an academic record with a minimum grade of 75 in each course is considered satisfactory for progress to the next academic year. Each record is reviewed in the context of the individual student's cumulative cognitive and non-cognitive performance through the total curriculum.

### **UNITED STATES MEDICAL LICENSING EXAMINATION (USMLE)**

TTUHSC medical students are required to take and pass Step I of the United States Medical Licensing Examination (USMLE) following completion of their second year. Since the test is a component of application for licensure to practice medicine, the student is required to pay for the examination. Passing USMLE Step I is a condition for promotion to Year IV of the curriculum. Students will also be required to take and record a score on Step II, both components, prior to graduation. While passing Step II is not currently required as a

condition for graduation, this may change in the future and would prompt an addendum will be inserted into the catalog.

**COURSES & CLERKSHIPS FOR 2005 – 2006 ACADEMIC YEAR**

*All major curriculum changes for the 2005-2006 academic year will be reflected only in the MSI curriculum.*

|   |             |             |    |
|---|-------------|-------------|----|
| Assessing Medical Evidence                    | Spring      | n/a         | 3  |
| Integration and Analysis                      | Fall/Spring | n/a         | 2  |
| Introduction to Clinical Medicine             | Fall/Spring | n/a         | 6  |
| Introduction to Psychiatry                    | Fall/Spring | n/a         | 3  |
| Microbiology                                  | Fall        | n/a         | 9  |
| Pathology                                     | Fall/Spring | n/a         | 14 |
| Pharmacology                                  | Fall/Spring | n/a         | 7  |
| Structure and Function of Major Organ Systems | Spring      | Weeks 23-24 | 9  |
| Host Defense                                  | Spring      | Weeks 35-41 | 9  |

**SECOND YEAR**

|                          |          |
|--------------------------|----------|
| Begins                   | August   |
| Duration                 | 37 weeks |
| Scheduled hours per week | 22 hours |
| Required Courses         | 8        |
| Credit Hours             | 48       |

| Courses | Semester Taken | Weeks Taken | Credit Hours |
|---------|----------------|-------------|--------------|
|---------|----------------|-------------|--------------|

|  |            |                |
|--|------------|----------------|
| <b>Electives (individually approved)</b> | <b>24</b>  | <b>24</b>      |
| Begins                                   |            | July           |
| Duration                                 |            | ?              |
| Scheduled hours per week                 |            | -- Assigned -- |
| Required Clerkships                      |            | 6              |
| Contact Weeks                            |            | ? weeks        |
| Credit Hours                             |            | 72 hours       |
| <b>Required Clerkships</b>               |            |                |
| <b>Internal Medicine</b>                 | <b>12</b>  | <b>18</b>      |
| <b>Surgery:</b>                          | <b>---</b> | <b>18</b>      |
| <b>General Surgery</b>                   | <b>9</b>   | <b>---</b>     |
| <b>Surgical Subspecialties</b>           | <b>2</b>   | <b>---</b>     |
| <b>Anesthesiology</b>                    | <b>1</b>   | <b>---</b>     |
| <b>Pediatrics</b>                        | <b>6</b>   | <b>9</b>       |
| <b>Obstetrics &amp; Gynecology</b>       | <b>6</b>   | <b>9</b>       |
| <b>Psychiatry</b>                        | <b>6</b>   | <b>9</b>       |
| <b>Family Medicine</b>                   | <b>6</b>   | <b>9</b>       |
| <b>FOURTH YEAR</b>                       |            |                |
| Begins                                   |            | July           |
| Duration                                 |            |                |
| Scheduled hours per week                 |            | -- Assigned -- |
| Required Clerkships                      |            |                |
| Electives                                |            | 24             |
| Contact Weeks                            |            |                |
| Credit Hours                             |            | 48             |
| <b>Clerkships</b>                        |            |                |
| <b>Neurology</b>                         | <b>6</b>   | <b>6</b>       |
| <b>Ambulatory Care Selective</b>         | <b>6</b>   | <b>6</b>       |
| <b>Critical Care Selective</b>           | <b>6</b>   | <b>6</b>       |
| <b>Subinternship</b>                     | <b>6</b>   | <b>6</b>       |

## **CONTINUING MEDICAL EDUCATION**

Continuing Medical Education at Texas Tech University Health Sciences Center (TTUHSC) School of Medicine has as its goal the improvement of health care through the presentation of quality educational programs designed to provide opportunities for physicians to enhance their knowledge and skills. TTUHSC's Office of Continuing Medical Education is accredited by the Accreditation Council for Continuing Medical Education (ACCME). TTUHSC has maintained an accredited program of CME since 1977. Programs certified for CME credit assists physicians in meeting requirements for re-licensure in those states with requirements and membership in various specialty organizations. The CME staff collaborates with medical school faculty to plan, develop, and implement workshops, conferences, seminars, and grand rounds on a variety of subjects designed to keep physicians current in their knowledge and skills. CME activities are also delivered to regional campuses and selected rural community hospitals via the HealthNet telecommunications technologies. Using this technology, the School of Medicine is able to provide current information to physicians in rural areas without the expense of travel and lost practice time.

## **School of Medicine Training**

### **Curriculum Vision:**

Graduates of the TTUHSC-SOM will be knowledgeable, competent, and compassionate clinicians who communicate and collaborate with patients and colleagues in a caring and professional fashion.

The curriculum that prepares these graduates will emphasize acquisition and application of medical knowledge, clinical skills, and professional behaviors. Multiple modalities of instruction which promote integration of basic and clinical science information, development of problem solving and clinical reasoning abilities, and development of life-long learning habits will be utilized.

The educators involved in the instruction of these graduates will be role models who reflect and emphasize professionalism in their teaching, science, clinical care of patients, and modes of communication with patients and colleagues.

### **Curriculum Goals:**

The goal of medical education at the Texas Tech University Health Sciences Center School of Medicine is to promote excellence in the clinical, scientific, and humanistic skills of our graduates and to instill the competence and compassion that distinguishes outstanding physicians. Our program is designed to graduate physicians who:

- Provide competent and humane medical care to individuals, families and the larger society based on the scientific and clinical principles of health and its promotion; of disease and its prevention and management; and of psychosocial factors influencing patients well being.
- Demonstrate competence in life-long learning including self-directed study of basic and clinical science, critical assessment of medical literature, and use of evidence-based medicine.
- Demonstrate proficiency in clinical assessment, namely the ability to obtain a patient's history, to perform a comprehensive physical examination, and to assess and treat patients' medical and emotional needs.
- Demonstrate 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.
- Demonstrate sensitivity to the diverse psychosocial and spiritual needs of their patients and communicate clearly, respectfully, and compassionately with their patients, their families and other health care professionals.
- Display the highest standards of professional integrity and exemplary behavior, including compassion, truthfulness, and ethical reasoning.

**Curriculum Objectives:**

The Texas Tech University Health Sciences Center School of Medicine has identified key objectives for our educational program relating to the knowledge, skills, behaviors, and attitudes for students acquiring the degree of Doctor of Medicine. Further, the TTUHSC SOM endorses the competencies in patient care, medical knowledge, practice-based learning and improvement, interpersonal and communication skills, professionalism, and systems-based practice recognized by the

Accreditation Council for Graduate Medical Education. Each course and clerkship 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 to ensure that the vision and goals are met.

A. Knowledge: *The student will demonstrate an exemplary and contemporary fund of knowledge in basic and clinical sciences essential to the practice of medicine, to also include:*

- Scientific method and its application to problem solving in the basic and clinical sciences.
- Analytical tools for data collection, quantitative analysis, critical reading and investigation, and evidence-based medicine, and their application to the clinical care of patients.
- Definition of clinical problems and formulation of differential diagnosis, diagnostic investigation, clinical treatment and management by application of data from the clinical interview and clinical examination.
- Organization of the health care delivery system and the professional, legal, and ethical expectations of physicians.
- Principles of behavioral and social sciences as applied to family systems and their effect on patient health.

B. Skills: *The student will demonstrate excellence in patient care, including the ability to:*

- Communicate effectively, both orally and in writing, with patients and their families, colleagues, and other health care professionals about clinical assessments and findings, diagnostic testing, and therapeutic interventions.
- Conduct comprehensive and problem-specific physical examinations appropriate to the patients' concerns, symptoms, and history.
- Integrate the patient interview and physical examination findings with medical knowledge to identify the clinical problems of patients, formulate differential diagnoses, and develop plans for treatment, diagnostic investigation, and management.

- Utilize varied methods of self-directed learning and information technology to acquire information in the basic and clinical sciences needed for patient care.
- Interpret laboratory results and diagnostic procedures.
- Select and perform basic diagnostic and therapeutic procedures.

C. Behaviors: *The student will model the professional behaviors of a skilled and competent physician, including:*

- Patient care based on evidence, skilled clinical reasoning, and the current state of medical art and science.
- Patient care that is compassionate and empathic, particularly in settings involving pain management, substance abuse, mental health disorders, or terminal illness.
- Sensitivity to the diverse factors affecting patients and their health care beliefs and needs, including age, gender, sexual orientation, religion, culture, income, and ethnicity.
- Demeanor, speech, and appearance consistent with professional and community standards.
- Dedication to the highest ethical standards governing physician-patient relationships, including privacy, confidentiality, and the fiduciary role of the physician and health care systems.

D. Attitudes: *The student's attitude will exemplify the highest ethical standards, including:*

- Respect for each patient's unique needs and background and how they affect the patient's concerns, values, and health care decisions.
- Recognition of the social nature of health care and respect for patients, other health care professionals, and administrative members of the health care systems.
- Commitment to life-long learning as a hallmark of professional excellence throughout a physician's career.

## **SCHOOL OF MEDICINE DEPARTMENTAL LISTING WITH OFFERED COURSES AND CLERKSHIPS**

The basic science departments are housed at Lubbock and each has a single Chair. The Chairs of the clinical departments are located on the Lubbock campus except for Emergency Medicine that is sited in El Paso.

Each regional campus has a Regional Chair for the campus department.

The following pages present thorough descriptions of the various departments and their respective offered courses within the School of Medicine. All courses are listed below. This detailed list includes all required 3<sup>rd</sup> year clerkships, with course numbers, and all 4<sup>th</sup> year elective courses, with course numbers as well.

At the end of the departmental listing, there is a detailed accounting for the 1<sup>st</sup> thru 3<sup>rd</sup> year courses/clerkships.

### **FALL 2005 INTER-DEPARTMENTAL COURSES LISTING FOR MEDICAL STUDENT 1 (MS1)**

#### **EARLY CLINICAL EXPERIENCE.**

**MSCI-5050. (Lubbock)** The purpose of this block, which begins in week 1 and extends throughout years 1 and 2, is to provide the framework for the students to learn the fundamental skills of patient assessment. The students in groups of four are assigned to Master Teachers to learn history taking and physical examination. They will grow accustomed to clinical care, its varied settings, and the operations of the health care team. They will master specific skills and learn the essentials of patient care from these first patient exposures. In Year 2 students will move to actual office settings, continue to engage in self-directed learning, and expand their skills in patient care and working with the health care system.

**Bloc or Course Director:** Tommie Farrell, M.D.

**Other Faculty involved in course:** Anuras, Bickley, Farrell, Griswold, Lnk, Sutkin, Camp, Rogers

**Bloc or Course Objectives:** *By the end of the bloc students should be able to:*

1. Demonstrate effective patient communication skills by obtaining a chief complaint, taking a medication and allergy history, obtaining a history of present illness, recording past medical history, obtaining a family and social history, and obtaining a systems review.
2. The student will learn to use the following interviewing and communication skills – Establishing Rapport, Active Listening, Adaptive and Open-ended Questioning, Non-verbal Communication, Facilitation, Echoing or Restating and Summarization, Empathetic Responses, Validation and Reassurance.
3. Accurately measure vital signs including blood pressure, heart rate, respiratory rate, temperature, and body mass index.
4. Perform a detailed physical examination of major body systems (head, neurological, skin/hair/nails, musculoskeletal exam (range of motion joints, strength & bulk major muscle groups), cardiac, pulmonary, abdominal, and thyroid), including inspection, palpation, percussion, and auscultation, and demonstrate appropriate use of the diagnostic tools necessary to perform the examination.
5. Demonstrate sensitivity and professionalism in discussing sensitive matters with a standardized or real patient (e.g., drug/alcohol use, sexuality, end-of-life issues, domestic violence).
6. Demonstrate use of at least two on-line references to quickly answer clinical questions during an ambulatory patient visit.
7. Explain the organization of the medical record in the outpatient setting, and write a legible, appropriately formatted entry of important clinical data.
8. Write outpatient prescriptions clearly and unambiguously.
9. Explain the different roles of members of the health care team (receptionist, office coder, nurse, and physician) in outpatient care settings.
10. Explain the different roles of various members of multidisciplinary teams (physician, mid-level practitioner, nurse, dietician, physical/occupational/speech therapists, social workers, case managers) in outpatient care settings.
11. Explain the role of the physician in billing and coding in the office.
12. Demonstrate ability in the following procedures: intramuscular and subcutaneous injections.
13. Take a nutritional history and explain the importance of diet choices in certain chronic illnesses.

**Web use:**

WebCT

**Total # of Contact Hours, Percent Lecture, and Percent Other (identify types of teaching formats):**

46 hours; 100% clinic

**Required textbooks:**

*Bates' Guide to Physical Examination and History Taking, 8<sup>th</sup> ed.*

**Grading system components:**

Honors, Pass, Fail

**Points given for online block and course evaluations:**

No

**Date of last Triennial Review:**

New bloc

**FOUNDATIONS OF MEDICAL SCIENCE I.**

**MSCI-5010. (Lubbock)** The Foundation Block 1 curriculum introduces medical students to the knowledge base, skills, behaviors and attitudes necessary to become the knowledgeable, competent, and compassionate clinicians who communicate and collaborate with patients and colleagues in a caring and professional fashion. The curriculum for the Foundations of Medical Science (FMS) component is closely integrated with Medical Gross Anatomy and Early Clinical Experience. Students begin participating in direct patient care during their first week of medical school. This integration will allow opportunities for the students to apply materials learned in FMS and Anatomy components in a direct patient care context; including interviewing patients, physical examination, formulating differential diagnoses and treatment plans. There will be a strong emphasis on professionalism, communication skills, attitudes and medical ethics in the FMS component that will continue through Years 1 and 2. The biopsychosocial model will be utilized in approach to patient care. The Medical Gross Anatomy sessions and experiences were integrated and designed to provide students with fundamental knowledge of anatomical details of the human body, an understanding of how it develops, and an understanding of how different elements interrelate either structurally, functionally, developmentally, or when pathologically altered.

**Bloc Leader:** Vaughan H. Lee, Ph.D.

**Other Faculty involved in course:** Beale, Chilton, Cornwall, Dalley, Ehlo, Floyd, Schneider, Shaw, Vidic, Weitlauf, Baker, Bickley, Chauncy, Farrell, Flood-Shaffer, Hirsch, Jumper, McGovern, Mitchell, Paxton, Peck, Pelley, Prabhu, Schiffer, Sutkin, Warner

Guest Speakers: Aronoff, Chambers, Colon, Cordero, Hirsch, Jumper, Owen, Zumwalt

### **Bloc or Course Objectives:**

#### **Small Group Goals:**

1. Provide a small group environment in which to encourage development of interpersonal relationships between: 1) the student members and 2) between the Facilitators and the students in a mentoring capacity.
2. Integrate the concepts of professionalism, communication, and ethics with the entire Medical School curriculum.
3. Provide a venue for expanded and more detailed understanding of the applications of their developing knowledge base to clinical medicine.
4. Develop skills in evaluation medical literature and presenting findings to peers in a Journal Club format.

#### **Small Group Objectives:**

The objectives for each Small Group session will be specific for the content of that particular session.

At the completion of the Foundations Block 1, the students should be able to:

1. List professional behaviors specific to the practice of medicine.
2. Recognize their own preferences in communication styles and the need for various communication styles by their patients. This knowledge will enable the student to continue to develop skills to improve communication with patients.
3. Recognize the demands on physicians today to be up-to-date on medical literature, evidence-based practices, ethics of medicine, and to be competent in patient care in the realms of the social and psychiatric needs in addition to physical needs. Understanding and using the biopsychosocial model of patient care.
4. Describe the gross anatomy of a given structure or system and explain its relationships with other structures or systems.
5. Recognize and describe the anatomy of a cross-sectional image and correlate that with normal and abnormal anatomy.
6. Demonstrate knowledge of human structure on a cadaver or medical image, through dissection and surveys of medical images.
7. Integrate a diverse set of anatomical facts, images, or descriptions and correlate those with different clinical presentations.

#### **Web use:**

Course description, schedule, objectives, dissector, anatomical imaging

keys and tutorials, dissection videos, STS prelabs.

**Total # of Contact Hours, Percent Lecture, and Percent Other (identify types of teaching formats):**

Total hours = 232

Lecture = 34%

Other (small groups and dissection groups) = 66%

**Special features of bloc content or teaching formats.**

Bloc I consists of concept oriented lectures that cover patient examination skills and basic human structure and function. In addition, there are small group discussions of clinical cases and self-directed dissection in small groups. These sessions are coordinated to help prepare students for patient interactions and exams during their clinical experience.

**Required textbooks:**

Bickley, Lynn S. *Bates' Guide to Physical Examination and History Taking, Eighth Edition.*

Moore. *Clinically Oriented Anatomy, 5<sup>th</sup> Edition.*

Larsen. *Essentials of Human Embryology.*

**Optional:**

Grant, *Grant's Dissector, 13<sup>th</sup> Edition.*

**One of the following is recommended:**

Rohen et al. *Grant's Atlas. 11<sup>th</sup> Edition.*

Netter. *Atlas of Human Anatomy. 3<sup>rd</sup> Edition.*

Rohen et al. *Color Atlas of Anatomy. 5<sup>th</sup> Edition.*

**Grading system components:**

Categorical; Honors, Pass, or Fail.

**Exams returned to students:**

No.

**Points given for online block and course evaluations:**

None.

**Student Liaison Committee (yes/no):**

No.

**Date of last Triennial Review:**

n/a

## **FOUNDATION OF MEDICAL SCIENCE II**

**MSCI-5020. (Lubbock)** Foundations II is designed to provide students with fundamental information concerning the traditional areas of biochemistry, genetics, histology and physiology. The principles presented in this course will proceed from molecules to cells and then to tissues integrating structure and function. At the end of the bloc the students will have gained a foundation requisite for the study of the organ systems offered in the following bloc.

**Bloc Leader:** James Hutson, Ph.D.

### **Other Faculty involved in course:**

Escobar, Dalley, Ehlo, Faust, Hutson, Little, Pelley, Pence, Pfarr, Schneider, Pressley, Shen, Tonk, Urbatsch, Webster, Weitlauf, Whelley, Williams

### **Web use:**

**WebCT** will be used for student access to notes and laboratory materials and grades.

### **Total # of Contact Hours, Percent Lecture, and Percent Other (identify types of teaching formats):**

Total contact hours (including exams): 125

Lecture = 54%

Other (small group discussions, histology laboratories, journal clubs and grand rounds) = 46%

### **Special features of bloc content or teaching formats:**

We will use tutorial sessions during the biochemistry and genetics portion of the bloc where team learning and discussions groups will take place. In the histology laboratory, students will study in unique small group settings. There are 8 video-scopes in the laboratory where groups of 8-10 students study together using under the guidance of faculty who roam the laboratory. The students are encouraged to use self-directed methods as they follow the laboratory guide within their groups.

### **Required textbooks:**

Gartner, Hiatt. *Color Textbook of Histology. 2<sup>nd</sup> Edition.*

Meisenberg & Simmons. *Principles of Medical Biochemistry.*

*Stedman's Medical Dictionary, 27th ed.*

Bickley, Lynn. *Bates' Guide to Physical Examination and History*

*Taking. 8<sup>th</sup> Edition.*

Kumar, V., Abbas, A.K., Fausto, N., *Robbins & Cotran Pathologic Basis of Disease.*

Nussbaum, R., McInnes, R., Willard, H., *Thompson & Thompson Genetics in Medicine, 6<sup>th</sup> ed.*

**Recommended:**

Young & Hiese. *Wheater's Functional Histology. 4<sup>th</sup> Edition.*

Pelly, J.W., Goljan. *Biochemistry: Mosby's Rapid Review Series.*

**Grading system components:**

There will be an exam at the end of the biochemistry section, after the histology section and after the genetics section. There will be a final exam at the end of the course integrating all sections.

**Exams returned to students:**

To be determined by EOC.

**Points given for online block and course evaluations:**

To be determined by EOC.

**Student Liaison Committee (yes/no):**

To be determined by EOC.

**Date of last Triennial Review:**

New block, n/a.

**HOST DEFENSE**

**MSCI-5050. (Lubbock)** The goal of this course is to: Provide first year medical students with sufficient knowledge for them to understand the development of the immune system and immunity and the roles of the immune system in defense against disease and in diseases caused by inappropriate immune responses; Provide first year medical students with sufficient knowledge for them to understand the breadth of medical microbiology and the roles of specific microbes in infectious disease and as part of the human flora; Provide first year medical students with sufficient knowledge in immunology, molecular biology, bacteriology, bacterial physiology, mycology, parasitology, and virology to meet their obligations in years 2, 3, and 4 of medical school; Provide first year medical students with sufficient knowledge in immunology and microbiology to pass cumulative examinations and to build a knowledge base toward the USMLE Step 1 exam; Provide first

year medical students with sufficient knowledge in immunology and microbiology to become competent in future medical practice; Provide first year medical students with sufficient information in immunology and microbiology so that they can learn new information in these disciplines as it becomes available during their careers.

**Bloc Leader:** Jane Colmer-Hamood, Ph.D.

**Other Faculty involved in Bloc or Course:** Amonett, Bright, Chaffin, Chiriva-Internati, Daugherty, Fralick, Hamood, Hutson, Kennedy, Lampe, Nairn, Peck, Pence, Reilly, Rolfe, Shearer, Straus, Waagner, Way, Wilson

**Bloc or Course Objectives:**

**Web use:**

Web CT.

**Total # of Contact Hours, Percent Lecture, and Percent Other (identify types of teaching formats):**

150 contact hours

Lecture = 65.3%

Other (team learning [patient-oriented problem solving], small groups, case studies, clinical correlations, and laboratory-based exercises, and possibly other such as web-based learning) = 34.7%

**Special features of bloc content or teaching formats.**

Content is divided into three units:

Unit 1—The Immune System

Unit 2—Parasitology, Mycology, Bacteriology

Unit 3—Bacteriology and Virology

Each Unit includes a “Foundations of Medical Practice” component for integration of basic science with clinical practice. Guest lecturers provide additional clinical correlations for specific microbes. Patient-oriented problem solving sessions and wet laboratory sessions.

**Required textbooks:**

Murray, P., Pfaller, M., and Tenover, K. *Medical Microbiology, 5th Edition*

Nairn, R. and Helbert, M. *Immunology for Medical Students, Updated Edition*

Rosen, F. and Geha, R. *Case Studies in Immunology: A Clinical Companion, 4th Ed.*

**Grading system components:**

Three unit examinations.

Patient-Oriented Problem Solving sessions and laboratory assignments.

Attendance, participation, and assignments in Foundations of Medical Practice component.

Cumulative final exam covering all three units.

**Exams returned to students:**

No.

**Points given for online block and course evaluations:**

No.

**Student Liaison Committee (yes/no):**

No.

**Date of last Triennial Review:**

Fall 2005.

**STRUCTURE AND FUNCTION OF MAJOR ORGAN SYSTEMS**

**MSCI-5030. (Lubbock)** Structure and Function of Major Organ Systems provides a basic understanding of the tissues and organs of the body, as well as their functions and interrelationships. Course material is drawn from the traditional disciplines of biochemistry, histology, physiology, and nutrition to address the basis of human health from the molecular level to clinical applications. The various organ systems of the body will be covered through a series of lectures, laboratories, and small group conferences. They include cardiovascular, respiratory, renal, gastrointestinal, and endocrine systems, with an emphasis on an integrative approach to their study. Key to this is the ability to address complex problems in a logical, systematic fashion. Although mastery of this material will involve the memorization of basic facts, it will also require an appreciation for the scientific findings that support those facts and the gaps in our present knowledge that remain. Moreover, students will acquire the necessary skills to evaluate critically new knowledge and ideas as they are developed.

Graduate students, postdoctoral fellows, and residents often participate in small-group conferences, computer simulation workshops, and laboratories. They are required to attend planning conferences in which the objectives are discussed explicitly.

**Bloc Leader:** Thomas A. Pressley Ph.D., 14 credit hours

**Other Faculty involved in course:** Chauncey, Chilton, Coates, Davies, Escobar, Fowler, Freeman, Hutson, Janssen, Cindy Jumper, Gwynne Little, Lutherer, Nathan, Norman, Nugent, O'Banion, Orem, Pelley, Pence, Prien, Shen, Varma, Wesson

**Web use:**

Curricular objectives and handouts are distributed online using WebCT software.

**Total # of Contact Hours, Percent Lecture, and Percent Other (identify types of teaching formats):**

~165 hours

Lecture = ~60%

Small group conferences = 30%

laboratories and computer simulations = 10%

**Special features of bloc content or teaching formats.**

Integrated presentation of basic sciences as they pertain to the organ systems

**Required textbooks:**

Lisa Hark, and Gail Morrison. *Medical Nutrition & Disease: A case-based approach.*

Robert M. Berne and Matthew N. Levy. *Cardiovascular Physiology.*

Bruce M. Koeppen and Bruce A. Stanton. *Renal Physiology.*

Leonard R. Johnson. *Gastrointestinal Physiology.*

Susan P. Porterfield. *Endocrine Physiology.,*

John B. West. *Respiratory Physiology, The Essentials.*

Leslie D. Garner and James L. Hiatt. *Color Textbook of Histology.*

**Grading system components:**

Five unit examinations and a final cumulative examination.

**Exams returned to students:**

To be determined by the EOC.

**Points given for online block and course evaluations:**

No.

**Student Liaison Committee (yes/no):**

To be determined by the EOC.

**Date of last Triennial Review:**

New course, n/a.

**YEAR 2 COURSES****ASSESSING MEDICAL EVIDENCE**

**Course Director:** Ronald D. Warner, D.V.M. Ph.D., 3 credit hours

**Other Faculty involved in course:**

Baker, Bennett, Chauncey, Cook, Colmer-Hamood, Frame, Mitchell, Prabhu, Ragain, Ward, Way, Xu

**Goal:**

Have students interpret information from several contemporary medical journal articles, to be able to apply the best objective evidence to patient treatment and community health interventions.

**Learning objectives:**

Each session has its own learning objectives. Some of the *most important* are:

**Recognize** the basic assumptions that guide epidemiologic inquiry.

**Describe** disease/injury by: age, race, gender, occupational, socioeconomic variables, and treatment/clinical outcomes.

**Describe** the indicators of population natality, health, disease, & mortality that are compiled by local and state health departments, & sources of these data.

**Identify** differences between crude and standardized/adjusted morbidity and mortality rates, and **explain** why crude rates should be adjusted. **Recognize and use** epidemiologic (disease impact) measures.

**Describe & list examples** of interventions available for prevention & treatment.

**Define** primary, secondary, and tertiary prevention.

**Explain** the relationship of population/sample size, prevalence of factor, power of study design, level of significance, and confidence intervals Re: hypothesis tests.

**Define** the following terms sufficiently that, given the results of a study, you feel confident to **calculate**: a.) Sensitivity and/or specificity of a diagnostic or screening test; b.) Positive and/or negative predictive values of such tests; c.) Prevalence of the disease/condition in the study population. **Describe** the design, logistics, conduct of case-control studies; **cite** advantages or disadvantages and relative

strengths of such studies. **Explain** the difference between the terms “retrospective” and “prospective”, as applied to observational studies.

**Recognize** how the concepts of validity and precision impact the results and conclusions of epidemiologic studies:

**Describe** cohort studies and randomized controlled clinical trials; **cite** advantages/disadvantages and relative strengths of such studies.

**Define** “randomization”, “blinding”, observer bias, and placebo effect.

**Recognize** the principles used to practice evidence-based medicine.

**Demonstrate** influence of study design, bias, statistical power, and confidence intervals on practice decisions; using illustrations from the medical literature. Be able to **recognize**: levels of Clinical Practice Guideline development and types of evidence needed for Clinical Practice Guideline development.

**Interpret** the information from a recent article about: risk factors for CHD, various treatments, and/or how this evidence influences clinical practice. **Explain** how clinical outcomes (length-of-stay, quality-of-life, 5-year survival, etc.) are measured & interpreted.

**Describe** how norms (standards), specific outcome measures (false + / false - test results), and available methods are employed to improve the quality of that specific outcome.

**Define** the 5 domains of complementary & alternative medicine (CAM).

**List** at least five factors that can promote the emergence or re-emergence of human pathogens.

**Recognize** the threat(s) posed by bioterrorism and international travel. **Explain** the basis for “priority classification” of potential bioterrorism agents. **Assign** correct preventive interventions for some of the bioterrorism agents. **Identify** some of the correct preventive interventions for international travel.

### **Web use:**

Currently, TTUHSC Library e-reserve ‘course pg’ for access to medical literature/journal articles and small-group exercise materials.

### **Contact Hours:**

Total = 24

Lecture = 80%

In-class critique of journal articles = 10%

Team-learning = 10%

Plus 4 hrs of self-directed (non-contact hrs) learning: topics in population medicine/public health.

*In addition*, there are 6 hand-in exercises: direct adjustment of crude rates, asthma investigation, and (4) critiques of medical journal articles.

**Required Text:**

Greenberg, Daniels, et al. *Medical Epidemiology*. 3<sup>rd</sup> ed.

**Grading system components:**

Three block exams = 85%

On hand-in exercises, in-class participation, & self-directed learning = 15%

**Attendance mandatory (effect on grade):**

Not mandatory.

**Exams returned to students:**

No.

**Points given for online block and course evaluations:**

One point.

**INTEGRATION & ANALYSIS**

**Course Director:** Kathryn McMahon Ph.D., 2 credit hours

**Other Faculty involved in course:** Faculty involved in the 2004-05 year Bickley, Colmer-Hamood, Freeman, Prabhu, Rolfe, Baker, O'Banion, Chauncey, Lombardini, Kennedy, Tenner, Jenkins, Graham, Jumper, Stanley, Popp, Warner, Dickerson, D. Buscemi

**Bloc or Course Objectives:**

The student will be able to:

1. Integrate materials from concurrent course work to evaluate experimental or clinical case scenarios.
2. Use basic science and clinical science knowledge to interpret clinical scenarios.
3. Work in team formats for development of logical clinical decision-making.
4. Present in written and oral form clinically logical arguments for team decisions.
5. Use self-directed learning to investigate basic science and clinical information.

**Web use:**

Web CT.

**Total # of Contact Hours, Percent Lecture, and Percent Other (identify types of teaching formats):**

36 hours (12 sessions of 2-3 hours)

Lecture = 0%

Team learning format = 100%

**Blocs and Courses: For Blocs, special features of bloc content or teaching formats; for Courses, changes in course content or teaching formats 2005-2006.**

This course will generally have the same content and teaching format as in the last academic year. We will introduce some changes that are hoped to enhance the course including more use of WebCT in the session itself. Students will be expected to bring their laptop computer to the session.

**Required textbooks:**

No required text, reading assignments will come from within the concurrent coursework being done.

**Grading system components:**

Readiness Assurance tests, group application answers, peer evaluation and attendance.

**Exams returned to students:**

No.

**Points given for online block and course evaluations:**

No.

**Student Liaison Committee (yes/no):**

Yes.

**Date of last Triennial Review:**

Not yet reviewed.

**INTRODUCTION TO CLINICAL MEDICINE**

**Course Director:** Dolores Buscemi, M.D., 6 credit hours

**Other Departments / Faculty involved in course:**

Dept. of Internal Medicine

Dept. of Dermatology

Dept. OB/Gyn

Dept. Ophthalmology

**Bloc or Course Objectives:**

1. Describe a general approach to the differential diagnosis of a patient complaint/syndrome.
2. Describe the common clinical presentation of common medical problems.
3. Link the pathophysiology of these conditions to the associated symptoms and signs.
4. Describe the use of history, laboratory, radiology or other tests in the diagnosis.

**Web use:**

Web CT for course notes/grades.

**Total # of Contact Hours, Percent Lecture, and Percent Other (identify types of teaching formats):**

**65 hours**

Lecture = 90%

Team Learning = 6%

**Changes in course content or teaching formats 2005-2006:**

Speakers and content to be revised.

**Required textbooks:**

*Cecil's Essentials of Medicine.*

*Principles of Dermatology.*

**Grading system components:**

Multiple Choice exams; points for Team Learning Sessions

**Exams returned to students:**

No.

**Points given for online block and course evaluations:**

0.5 per semester.

**Student Liaison Committee (yes/no):**

No.

**Date of last Triennial Review:**

May 2004.

**INTRODUCTION TO NEUROPSYCHIATRY**

**Course Director:** Parviz Malek-Ahmadi, M.D., 3 credit hours

**Goals:** The principal goal of this bloc is to provide students with fundamental knowledge about neuropsychiatric disorders.

**Objectives:** Identification of signs and symptoms of neuropsychiatric disorder and contribution of biological, psychological and psychosocial factors to the pathogenesis of neuropsychiatric disorders.

## **I. TEACHING SESSIONS**

1. Clinical Examination of the Psychiatric Patient, Psychiatric Report, Medical Assessment of the Psychiatric Patient, Signs and Symptoms in Psychiatry, Classification in Psychiatry and Psychiatric Rating Scales Chapters 1, 2, 3, 5 & 6.
2. Mood Disorders: Chapter 12, Live patient.
3. Anxiety Disorders: Chapter 13.
4. Schizophrenia and other Psychotic Disorders: Chapter 10 & 11, Live patient.
5. Somatoform and Pain Disorders: Chapter 14.

MID-BLOCK EXAM (tentative)

6. Substance-Related Disorders: Chapter 9, Live patient.
7. Delirium, Dementia, and Amnesic and Other: Cognitive Disorders and Mental Disorders Due to a General Medical Condition, Chapter 7.
8. Attention-Deficit and Disruptive Behavior Disorders, Chapters 39 & 40, Live patient.
9. Personality Disorders, Chapter 16.
10. Neurobehavioral Aspects of Neurologic Disorders.

## **II. Write-ups:**

The students are required to complete two write-ups of live patient interviews. A sample of write-up is available on the course website or obtained from the Course Coordinator. When completed, the write-ups must be turned in (oremailed) to the Course Director.

## **III. Small Group Discussion:**

Following each lecture the students (1-12) are required to participate in discussion of a case vignette provided by the Small Group Leader.

## **Required textbook:**

*Kaplan & Sadock's Concise Textbook of Clinical Psychiatry Second Edition.*

**Final Exam** (two hours):

The final exam consists of USMLE type questions based on the contents of the textbook chapters and hand-outs.

**Grading:**

Exams 70%

Write-ups 20%

Small group participation 10%, ½ point, a total of 1.5 for block evaluation

**MEDICAL MICROBIOLOGY**

**Course Director:** David C. Straus Ph.D., 9 credit hours

**Other Faculty involved in course:** Kennedy, Bright, Chiriva-Internati, Chaffin, Colmer- Hamood, Fralick, Hamood, Nairn, D. Pence, Reilly, Rolfe, Shearer, and Wilson.

**Bloc or Course Objectives:**

1. Provide second year medical students with sufficient knowledge in immunology, parasitology, molecular biology, bacteriology, bacterial physiology, mycology and virology to meet their obligations in years 3 and 4 of medical school.
2. Provide second year medical students with sufficient knowledge to successfully pass step 1 of the NBME in microbiology and immunology
3. Provide second year medical students with sufficient knowledge in the above listed areas of microbiology to become competent in future medical practice.
4. Provide second year medical students with sufficient information in microbiology and immunology so that they can learn the new information in these disciplines as it becomes available during their careers.

**Web use:**

"Bugs" Index –Organisms URL:

<http://medinfo.ufl.edu/year2/mmid/bms5300/bugs/>

Microbiology cases URL :

<http://medinfo.ufl.edu/year2/mmid/bms5300/cases/index.html>

WebCT

**Total # of Contact Hours, Percent Lecture, and Percent Other (identify types of teaching formats):**

**153 total contact hours**

Lecture = 82.5 %

Percent Other (identify types of teaching formats):

Tests = 7.8%

POPS = 3.2%

Review = 1.2%

Lab = 5.3%

**Changes in course content or teaching formats 2005-2006:**

None.

**Required textbooks:**

None.

**Grading system components:**

Honors, high pass, pass, low pass, fail.

**Exams returned to students:**

No.

**Points given for online block and course evaluations:**

Yes.

**Student Liaison Committee (yes/no):**

No.

**Date of last Triennial Review:**

2005.

**MEDICAL PATHOLOGY**

**Course Director:** Suzanne Graham, M.D., 14 credit hours

**Other Faculty involved in course:** Bradley, Dunn, Mamlok, Miller, Oliver, B. Pence, D. Pence, Shen, Tran, Wachtel, Tonk, Larsen, Guest speakers

**Course Objectives:**

The **OVERALL OBJECTIVES** include (but will not be limited by):

- The study of the mechanisms necessary for the **maintenance of the normal human**, including nutrition, normal mechanisms of response to injury and repair, and basic genetics. This includes a selected review of anatomy, physiology, biochemistry, and other

first year subjects, and requires that the student independently review these subjects as needed.

- The consideration of the **major mechanisms of injury** (trauma, ischemia, necrosis, infection, autoimmune disease, environmental exposures, selected genetic diseases, oncogenesis, for example) **as they apply to major organ systems**, as well as their relative importance in those organ systems.
- The description of the **gross and microscopic correlates** of the mechanisms of injury, especially **as they relate to clinical laboratory changes and classic clinical symptoms**.
- The **application** of the principles of normality, response to injury, mechanisms of injury, and expression of clinical disease **in the evaluation of selected clinical situations**, especially **in coordination with other Second Year Courses**.
- **The consideration of special clinical groups** that may respond differently to injury, or whose disease character or incidence differ significantly from the epidemiologic norm, by virtue of age (pediatric and geriatric groups), sex, regional or ethnic group.

**Web use:** WebCT will be the main source for course material this year, including all lectures and labs. Referral to other sources (i.e. WebPath) will be offered, but are optional.

**Total # of Contact Hours:**

Roughly 190 teaching hours.

Lecture class time = 73%

In-class CPCs = 14%

(case based interactive sessions; student interactive presentations based on autopsies, research, community projects, etc.)

Laboratory = 14%

(small gross specimen examination groups/split or whole class interactive cases.)

**Changes in course content or teaching formats 2005-2006:**

Voluntary extra credit projects (up to 4 points on final grade) based on a variety of student designed and originated projects, including: participation in an autopsy; community and school service projects; research, including participation in Research Day; teaching projects on undergraduate campus, or in local schools. No others at this time.

**Required textbooks:**

Kumar V, Abbas A and Fausto N. *"BIG Robbins" 7<sup>th</sup> edition of Robbins and Cotran Pathologic Basis of Disease. 2004.* ISBN 0-7216-0187-1.

**Grading system components:**

EXAMS (85% BLOCK EXAMS, 15% NBME FINAL EXAM) + ADDED EXPERIENCE (0-4 PTS) + (1 POINT FOR ALL 6 EVALUATIONS (If agreed upon by other classes)

**Exams returned to students:**

No. However, review sessions geared to going over exam questions scheduled as soon as possible after each exam.

**Points given for online block and course evaluations:**

1 point total for participating in all 6 evaluations.

**Student Liaison Committee (yes/no):**

No; but exam questions vetted at review and appropriate regarding done.

**Date of last Triennial Review:** May 2004.

**MEDICAL PHARMACOLOGY**

**Course Director:** J. Barry Lombardini Ph.D., 6 credit hours

**Other Faculty involved in course:**

Freeman, McMahon, Roghani, Syapin, Blanton, Tenner, Popp, Dickerson

**Bloc or Course Objectives:**

The role of the Medical Pharmacology course in the overall curriculum is to ensure that the medical student: 1) has a sufficient understanding of the pharmacological basis of therapeutics in order to perform adequately in its application during the clinical years; 2) is able to select and administer drugs in medical practice with sufficient understanding of their mechanisms of actions, potential hazards, possible interactions with other drugs, and with an awareness of the many factors such as age, sex, and disease which can modify the effectiveness or increase the toxicity of therapeutic agents.

**Web use:**

None.

**Total # of Contact Hours, Percent Lecture, and Percent Other (identify types of teaching formats):**

Total Contact Hours (not counting examinations) = 100 hours

Didactic Lectures = 82 hours (82%)  
Team learning = 4 hours (4%)  
Clinical Conferences = 6 hours (6%)  
Small Groups = 8 hours (8%)

**Changes in course content or teaching formats 2005-2006:**

No Changes.

**Required textbooks:**

None.

**Grading system components:**

6 unit examinations = 75% of final grade  
National Board Final = 25% of final grade

**Exams returned to students:**

No.

**Points given for online block and course evaluations:**

1 point.

**Student Liaison Committee (yes/no):**

No.

**Date of last Triennial Review:**

Unknown.

**SKILLS FOR PATIENT ASSESSMENT**

**Course Director:** Fiona Prabhu, M.D.; 4 credit hours

**Other Faculty involved in course:**

Bickley, Faculty in Family Medicine and Internal Medicine

**Bloc or Course Objectives:**

- Obtain and document a complete history for adult patients.
- Perform and document a complete physical examination for adult patients.
- Identify common medical problems using history and physical examination skills only.
- Construct a comprehensive 'write-up' that includes a detailed History of Present Illness; use of appropriate descriptive terms for

physical findings; and a problem list that reflects an awareness of differential diagnosis.

- Demonstrate professionalism in patient-patient and student-student interactions.
- Demonstrate skill in delivering a succinct 5-minute oral presentation over past patient interviews.

**Web use:**

**Total # of Contact Hours, Percent Lecture, and Percent Other (identify types of teaching formats):**

60 hrs

Lecture = 40%

Workshop = 60%

**Changes in course content or teaching formats 2005-2006:**

No changes compared to previous year.

**Required textbooks:**

*Bates' Guide to Physical Examination and History Taking, 8<sup>th</sup> Edition.*

*How to be a Truly Excellent Junior Medical Student, 6<sup>th</sup> Edition.*

**Recommended textbooks:**

*Bates' Pocket Guide to Physical Examination and History Taking, 4<sup>th</sup> Edition.*

Case Studies to Accompany Bates' Guide to Physical Examination and History Taking (used in the second semester).

**Grading system components:**

**Fall Semester = 50%**

Quizzes = 15%

Fall Semester Exam = 5%

Observed Physical Exam to Date = 5%

Physical Exam OSCE = 10%

Observed Complete Physical = 10%

Attendance/Completion of Workshops = 5%

**Spring Semester = 50%**

NBME, Physical Diagnosis = 10%

Standardized Patient OSCE = 15%

Hospitalized Patient Encounter: Write-ups & Verbal Presentation = 20%

Attendance at Hospital Patient Encounters and at specialty workshops = 5%

**Exams returned to students:**

No.

**Points given for online block and course evaluations:**

Yes.

**Student Liaison Committee (yes/no):**

No.

**Date of last Triennial Review:**

February 9, 2005.

## **YEAR 3 CLERKSHIPS**

### **FAMILY MEDICINE**

**Clerkship Directors:** Frank Hromas, M.D. – Amarillo; Kathryn Horn, M.D. – El Paso, Tommie Farrell, M.D. and Fiona Prabhu, M.D. – Lubbock

**Other Faculty involved in Clerkship:** All family medicine faculty in Amarillo/El Paso/Lubbock

### **Clerkship Objectives:**

#### **ASSESS THE PATIENT IN THE AMBULATORY SETTING**

- a. Demonstrate effective verbal, non-verbal, and written communication with the patient and family.
- b. Elicit a pertinent history.
- c. Demonstrate the ability to perform a pertinent physical exam.
- d. Demonstrate the ability to communicate effectively with other members of the health care team.
- e. Demonstrate the ability to generate a problem list and appropriate assessment of the problem.

#### **ASSESS THE PATIENT IN THE HOSPITAL SETTING**

- a. Demonstrate the ability to obtain a complete history, including past medical, psycho-social, family history, and complete review of systems.
- b. Demonstrate the ability to perform a complete physical examination.
- c. Demonstrate the ability to communicate effectively with other members of the health care team.

- d. Appreciate the interaction between family medicine and the health care system (consultants, nursing, allied health professionals, social services).
- e. Demonstrate the ability to take care of the patient on a daily basis in the hospital setting.
- f. Demonstrate the ability to deliver a concise and pertinent verbal presentation of the patient's daily care.

**APPRECIATE THE CARE OF THE PATIENT ACROSS THE CONTINUUM OF THE LIFE CYCLE**

- a. Demonstrate the ability to educate the patient about disease prevention.
- b. Understand appropriate health maintenance recommendations by age, sex, and risk.
- c. Develop an awareness of psycho-social factors that have an impact on wellness and illness of both the patient and their family.
- d. Demonstrate respect for all cultures, genders, and ethnicities.

**UNDERSTAND COMMON DISEASES SEEN BY FAMILY MEDICINE PHYSICIANS**

- a. Correctly diagnoses diseases commonly seen in the family medicine setting.
- b. Develop a logical management plan for patient care, based on evidence-based medicine.

**Changes in clerkship content, learning experiences, or teaching formats planned for 2005-2006:**

None.

**Grading system components:**

Clinical = 50%

Departmental Exam = 30%

Case Conference = 20%

**Required Textbooks:**

*Sloane's Essentials of Family Medicine. 4<sup>th</sup> Edition.*

**INTERNAL MEDICINE**

**Clerkship Directors:** Rush Pierce, M.D. and Robert S. Urban, M.D., - Amarillo; Harry Davis, M.D. – El Paso; Robert Neilson, M.D. – Lubbock

**Other Faculty involved in Clerkship:**

All.

**Clerkship Objectives:**

Given a set of diagnostic categories for Internal Medicine disease processes, the opportunity to evaluate a minimum of one real or simulated patient from each of these disease categories with completion of a comprehensive history, physical examination, assessment, and treatment plan, and core classes that complement these experiences with patient simulations and/or patient based discussions, students will be able to:

**KNOWLEDGE**

Describe and define:

- The basic disease processes commonly seen in Internal Medicine patients as included in the following diagnostic groups: cardiovascular, respiratory, renal, infectious diseases, gastrointestinal, endocrine, rheumatology, hematology/oncology, neurology, general medicine (see Master Data Collection Key).
- The pathophysiology, diagnosis, and treatment of these diseases.
- Bioethics of care to include informed consent and advance directives.

**SKILLS**

Demonstrate the ability to:

- Perform and accurately record a complete history and physical examination.
- Communicate effectively with both colleagues and patients to include discussing with the patient (and family as appropriate) ongoing health care needs, using appropriate language and avoiding jargon and medical terminology.
- Construct a problem list with an appropriate differential diagnosis for each diagnostic problem using the data collected in the history and physical examination.
- Maintain adequate written records on the progression of illnesses of each patient to whom they are assigned.
- Correctly perform basic clinical procedures such as venipuncture, blood culture, arterial blood gas, electrocardiogram, nasogastric intubation, urethral catheterization, peripheral intravenous catheter insertion, and digital rectal examination.

**ATTITUDES**

Demonstrate professional attitudes in their approach to the care of patients by:

- Use of a non-judgmental and patient-centered manner, showing concern for the patient and the patient's family, and assuming responsibility for the care of the patient in keeping with their level of experience and training.
- Ongoing efforts to improve clinical knowledge and skills through effective use of available learning resources and life-long self-directed learning.

**Changes in clerkship content, learning experiences, or teaching formats planned for 2005-2006:** Didactic sessions have been reorganized and many lectures have been replaced with computer-based seminars on evidence-based medicine, patient problem-based seminars, bedside demonstration of physical examination skills, and x-ray and EKG interpretation sessions. During the clerkship faculty physicians directly observe student interviewing and examination skills and provide feed-back. The Department plans to initiate an observed standardized clinical examination (OSCE) as part of the evaluation process during the 2005 - 2006 academic year.

## **NEUROPSYCHIATRY**

**Clerkship Directors:** Ron Owens, Ph.D. – Amarillo; Salvador Aguirre, M.D. – El Paso; Kathleen Stanley, M.D. – Lubbock

**Other Faculty involved in Clerkship:** All.

### **Clerkship Objectives:**

1. Adequately performs a psychiatric interview and evaluation.
2. Adequately performs the mental status examination and MMSE.
3. Recognizes common psychiatric syndromes.
4. Applies biopsychosocial principles to psychiatric diagnosis and treatment.
5. Demonstrates familiarity with tests and procedures that facilitate diagnosis and treatment of psychiatric patients.
6. Relates to patients in a psychotherapeutic manner.
7. Summarizes the indications, basic mechanisms of action, common side effects, and drug interactions of each class of psychotropic medications and demonstrates ability to select and use these agents to treat patients with psychiatric disorders.
8. Demonstrates understanding of the indications for and principles of psychosocial therapies sufficient to provide explanations to patients in order to make a referral when indicated.
9. Discusses the advantages and limitations of using a diagnostic system like DSM-IV and uses the five axes of DSM-IV in

evaluating patients.

**Changes in clerkship content, learning experiences, or teaching formats planned for 2005-2006:**

Instead of the oral exam with a live patient, each student will undergo two psychiatric OSCE's with standardized patients.

We are conducting a research project comparing outcomes of the traditional six week clerkship, which is primarily inpatient experiences, to those of 12 student volunteers in a year long ambulatory experience.

**Grading system components:**

Clinical Grade = 60%

OSCE's = 20%

NBME shelf exam = 20%

**Required Textbooks:**

*Diagnostic and Statistical Manual IV (DSM-IV).*

Hale and Yudofsky. *Essentials of Clinical Psychiatry. 2004.*

**OBSTETRICS & GYNECOLOGY**

**Clerkship Directors:** Ronald Hodges, M.D. – Amarillo; Christopher J. Powers, M.D. – El Paso; Carol Felton, M.D. – Lubbock

**Other Faculty involved in Clerkship:** All departmental faculty

**Clerkship Objectives:**

1. To introduce the 3<sup>rd</sup> year medical student to the science and art of obstetrics and gynecology.
2. To acquaint the student with the female patient (her unique anatomy, physiology, psychosocial make-up, health and illness issues).
3. To initiate training in procedural skills, in treatment modalities and in preventive medicine that encompasses all aspects of medical care.

**Changes in clerkship content, learning experiences, or teaching formats planned for 2005-2006:**

1. Five weekly feedback evaluation forms in three categories: (Above expectations, Meeting expectations, Below expectations) to be turned in no later than Monday of each week.

2. Workbook has been modified and SOAP format used throughout.
3. Log Sheets: Patient targets are minimal and students are required to meet targets. Level of involvement is to be recorded (P) performed, (A) assisted, (O) observed, or (S) simulated patient.
4. Student lectures will be viewed on DVDs.
5. Sonography clinic has been added for training experiences.

**Grading system components:**

Clinical Performance

(clinical evaluations by faculty and residents) = 30%

Charting/Notebooks (neatness, content, legible) = 20%

Clinical Skills (OSCE's) = 10%

NBME = 30%

Department Project (1 case presentation) = 10%

**+1 bonus point for completion of online evaluation**

**Required Textbooks:**

Beckmann et. al., *Obstetrics and Gynecology*.

Toy, et. al. *Case Files: Obstetrics & Gynecology*.

**PEDIATRICS**

**Clerkship Director:** Gene Luckstead, M.D. – Amarillo; Marie-Martine Logvinoff, M.D. – El Paso; Robby Scott, M.D. – Lubbock

**Other Faculty involved in Clerkship:**

All.

**Clerkship Objectives:**

**1. Pediatric history taking and physical examination, including**

- a. Appropriate communication skills with children and caregivers, as well as, colleagues on rounds and during formal presentations.
- b. Appropriate professional behavior.
- c. Tolerance of parent and family differences in attitudes, behavior, and lifestyle.

**2. Clinical problem solving skills, including**

- a. Appropriate interpretation of history and physical exam findings.
- b. Development of an age appropriate differential diagnosis.

- c. Development of an appropriate diagnostic, treatment, and patient education plan.
- 3. Basic understanding of growth and development (physical, physiologic, and psychosocial) and of its clinical application from birth through adolescence, including**
- a. Ability to fill out and interpret growth charts.
  - b. Ability to perform and interpret the Denver Developmental Screen.
  - c. Ability to conduct an interview with an adolescent.
- 4. Basic understanding of health promotion and disease and injury prevention, including**
- a. Well-child care.
  - b. Immunizations.
  - c. Causes and prevention of child abuse.
  - d. Nutrition.
  - e. Accidents.
- 5. Working knowledge of common pediatric problems**  
Section 10 of the General Pediatric Clerkship Curriculum (GPCC – Appendix 1) provides learning objectives and summary tables of common pediatric problems organized by presenting symptoms and signs.
- 6. Self-directed learning, including**
- a. Independent reading.
  - b. Ability to do literature searches.
  - c. Interpretation of the literature.

**Changes in clerkship content, learning experiences, or teaching formats planned for 2005-2006:**

None.

**Grading system components:**

Clinical Evaluations = 40%

Admission Notes = 10%

Review Examinations = 15%

NBME = 35%

**Required Textbooks:**

Bernstein and Shelov - *Pediatrics for Medical Students.*

*The Harriet Lane Handbook.*

*Pediatric Clerkship Course Syllabus.*

## **SURGERY**

**Clerkship Directors:** Dan A. Galvan M.D. – Amarillo; Susan F. McLean M.D. – El Paso; H. Colleen Silva M.D. and W. Todd Bohannon M.D. – Lubbock

### **Other Faculty Involved in Clerkship:**

#### **Amarillo:**

Dove, Arredondo, Franklin, Rodriguez, Hale

#### **El Paso:**

Tyroch, Dougherty, Hashimoto, Carillo, Miller, Miller, Rhodes, Saltzstein

Subspecialty faculty: Malyszek

#### **Lubbock:**

Griswold, Banister, Blewett, Cordero, deRiese, Frezza, Halldorsson, Helfrich, Mittemeyer, Santana, Sedler, Silva, Spoden, Van Buren

### **Clerkship Goals and Objectives:**

1. To ensure an understanding of the pathophysiology of surgical disease and injury.
2. To instruct the student in the diagnosis and the management of surgical disease and the role of surgery in health care.
3. To train the student in those manipulative skills required in the pre- and post-operative management of surgical patients.
4. To aid the student in the development of judgment necessary for the proper and sympathetic care of surgical patients.

### **Changes in Clerkship Content, Learning Experiences, or Teaching Formats Planned for 2004-2005:**

Implement revisions to student manuals, including competencies and revised objectives. Implementation of new case and procedure logs and review process.

### **Grading System Components:**

Clinical Clerkship Grade = 50%

General Surgery Grade, Elective Grade, Mandatory Procedures = 10%

Oral Exam Grade = 15%

National Board Grade = 25%

## **YEAR 4 SELECTIVES/ELECTIVES**

Forth year medical students at TTUHSC SOM are required to do the following rotations:

- Ambulatory Care Selective
- Critical Care Selective
- Neurology
- Sub-Internship

## **DEPARTMENT OF ANESTHESIOLOGY**

Professor & Chair: Jon Michael Badgwell, M.D.

### Lubbock

Stephen Gates, M.D., Professor & Associate Chair (Lubbock)

Associate Professor: Johnston.

Assistant Professors: Bolton, Escudier, Khalid, Schmitz, Shah

Professors: Cocking, Heavner, Racz, Meyhew (Pediatric Anesthesia)

Instructors: Chao, Meyhew, Sabar

### El Paso

Swapna Mandal-Chaudhuri, M.D., Ph.D., Associate Professor, Regional Chair & Program Director (El Paso)

Assistant Professor: Aikins, Mydur, Springmann

Academic Assistant Professor: Ortega

The Department of Anesthesiology offers the medical student an opportunity to apply basic sciences knowledge to a patient setting. The primary goal is to expose future physicians to current methods of life support and to enable students to approach with confidence the management of the airway of the unconscious patient and the support of the respiratory and cardiovascular systems. The department is involved in basic science, preclinical teaching with electives and preceptorships offered. Instruction will be given in the management of respiratory problems, acid-base and fluid balance, and the use of mechanical ventilators. Basic and clinical research opportunities are available to interested students. Additionally, the Department of Anesthesiology offers fourth year multidisciplinary electives in the Pain Center on the Lubbock campus. Patients are seen in the clinic setting as well as in-patient settings in the teaching hospitals. Students will learn about physiological assessment as well as different therapeutic modalities used in the management of chronic pain.

Required course: None.

Amarillo Division Senior Electives, (MSIV):

**ANESTHESIOLOGY.**

**MANE-806A-401. (Amarillo)** This elective is for students interested in anesthesiology and the insights which 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.

Prerequisite: Completion of Year III

Duration: 2 weeks or 4 Weeks

Call: Required, frequency varies

Students accepted: 1 per month

Offered: Available all year

Faculty: Thomas D. Easley, M.D.-Baptist Saint Anthony; Steve Goeitsche, D.O.-Baptist Saint Anthony; Bruce Pistocco, M.D.-Northwest Texas; Ahmed Shoukath, M.D.-Veterans Administration

El Paso Division Senior Electives, (MSIV):

**ANESTHESIOLOGY.**

**MANE-806A-801. (El Paso)** This is an elective for students interested in anesthesiology and the insights which this discipline provides toward the application of physiological and pharmacological principles to the care of the unconscious patient. Lectures and demonstrations, as well as preoperative, intra- perative and postoperative anesthetic care, will enable the student to be introduced to anesthesia and critical care. In addition to the fundamentals of anesthesia, the student will have the opportunity to acquire basic skills in airway management, respiratory and cardiovascular support, and fluid replacement. The student will also have an opportunity to learn the fundamentals of respiratory therapy and its application to patient care.

Lubbock Division Senior Electives, (MSIV):

**ANESTHESIOLOGY.**

**MANE-806A-001. (Lubbock)** This is an elective for students interested in anesthesiology and the insights which this discipline provides toward the application of physiological and pharmacological principles to the care of the unconscious patient. Lectures and demonstrations, as well as preoperative, intra-operative and postoperative anesthetic care, will enable the student to be introduced to anesthesia and critical care. In addition to the fundamentals of anesthesia, the student will have the opportunity to acquire basic skills in airway management, respiratory and cardiovascular support, and fluid replacement. The student will also have an opportunity to learn the fundamentals of respiratory therapy and its application to patient care.

**ANESTHESIOLOGY RESEARCH.**

**MANE-806C-001. (Lubbock)** This elective is designed to introduce students to clinical and basic science research in anesthesiology. Students will participate in on-going research projects with faculty.

**PAIN CENTER/PAIN MANAGEMENT.**

**MANE-806B-001. (Lubbock)** The Pain Center and the Pain Service have become a busy referral-type service where patients come from other medical disciplines usually suffering from chronic or intractable pain. The student will be involved in the initial interview, assessment, and management of these patients. Patients are seen in the Pain Center and in the inpatient setting at the University Medical Center. The students will be expected to become proficient in the understanding of common pain syndromes and have on-hand experience in carrying out pain relieving procedures.

**Additional information may be obtained from:**

**Department of Anesthesiology  
Texas Tech University Health  
Sciences Center  
School of Medicine  
3601 4th Street  
MS 8182  
Lubbock, TX 79430  
Phone: (806) 743-2981  
Fax: (806) 743-2984**

**Department of Anesthesiology  
Texas Tech University Health  
Sciences Center  
School of Medicine  
4800 Alberta Avenue  
El Paso, TX 79905  
Phone: (915) 545-6560  
Fax: (915) 545-6984**

**Lubbock Web:** <http://www.ttuhscl.edu/som/anesthesiology/index.html>

**El Paso Web:** <http://www.ttuhscl.edu/el Paso/som/anes/>

## **DEPARTMENT OF CELL BIOLOGY AND BIOCHEMISTRY**

Harry M. Weitlauf, M.D., Professor & Chair

Professors: Chilton, Everse, Faust, Hutson, Norman\*, Vidic and Stocco

Associate Professors: Beale, Coates, Cornwall, Coue, Dalley, Hardy,  
Lee, Little, MacDonald, McGlone\*, Pelley, B. Pence\*, Pfarr,  
Phillips\*, Sridhara, Whelley, Williams, and Wright\*

Assistant Professors: Dufour, Schneider, Thomas, Urbatsch and  
Webster

\*Joint Appointment

The Department of Cell Biology and Biochemistry offers a curriculum designed to prepare student physicians in the fields of Cell Biology, Biochemistry, Histology, Developmental Biology, Gross Anatomy, and Molecular Biology. Courses applicable to these fields contain information that is both clinically relevant and applicable to academic medicine. The department also offers two separate programs leading to the combined MD/PhD degrees; one in Cell and Molecular Biology and one in Medical Biochemistry. These specialized curricula involve medical training during the first two years of study followed by a period of time devoted entirely to graduate study in one of a wide variety of research areas represented within our department. After completion of the research project, the student begins the traditional third year of medical study and graduates after the fourth year of medical school with an M.D. and a Ph.D. degree.

Required courses:

This department is currently involved in multi-disciplinary education with other departments for the 1<sup>st</sup> year medical students. Combined courses include: Gross Anatomy, Biochemistry, and Histology.

Amarillo Division Senior Electives (MSIV):

**BIOCHEMICAL RESEARCH.**

**MBCH-806A-401. (Amarillo)** This elective is designed to meet the needs of those students who wish to obtain experience in biochemical research as it relates to human health. Students will work on an ongoing project of one of the Faculty members of the department.

Prerequisite: Completion of Year III

Duration: 4 Weeks

Call: n/a

Students accepted: varies

Offered: Available all year

Faculty: Catherine Phillips, Ph.D.; Steven Wright, M.D.

**BIOCHEMICAL RESEARCH IN MOLECULAR MEDICINE.**

**MBCH-806A-401. (Amarillo)** This elective is designed for the student interested in enhancing their understanding of the basic science of molecular diagnostic technology and recent advances in immunoprophylaxis. Special emphasis will be placed on pathogens of interest in Agricultural Medicine and Rural Health. The student will receive an introduction to both basic and advanced biochemical, immunological and molecular research techniques. The student will also gain experience in designing an experimental protocol, conducting experiments, statistical analyses of data, and preparing a scientific report. It is anticipated that the student will present the data at the student research forum and serve as author-co-author on abstracts and manuscripts submitted for publication.

Prerequisite: Completion of Year III

Duration: 4 Weeks

Call: n/a

Students accepted: 2

Offered: Available all year

Faculty: Afzal A. Siddiqui, Ph.D.; Steven L. Berk, M.D

Lubbock Division Senior Electives, (MSIV):

**ADVANCED ANATOMICAL STUDIES.**

**MCBA-806B-001. (Lubbock)** This elective involves in-depth studies in selected areas of surgical anatomy, gross anatomy, histology, embryology, and neurosciences or cell biology.

**ADVANCED GROSS ANATOMY.**

**MCBA-806C-001. (Lubbock)** This is an in-depth gross anatomical study devoted to one of the following areas of emphasis: topographical anatomy, head and neck, thorax and abdomen, pelvis and perineum, extremities and back, depending on the needs of the student. The courses may be repeated for credit if another are of emphasis is selected.

**BIOCHEMICAL RESEARCH.**

**MBCH-806A-001. (Lubbock)** This elective is designed to meet the needs of those students who wish to obtain experience in biochemical research as it relates to human health. Students electing this course will work on an ongoing project of one of the faculty members of the department.

**Additional information may be obtained from:**

**Department of Cell Biology & Biochemistry  
Texas Tech University Health Sciences Center  
3601 4th Street, MS 6540  
Lubbock, Texas 79430  
Phone: (806) 743-2700  
Fax: (806) 743-2990**

**Web: <http://www.ttuhscc.edu/cbb/>**

## DEPARTMENT OF DERMATOLOGY

Associate Professor & Chair: Cloyce Stetson, M.D.

Professors: Neldner (emeritus)

Assistant Professors: Smith, Wells

The Department of Dermatology provides educational and research programs in dermatology for (1) undergraduate medical students; (2) residents; and (3) other students requiring instruction in dermatology. In addition to full time faculty listed above, a number of clinical faculty from the communities in the service area assist in the instruction and training in dermatology. The department organizes a 12-hour required dermatology course that appears as part of the larger Introduction to Internal Medicine course in the second year of medical school. A two-week or one-month preceptorship elective is offered to fourth year medical students and to residents at all levels of training in other disciplines. There is broad exposure to general dermatology, pediatric dermatology, dermatopathology, dermatologic surgery, and dermatologic research. The Dermatology residency program has seven trainees.

Amarillo Senior Electives (MSIV)

### OFFICE DERMATOLOGY.

**MDER-806A-401. (Amarillo)** This private office experience is combined with reading assignments and weekly staff conferences. Whole or half-day schedule is allowed with permission of the instructor.

Prerequisite: Completion of Year III

Duration: n/a

Call: n/a

Students accepted: 3 per month

Offered: Available all year at Veterans Administration Medical Center; available September through June at Baptist St. Anthony's

Faculty: Elizabeth Archer, M.D.-Baptist St. Anthony; James Yeary, M.D.-Veterans Administration Medical Center

El Paso Division Senior Electives, (MSIV):

**DERMATOLOGY CLINICS.**

**MDER-806A-801. (El Paso)** This elective is designed to expose the student to a wide variety of dermatologic conditions with the expectation that at the conclusion of the period common disorders will be recognizable. The student will participate in clinics observing a variety of dermatologic disorders and dermatologic procedures in the adult and pediatric patient population. The elective is five days a week and is based on a four-week schedule. MDER-806C-001 – DERMATOPATHOLOGY. This elective is designed to give 4th year medical students exposure to and experience in dermatopathology.

Lubbock Division Senior Electives, (MSIV):

**DERMATOLOGY CLINICS.**

**MDER-806A-001. (Lubbock)** 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. Clinics are in the TTUHSC Department of Dermatology ambulatory clinic, the Veterans Administration Clinic, and other outside clinics staffed by the departmental faculty. This elective is based on a two- or four-week, whole day schedule. Special projects may be arranged by individual consideration. Exams are given at the end of each rotation covering an introductory book loaned to the student.

**DERMATOLOGY RESEARCH.**

**MDER-806B-001. (Lubbock)** This elective is designed to introduce students to clinical and basic science research in dermatology. Students will participate in on-going research projects with faculty.

**DERMATOPATHOLOGY.**

**MDER-806C-001. (Lubbock)** This elective is designed to give 4<sup>th</sup> year medical students exposure to and experience in dermatopathology.

**Additional information may be obtained from:**

**Department of Cell Biology & Biochemistry  
Texas Tech University Health Sciences Center  
3601 4th Street, MS 6540  
Lubbock, Texas 79430  
Phone: (806) 743-2700  
Fax: (806) 743-2990**

**Web: <http://www.ttuhscc.edu/cbb/>**

## **DEPARTMENT OF EMERGENCY MEDICINE**

### El Paso

Associate Professor & Chair: Mathew J. Walsh, M.D.

Professor and Residency Director: Brian K. Nelson, M.D.

Associate Professor: Loflin, Gerhardt (Part-Time), Haynes, Marill (Part-Time), Peterson (Part-Time)

Assistant Professors: Atkinson, Brown, Bryan, Butler, Chinnock (Part-Time), Croker, Goldstein, Greene, Greer, Kilgo, MacKay, Ochoa, Palafox, Postma (Part-Time), Watts

Instructor: King, Smith

Medical Director, EP EMS: Loflin

Research Director: Haynes

Student Director: Atkinson

Emergency Medicine concentrates on the initial care and stabilization of the seriously ill. In addition, the emergency physician triages and begins treatment of any patient presenting for help.

Fourth year students are offered an elective in Emergency Care at each campus. They are afforded the opportunity to provide initial evaluation and treatment for acutely ill patients under direct supervision. Areas given particular emphasis include airway management, trauma evaluation, Emergency Medical Services, behavioral emergencies, shock resuscitation and decision making.

A second elective is offered at the El Paso campus for students wishing to concentrate on emergency medicine subspecialties such as pediatric emergencies, toxicology or research.

A third elective is available in El Paso for students interested in an extensive pre-hospital care experience, to include communications, field experience, administration, quality assurance and protocol development.

Required Courses: none

Amarillo Division Senior Electives, (MSIV):

**EMERGENCY MEDICINE.**

**MSUR-806C-401. (Amarillo)** This 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.

El Paso Division Senior Electives, (MSIV):

**EMERGENCY MEDICINE.**

**MSUR-806C-801. (El Paso)** This elective primarily involves patient care responsibilities in the Emergency Department along with a didactic lecture series, reading assignments, and an exposure to prehospital care. The elective is held at R. E. Thomason General Hospital, which is the city/county hospital for El Paso County. The average patient census is 55,000 patients per year (approximately 135 per day). This elective offers students the opportunity to evaluate a wide variety of unscreened patient presentations representing all medical specialties and subspecialties. There is opportunity available for exposure to a high volume of acutely ill patients, to a sizeable volume of both blunt and penetrating trauma, to prehospital care, and opportunity to become acquainted with the practice and science of resuscitation.

**EMS AND PREHOSPITAL CARE.**

**MSUR-806R-801. (El Paso)** This elective is designed to provide instruction and experience in prehospital 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 prehospital 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 prehospital emergency care by riding on ambulances and participating in in-patient care; to observe EMS administration including

operations and budgetary considerations; to be exposed to ongoing quality control mechanisms in the prehospital setting; and to provide the student with didactic sessions on a number of aspects of EMS systems and prehospital care.

Lubbock Division Senior Electives, (MSIV):

**EMERGENCY MEDICINE.**

**MSUR-806C-001. (Lubbock)** The Emergency Center sees a wide variety of traumatic injury and medical illness. Under the supervision of the Emergency Center attending physicians, students will participate in the management of various emergent conditions including trauma, medicine, pediatrics, and obstetrics-gynecology. There will be ample opportunity to learn suture technique, EKG and x-ray interpretation, and the correct approach to the resuscitation of victims of trauma and cardiopulmonary arrest.

**TRAUMA/EMERGENCY MEDICINE.**

**MSUR-806H-001. (Lubbock)** This elective under the supervision of a preceptor provides an opportunity to learn techniques in resuscitation and the management of trauma in a special intensive care setting. The clerk will learn and apply techniques of monitoring vital system functions including the use of monitoring devices. Experience in Emergency Room services is a component of this elective.

**Additional information may be obtained from:**

**Department of Emergency Medicine  
Texas Tech University Health Sciences Center  
6090 Surety Drive, Room 412  
El Paso, Texas 79905  
Phone: (915) 545-7333  
Fax: (915) 774-4905**

**Web: <http://www.ttuhschool.edu/elpaso/SOM/em/>**

## DEPARTMENT OF FAMILY AND COMMUNITY MEDICINE

### Lubbock

Associate Professor & Braddock Chair: Michael Ragain, M.D.

Professor: Way

Associate Professors: Baker, Chauncey, Cook, Jones, Mitchell, Warner, Zhang

Assistant Professors: Aleman, Arif, Bennett, Dyer, Evans, Farrell, Hood, Linton, Paxton, Peck, Prabhu, Schmidt, Shaffer, Villareal, Xu

### Amarillo

Regional Chair: Dr. Rodney Young, M.D.

Professors: Rohrer, Wright

Associate Professors: Bryan, Egerton, Schneider, Zoller

Assistant Professors: Balmes, Benton, Goetz, Hines, Hromas, McCaleb, Nixon-Lewis

### El Paso

Regional Chair: Mary C. Spalding, M.D.

Associate Professor: Horn, Noriega

Assistant Professors: Aragon, Islas, Perez, Sebesta, Urquidi

Instructor: Rubio

Faculty Associates: Cardona, Walls

### Odessa

Regional Chair: Dannen D. Mannschreck, M.D.

Assistant Professors: Garcia, Hooper, Le, Patel, Sponsel

The Department of Family and Community Medicine is primarily concerned with provision of training in ambulatory and comprehensive medical care with particular emphasis on the family unit. The core of cognitive and procedural skills in Family Practice allows for a unique role in patient care. By combining and integrating biomedical, behavioral and social sciences, ongoing comprehensive management of a wide variety of patient age groups and illnesses is achieved. The research of the department is conducted in clinical settings to develop and evaluate more effective methods of health care delivery. The department's laboratories include ambulatory care centers, physicians' offices, emergency medicine departments, nursing homes, and a variety of health care clinics.

The department also serves as the Student Health Service to medical students, nursing students, allied health students, and pharmacy students on the four campuses, and staffs the Student Health Service for all of Texas Tech University.

The department has significant involvement in the pre-clinical curriculum in courses such as Foundations for Medical Practice and Skills for Patient Assessment. The Division of Preventive and Occupational Medicine is also involved in clinical care as well as instruction of medical students in Epidemiology and Biostatistics and Assessing Medical Evidence. The Division of Preventative Medicine also plays a key role in employee health for Texas Tech University Health Sciences Center.

Required Course:

**FAMILY MEDICINE CLERKSHIP. (6 weeks)**

**MFAM 7096-401. (Amarillo); MFAM 7096-801. (El Paso); MFAM 7096-001. (Lubbock)** A six-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.

Amarillo Senior Electives (MSIV):

**CORRECTIONAL MEDICINE.**

**MFAM-806D-401. (Amarillo)** This elective provides the student an introduction to medicine in the prison system. Students will be supervised by Texas Tech University HSC Faculty at the Clements Unit in Amarillo. Topics covered include preventive medicine, emergency medicine, community medicine as well as general medical care.

Prerequisite: Completion of Year III

Duration: 4 weeks

Call: None

Students Accepted: 2 per month

Offered: Available all year

Faculty: Tim Revell, M.D.

**FAMILY MEDICINE PRECEPTORSHIP.**

**MFAM-806A-401. (Amarillo)** 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 are available in the Education Office and must be completed several months in advance.

Prerequisite: Completion of Year III

Duration: 4 weeks

Call: none

Students Accepted: Varies

Offered: Available all year

Faculty: (Urban and rural locations)

**FAMILY MEDICINE – WOMEN’S AND CHILDRENS HEALTHCARE.**

**MFAM-806I-401. (Amarillo)** Guidelines for 4th year rotation in Family Medicine - Womens and Childrens Healthcare In-patient responsibilities: the student will be responsible for rounding on unassigned postpartum and nursery patients, also know as "team moms and babies". Notes should be completed by 09:00, and the student will be available to round with the Faculty physician at that time. Call responsibilities: the student will have 5 calls in the 4 week rotation, with one call being on a weekend day. While on call, the student will follow the upper level resident and be responsible for seeing patients with obstetrical and gynecologic complaints. Continuity obstetrics: during the rotation, the student will be assigned a patient at approximately 37-38 weeks. The student will then be responsible for coming

to labor and delivery to work-up complaints, under the supervision of the resident assigned to that patient and the Faculty physician on call. The student will assist in the peripartum management to the level of their ability, and follow the patient in the postpartum period. Clinic responsibilities: the student will see primarily women and children patients in the outpatient setting, but also be available to see walk-in obstetric patients. In-patient procedures and responsibilities will take precedence. Academic responsibilities: the student will prepare 2 presentations during the 4 week elective, one dealing with womens health and the other dealing with newborn care. The goal of this rotation is for the 4th year student to become familiar with and appreciate the continuity of care family physicians are in the unique position to provide their obstetric patients and their families. Grading will be based on clinical performance (90%) and presentations (5% each).

Prerequisite: Completion of Year III

Duration: 4 weeks

Call: Required, frequency varies

Students Accepted: 1 per month

Offered: Available all year

Faculty: Susan Goetz, M.D and Morgan McCaleb, M.D.

### **GERIATRIC CARE.**

**MFAM-806E-401. (Amarillo)** This elective 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 Two  
Faculty will be available.

Prerequisite: Completion of Year III

Duration: 4 weeks

Call: None

Students Accepted: 1 per month

Offered: Available all year

Faculty: Charles Wright, M.D., Dr. Dennis Zoller

### **OCCUPATIONAL MEDICINE.**

**MPRM-806A-401. (Amarillo)** This elective is a unique opportunity for students to observe and participate in both a previous occupational medicine clinic and an industrial clinic. Rotation includes didactic and clinical material including; diagnosis and treatment of congenital injuries and diseases, setting up preventive health services for employee groups, i.e., hearing conversation, respiratory surveillance; and designing and implementing employee health and fitness programs. The application of preventive medicine to clinical practice will be emphasized. The treatment and diagnosis

capabilities as well as the competency of the medical staff assure the student of a fine learning experience.

Prerequisite: Completion of Year III

Duration: 4 weeks

Call: None

Students Accepted: 4 per rotation

Offered: Available all year

Faculty: Rush Pierce, M.D.

El Paso Division Senior Electives, (MSIV):

### **COMMUNITY MEDICINE.**

**MFAM-806G-801. (El Paso)** This course 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.

### **FAMILY MEDICINE PRECEPTORSHIP (Clinic-based).**

**MFAM-806A-801. (El Paso)** A variety of preceptors and clinic sites are available in which to learn the day-to-day practice of family medicine on the border with Mexico. Students will learn skills to more rapidly and effectively assess and manage the outpatient; the importance and rewards of continuity of care; insights into how to prepare for practice in the era of managed care; how to analyze the medical literature to answer clinical questions; and the impact of a bicultural society on the practice of medicine.

### **FAMILY MEDICINE SENIOR CLERKSHIP.**

**MFAM-8061-801. (El Paso)** This elective emphasizes the breadth of family medicine as it includes appropriate utilization of skills in internal medicine, surgery, obstetrics/gynecology, pediatrics, and psychiatry. Family-oriented health care, both in the office and hospital, are combined with seminars concerned with clinical skills, family dynamics, and preventive care. The team approach to health care is emphasized. Additional responsibility and independence beyond the required clerkship is expected.

Lubbock Division Senior Electives, (MSIV):

**COMMUNITY MEDICINE.**

**MFAM-806K-001. (Lubbock)** The goal of the elective is to prepare students to transition into a residency program by increasing student exposure to the care of patients in the family medicine setting. Students are assigned to a variety of practices including family medicine clinic community preceptors, hospital service, or a combination of these settings for a supervised exposure to day-to-day practices. Emphasis is on the application of clinical skills with the demands and limits of actual practice.

**FAMILY MEDICINE PRECEPTORSHIP.**

**MFAM-806A-001. (Lubbock)** Students are assigned to a variety of physician practices within the urban or rural areas of the Permian Basin 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.

**FAMILY MEDICINE SENIOR CLERKSHIP (Ambulatory Selective).**

**MFAM-8061-001. (Lubbock)** This elective prepares students for the transition into a residency program by increasing exposure to the care of patients in the out-patient 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.

**FAMILY MEDICINE SUB-INTERNSHIP.**

**MFAM-806B-001. (Lubbock)** This elective cannot be used to satisfy the senior subinternship requirement. Patients of all ages, of both sexes, and with diverse medical problems will be managed. 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.

### **STUDENT HEALTH AND ADOLESCENT MEDICINE.**

**MFAM-806G-001. (Lubbock)** This 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.

Odessa Division Senior Electives, (MSIV):

### **FAMILY MEDICINE PRECEPTORSHIP.**

**MFAM-806A-240. (Odessa)** Students are assigned to a variety of physician practices within the urban or rural areas of the Permian Basin 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.

### **FAMILY MEDICINE SENIOR CLERKSHIP.**

**MFAM-8061-240. (Odessa)** This elective emphasizes the breadth of family medicine as it includes appropriate utilization of skills in internal medicine, surgery, obstetrics/gynecology, pediatrics, and psychiatry. Family-oriented health care, both in the office and hospital, are combined with seminars concerned with clinical skills, family dynamics, and preventive care. The team approach to health care is emphasized. Additional responsibility and independence beyond the required clerkship is expected.

**Additional information may be obtained from:**

**Department of Family &  
Community Medicine  
Texas Tech University Health  
Sciences Center  
School of Medicine  
3601 4th Street  
MS 8143  
Lubbock, TX 79430  
Phone: (806) 743-2775  
Fax: (806) 743-3955**

**Department of Family Medicine  
Texas Tech University Health  
Sciences Center  
School of Medicine  
1400 S. Coulter Street  
Amarillo, TX 79106  
Phone: (806) 212-3558  
Fax: (806) 351-3791**

Lubbock Web: <http://www.ttuhscc.edu/SOM/FamMed/deptpage.html>  
Amarillo Web: <http://www.ttuhscc.edu/amarillo/som/FM/>

**Department of Family &  
Community Medicine  
Texas Tech University Health  
Sciences Center  
School of Medicine  
9849 Kenworthy Street  
MS 8143  
El Paso, TX 79924  
Phone: (915) 757-3178  
Fax: (806) 751-4378**

**Department of Family &  
Community Medicine  
Texas Tech University Health  
Sciences Center  
School of Medicine  
701 West 5<sup>th</sup> Street  
Odessa, TX 79763  
Phone: (432) 335-5311  
Fax: (432) 335-5316**

El Paso Web: <http://www.ttuhscc.edu/el Paso/SOM/FM/>  
Odessa Web: <http://www.ttuhscc.edu/odessa/som/FM/>

## **DEPARTMENT OF INTERNAL MEDICINE**

### Lubbock

Professor & Chair: Donald E. Wesson, M.D.

Professors: Cobos, Jenkins, Kimbrough, Kurtzman, Laski, Nugent, Variyam  
Associate Professors: Bickley, Hancock, Hodges, Jumper, Meyerrose,  
Prabhakar, Ratnoff  
Assistant Professors: Bakdash, Buscemi, D'Cunha, Hardwicke, Khanna,  
Neilson, Phy, Roongsritong, Shome, Stachowiak, Suarez, Sutthiwan, Tello

### Amarillo

Associate Professor & Regional Chair: William R. Davis, M.D.

Professor: Berk, Lim, Phillips  
Associate Professors: Kelleher, Khandheria, Leeper, Siddiqui, Stenhouse,  
Urban, Weis, Werner, Wright  
Assistant Professors: Assadourian, Cutts, Dobrzanski, Goplalachar, Jenkins,  
Oltermann, Wang, Wilson, Zhang  
Instructors: Oommen, Serrato

### El Paso

Professor & Regional Chair: Manuel Rivera, M.D.

Professors: Casner, Hand, Ho, Williams, Zuckerman  
Associate Professor: Bright, Chamberlin, Davis Harry, Khan, Nwosu, Pema,  
Tyroch, Zaloznik  
Assistant Professors: Demick, Figueroa-Casas, Fleming, Hughes, Meza,  
Mohaned-Aly, Morales, Nutis, Stubbers, Urtubey, Wang

### Odessa

Dan J. Hendrickson, M.D., Associate Professor & Regional Chair (Odessa)

Professor: Burks  
Associate Professors: Cuhaci, Loveman, Sharifi  
Assistant Professors: Haider, Mohapatra, Nichols, Olano, Mayo-Olano, Oud,  
Rahman, Reid, Saad

The goal of the Department of Internal Medicine is to instruct students and house staff in the diagnosis, pathophysiology, and comprehensive management of disease. Central to this goal is the development of skills in obtaining a complete history and performance of an accurate and thorough physical examination by direct instruction in a patient care setting. Members of the department participate actively in instruction in pathophysiology with basic science departments in the first two years, providing a bridge between the science and the art of medicine. Comprehensive and cost-effective diagnosis and management of disease are the focus of the third-year clerkship and the fourth-year externships and subspecialty electives. Daily contact with both faculty for both bedside and didactic teaching and participation in the patient care team are the major aspects of these courses. Both inpatient and outpatient clinical settings are utilized for teaching. The department offers electives in all medical subspecialties B Cardiology, Rheumatology, Infectious Disease, Nephrology, Endocrinology, Gastroenterology, Pulmonary Disease, Hematology-Oncology, and Allergy. Externship experience is available on the medical wards and in the Medical Intensive Care Unit. The department is active in numerous research projects and students interested in research may take electives to participate in certain projects.

Required Courses:

**CLERKSHIP IN INTERNAL MEDICINE. (12 Weeks)**

**MINT 7091-401 (Amarillo); MINT 7091-801 (El Paso); MINT 7091-001 (Lubbock);**

In this twelve-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.

Amarillo Senior Electives (MSIV):

**CLINICAL AND LABORATORY RESEARCH.**

**MINT-806T-401. (Amarillo)** 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.

Prerequisite: Completion of Year III  
Duration: 8 weeks, minimum  
Call: None  
Students Accepted: 1  
Offered: Available all year

Faculty: Catherine Phillips, Ph.D., Afzal Siddiqui, Ph.D., Seah Lim, M.D.

### **CARDIOLOGY.**

**MINT-806B-401. (Amarillo)** This elective will expose the student to the office and hospital practice of cardiology. The students will be expected to do extensive reading in the cardiology literature, to attend cardiology conferences at Amarillo hospitals, and to take an active role in the care of cardiac patients.

Prerequisite: Completion of Year III  
Duration: 4 weeks  
Call: None  
Students Accepted: 2 per month  
Offered: Available all year

Faculty: Amarillo Diagnostic Clinic - L. Monte Slatton, M.D., et al; Amarillo Heart Group - B. Ronald Fortner, M.D., J. Martinez-Arraras, M.D., et al

### **ENDOCRINOLOGY.**

**MINT-806C-401. (Amarillo)** This elective includes both inpatient and outpatient care, weekly conferences in both 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.

Prerequisite: Completion of Year III  
Duration: 4 weeks  
Call: None  
Students Accepted: Varies  
Offered: Available all year

Faculty: Harold Werner, M.D.

## **GASTROENTEROLOGY.**

**MINT-806D-401. (Amarillo)** 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 at the Veterans Administration Medical Center or at Northwest Texas Hospital.

Prerequisite: Completion of Year III

Duration: 4 weeks

Call: None

Students Accepted: 2 per month

Offered: Available all year

Faculty: TTUHSC Clinical Faculty - Abdul Thannoun, M.D. and Malwinder Sidhu, M.D.; Amarillo Diagnostic Clinic; Thomas Johnson, M.D., et al.

## **GENERAL INTERNAL MEDICINE.**

**MINT-806A-401. (Amarillo)** This elective is an acting internship on the general medicine ward service at Northwest Texas Hospital or the Veterans Administration Medical Center.

Prerequisite: Completion of Year III

Duration: 4 weeks

Call: Required; every 4<sup>th</sup> night

Students Accepted: 2 at Northwest Texas; 1 at VAMC

Offered: Available all year

Faculty: TTUHSC Full-time Internal Medicine Faculty

## **HEMATOLOGY-ONCOLOGY.**

**MINT-806F-401. (Amarillo)** This elective includes an introduction to outpatient care at the Harrington Cancer Center medical oncology clinics, some inpatient consultations, and daily didactic sessions. After the one-month elective, a student should be able to recognize major diseases on peripheral blood smears and bone marrow slides, and understand the staging and management of the most common problems in oncology.

Prerequisite: Completion of Year III

Duration: 4 weeks

Call: None

Students Accepted: 2 per month

Offered: Available all year

Faculty: TTUHSC - Seah Lim, M.D.; Harrington Cancer Center - Brian Pruitt, M.D., et al; VAMC - Stephen Wright, M.D., Raymond Osarobiagbon, M.D.

## **HOSPICE.**

**MINT-806U-401. (Amarillo)** 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.

Prerequisite: Completion of Year III

Duration: 2 weeks or 4 weeks

Call: None

Students Accepted: 2 per month

Offered: Available all year

Faculty: Crown of Texas Hospice and-or Baptist St. Anthonys Hospice - Dan Jenkins, M.D., Randy Stewart, M.D., Sergio Muniz, M.D.

## **MEDICAL ICU-PULMONARY CARE.**

**MINT-806G-401. (Amarillo)** This elective utilizes patients admitted to the intensive care units of Northwest Texas Hospital. 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. The student will be evaluated on medical knowledge, the ability to integrate pertinent data to arrive at a proper management plan, clinical skills in history taking, physical examination and procedural skills, the ability to relate to patients and work with other physicians and ancillary staff, professional and humanistic behavior, and the student's contribution as a member of the health care team.

Prerequisite: Completion of Year III

Duration: 4 weeks

Call: Required, every 4<sup>th</sup> night

Students Accepted: 2 per month

Offered: Available all year

Faculty: TTUHSC Full-time Internal Medicine Faculty

### **NEPHROLOGY.**

**MINT-806G-401. (Amarillo)** The student will spend four weeks evaluating renal outpatients, including patients receiving hemodialysis. The student will also follow patients in the hospital. Outside reading in the nephrology literature is expected.

Prerequisite: Completion of Year III

Duration: 4 weeks

Call: None

Students Accepted: 2 per month

Offered: Available all year

Faculty: Georges Maliha, M.D., Milton Giron, M.D.

### **NEUROLOGY.**

**MNEU-806F-401. (Amarillo)** 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.

Prerequisite: Completion of Year III

Duration: 4 weeks

Call: None

Students Accepted: 2 per month

Offered: Available all year

Faculty: Rachel Philip, M.D.-VAMC, Rush Snyder, M.D.

### **RADIATION ONCOLOGY.**

**MINT-806S-401. (Amarillo)** 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.

Prerequisite: Completion of Year III

Duration: 2 weeks or 4 weeks

Call: None

Students Accepted: 2 per month

Offered: Available all year

Faculty: Harrington Cancer Center Radiation Oncologist

El Paso Division Senior Electives, (MSIV):

### **CARDIOLOGY.**

**MINT-806B-801. (El Paso)** This elective offers exposure to a wide array of cardiovascular diseases in both the acute as well as the ambulatory setting. The elective is a consultative service and is held in the Coronary Care Unit setting as well as in telemetry floors of Thomason Hospital. It is designed primarily for the student with interests in Internal Medicine, Emergency Medicine or Family Medicine. Emphasis is on history taking, physical exam, diagnostic work-up and therapeutic modalities available to a cardiac patient. Diagnosis and management of chest pain, unstable angina, myocardial infarctions, heart failure, arrhythmias as well as preventive strategies are discussed. Students are encouraged to see patients on consultation, take part in treadmill stress tests with the cardiology resident, and read echocardiograms and ECGs with the attending physician. Didactic lectures are given by the Cardiologist on service. The Residents and students are invited to prepare a topic of their choice for general discussion. Weekly cardiac catheterization conferences are held to discuss indications for cardiac catheterizations, analyze stress tests as well as understand hemodynamic tracings of both right and left heart catheterization.

### **ENDOCRINOLOGY.**

**MINT-806C-801. (El Paso)** This elective includes a busy outpatient clinic with new patients and follow-up visits as well as ward consultations. The elective is designed primarily for the student with interests in internal medicine but is appropriate for students with other interests desiring more proficiency in handling endocrine problems. Major emphasis is placed on the outpatient diagnosis and treatment of diabetes mellitus and thyroid disease although the student will see a wide spectrum of hormonal imbalances during the rotation. The rotation includes 3 days in adult endocrine and 2 days in pediatric endocrine each week.

### **GASTROENTEROLOGY.**

**MINT-806D-801. (El Paso)** This elective offers a broad spectrum of GI-Liver disease that will be seen on the consultation service and in the outpatient clinic. The student will gain experience with sigmoidoscopy, indications and role of endoscopy, GI radiology and pathology. Students will be expected to attend the weekly GI conferences and journal club meetings held jointly with William Beaumont Army Medical Center.

## **GENERAL INTERNAL MEDICINE.**

**MINT-806A-801. (EI Paso)** This elective is designed both for the student interested in internal medicine and the student interested in other specialties who would like to strengthen his/her background in medicine. Two types of electives are available. Both electives will include reading assignments and attendance at various departmental conferences. The first elective is designed as an externship on the General Medicine Ward Service. A minimum of 4 weeks is required for the Ward Service Elective. The second elective assigns the student to work with a general internist on the General Medicine Consultation Service (inpatient) and in the clinic with walk-in and selected subspecialty patients. 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.

## **INFECTIOUS DISEASES/ADVANCED BEDSIDE MEDICINE.**

**MINT-806E-801. (EI Paso)** R. E. Thomason General Hospital provides the opportunity to see both common and exotic problems in infectious diseases. The nature of infectious disease consultation is to see patients across many disciplines and with a focus on every system of the body. The evolution of AIDS and its ability to produce a vast array of bedside signs has made bedside examination and diagnosis particularly important. Faculty members who teach this elective are very interested in bedside medicine and physical diagnosis. This elective offers the student not only the opportunity to learn the principles of infectious diseases but also to hone their clinical examination skills. The emphasis of this elective will be to familiarize the student with principles of antibiotic selection, the best utilization of the microbiology laboratory, interpretation of gram stains, AFB stains, and blood cultures. It is expected that clinical case material will allow the student to thoroughly understand the following conditions: tuberculosis, staphylococcal bacteremia, gram-negative bacteremia, infection in the neutropenic patient, AIDS and infection in HIV+ patients. pneumonia, meningitis, and urinary tract infections, as well as many other conditions that undoubtedly will be encountered. There will also be opportunities to see patients in other hospitals. A monthly infectious diseases conference will be held in conjunction with the infectious disease specialists at William Beaumont Army Medical Center. The student will take new consultations called in on rotation; the patient will then be followed up until discharged or until the infectious diseases service signs off the case. If time permits the students should try to familiarize themselves with the literature pertinent to the case and to share relevant papers with other team members. Assistance and encouragement will be given to write a case report, a clinical review, or prepare a vignette on an aspect of the history of medicine.

### **INTERNAL MEDICINE SUB-INTERNSHIP.**

**MINT-806P-801. (EI Paso)** This ward-based, primary care sub-internship provides the student an individualized, case-oriented experience as a subintern 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 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.

### **MEDICAL INTENSIVE CARE UNIT.**

**MINT-806G-801. (EI Paso)** This elective allows the student an in-depth exposure to critically ill medicine patients. As a result, the student should become comfortable and proficient in their evaluation and management of patients. The student is expected to function as an extern forming part of a team made up of four medicine house officers under the close supervision of a full-time intensivist.

### **NEPHROLOGY.**

**MINT-806H-801. (EI Paso)** This elective allows the student to become comfortable and proficient in evaluating the patient with both acute and chronic renal failure. A variety of acid-base, fluid and electrolyte disorders are seen and discussed as well as diagnosis and treatment of essential and non-essential hypertension.

### **ONCOLOGY.**

**MINT-806F-801. (EI Paso)** This elective is designed to provide clinical experience through oncologic consultations on the R. E. Thomason General Hospital inpatient wards. In addition, patients will be seen in the general oncology and breast cancer outpatient clinics. Attendance at the monthly breast cancer and general tumor boards is encouraged. There is no night call.

### **PULMONARY MEDICINE.**

**MINT-806K-801. (EI Paso)** 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.

## **RHEUMATOLOGY.**

**MINT-806L-801. (El Paso)** This elective offers an in-depth look at the clinical array of rheumatologic disorders. This is a consult service. 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. Clinics are held 3 times a week in the mornings.

Lubbock Division Senior Electives, (MSIV):

## **ALLERGY AND CLINICAL IMMUNOLOGY.**

**MINT-806M-001. (Lubbock)** 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.

## **CARDIOLOGY.**

**MINT-806B-001. (Lubbock)** 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.

## **ENDOCRINOLOGY.**

**MINT-806C-001. (Lubbock)** In this ambulatory clinic elective, students will see a variety of patients with endocrinologic problems, present selected topics, and have exposure to endocrinologic diagnostic procedures and laboratory techniques. Selected topics in endocrinology will be covered in conferences with attending two to three times per week. There is also opportunity for ward consultation. This elective may be combined with Pediatric Endocrinology in Lubbock.

## **GASTROENTEROLOGY.**

**MINT-806D-001. (Lubbock)** In this elective, students will have the opportunity to see and evaluate a broad spectrum of patients with digestive and hepatobiliary disease in the Gastroenterology Inpatient Consultation Service. One half-day per week the student will gain ambulatory care experience in one of the Gastroenterology Clinics. There will be ample exposure to endoscopic and manometric procedures and in interpretation of gastrointestinal function tests in the Digestive disease Center of University Medical Center. There are regularly scheduled division conferences which the student will participate. Additionally, the supervising faculty will hold discussions on common gastroenterological problems and their pathophysiology, evaluation and management. Upon completion of the elective, students will be able to perform a competent gastroenterology-oriented examination, understand the appropriate indications for gastrointestinal endoscopy, and be familiar with the natural history and therapy of common gastroenterology problems.

## **HEMATOLOGY / ONCOLOGY.**

**MINT-806F-001. (Lubbock)** 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. Option for major focus in ambulatory or ward setting, or both.

## **INFECTIOUS DISEASES.**

**MINT-806E-001. (Lubbock)** 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.

### **INTERNAL MEDICINE CLINICAL RESEARCH.**

**MINT-806T-001. (Lubbock)** This non-consecutive two-month elective will introduce the student to clinical biochemical research. The student will choose a project from among a variety offered by the various divisions in the Department of Internal Medicine, do a literature search and background reading, write a proposal, establish a research protocol, and learn the necessary laboratory techniques during the first month of the elective. During the ensuing several months, the student will collect samples and/or record patient clinical data during his/her spare time. The project will then be completed with a second research month, during which the student will analyze his/her samples, correlate and analyze the data, and write up the experiment for publication and/or presentation at a scientific meeting.

### **INTERNAL MEDICINE - COMMUNITY MEDICINE PRECEPTORSHIP.**

**MINT-806V-001. (Lubbock)** In this elective the student will be assigned to a participating community preceptor in Internal Medicine (general or subspecialty) for a four-week period. During this time, the student will see and participate in the care of a variety of patients (predominantly ambulatory) and be asked to prepare brief reports on topic of relevance in their care.

### **INTERNAL MEDICINE SUB-INTERNSHIP.**

**MINT-806P-001. (Lubbock)** This ward-based, primary care sub-internship provides the student an individualized, case-oriented experience as a subintern 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 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.

### **MEDICAL INTENSIVE CARE UNIT / CARDIAC CARE UNIT.**

**MINT-806G-001. (Lubbock)** The Medical ICU/Cardiac Care Unit elective will provide the student with a well-structured experience in all the phases of critical care medicine. Daily teaching and x-ray rounds are held seven days a week.

## **NEPHROLOGY.**

**MINT-806H-001. (Lubbock)** 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. Most of the elective will be involved with the nephrology consultation and University Medical Center inpatient services with dialysis rounds. Weekly outpatient clinic experience entails patients with severe, difficult-to-control hypertension, chronic renal disease, etc. The student will attend nephrology teaching conferences and be assigned topics for review and presentation.

## **NEPHROLOGY BASIC RESEARCH.**

**MINT-806I-001. (Lubbock)** This consecutive three-month elective affords students interested in basic biomedical research an opportunity to develop a proposal for a research project within the framework of ongoing studies (membrane transport, isolated perfused tubules, solute clearance, or vascular endothelial biology) under the close supervision and guidance of an experienced investigator. The student will be guided in a critical analysis of background literature, gain familiarity with a variety of laboratory methods and techniques, and learn the process of gathering, recording, and analyzing data. The student will then write up his/her study in preparation for publication and/or presentation of a scientific meeting. Periodic presentation of data in conference will be expected.

## **PULMONARY MEDICINE.**

**MINT-806K-001. (Lubbock)** This elective consists of pulmonary consultation of medical ward and critical care patients. The student will have experience in interpreting pulmonary function tests, bronchoscopy, and Swan-Ganz catheterization. Emphasis will be placed on bedside diagnosis and the pathophysiology of pulmonary diseases.

## **RHEUMATOLOGY.**

**MINT-806L-001. (Lubbock)** This elective deals primarily with diagnosis and management of patients with rheumatological problems, including radiologic interpretation and studies of joint fluid aspirate. The student will also follow hospitalized patients referred to or admitted by the faculty of the Department of Internal Medicine.

**Additional information may be obtained from:**

**Department of Internal Medicine  
Texas Tech University  
Health Sciences Center  
School of Medicine  
3601 4th Street  
MS 9410  
Lubbock, TX 79430  
Phone: (806) 743-3155  
Fax: (806) 743-3148**

**Department of Internal Medicine  
Texas Tech University  
Health Sciences Center  
School of Medicine  
1400 S. Coulter Street  
Room 2409  
Amarillo, TX 79106  
Phone: (806) 354-5483  
Fax: (806) 351-5764**

Lubbock Web: <http://www.ttuhsoc.edu/som/InternalMedicine/>  
Amarillo Web: <http://www.ttuhsoc.edu/amarillo/SOM/IM/>

**Department of Internal Medicine  
Texas Tech University  
Health Sciences Center  
School of Medicine  
4801 Alberta Avenue  
Room 200A  
El Paso, TX 79905  
Phone: (915) 545-6640  
Fax: (806) 545-6635**

**Department of Internal Medicine  
Texas Tech University  
Health Sciences Center  
School of Medicine  
Suite 3106  
701 W. 5th Street  
Odessa, TX 79763  
Phone: (432) 335-5250  
Fax: (432) 335-5262**

El Paso Web: <http://www.ttuhsoc.edu/elpaso/SOM/IM/>  
Odessa Web: <http://www.ttuhsoc.edu/odessa/som/IM/>

## **DEPARTMENT OF MICROBIOLOGY & IMMUNOLOGY**

Professor & Chair: Ronald Kennedy, Ph.D.

### Lubbock

Professors: Chaffin, Fralick, Nairn, Rolfe, Straus

Associate Professors: Bright, Hamood, San Fransisco

Assistant Professor: Chiriva-Internati, Colmer-Hamood, Reilly

The Department of Microbiology and Immunology is a part of the Graduate School of Biomedical Sciences (GSBS) at the Texas Tech University Health Sciences Center. Our department is composed of outstanding faculty and excellent staff and has played many important roles in current research. Determined to encourage the academic and individual development of students and to promote the utmost degree of meaningful research, our faculty members guide students in their research studies throughout their degree programs. Graduate students pursuing master's and doctoral degrees have come to our department from all parts of North America and from around the globe including India, China, and Europe. We also accommodate an array of undergraduate students who participate in some of the research done in our laboratories. Since most of the research labs for the GSBS are in close proximity, we are presented with yet another opportunity to collaborate with fellow researchers and students. In combination with our department, Texas Tech University, and the Lubbock Community, we certainly provide incoming students with a diverse educational experience.

Required Course:

### **MEDICAL MICROBIOLOGY AND IMMUNOLOGY.**

**MMIC-6090-001. (Lubbock)** A study of the role of bacteria, fungi, viruses, and parasites in human infectious disease processes, stressing the interplay of the host and agent relationships.

## DEPARTMENT OF NEUROPSYCHIATRY & BEHAVIORAL SCIENCES

Professor & Chair: Randolph B. Schiffer, M.D.

### Lubbock

#### Psychiatry Division

Professors: Arredondo, Malek-Ahmadi, McGovern, Sutker, T. McMahon

Associate Professors: Bickley, Hanretta

Assistant Professor: Grant, Link, Robinson, Short, Stanley

#### Neurology Division

Professor: Hurst, Mitra (adjunct), Packard

Associate Professors: Blessum, Mumma (adjunct)

Assistant Professor: Hilsabeck, Lajar-Nanson, Rayburn

Research Associate: Drigalenko

Instructor: Rolan

### Amarillo

#### Psychiatry

Professor & Regional Chair: Barbara M. Rohland, M.D.

Professors: Bond

Associate Professors: Eagerton, Fagala, Jones (emeritus), Owens,

Assistant Professors: M. Jenkins

Instructor: M. Veeramachaneni

### El Paso

James A. Wilcox, D.O., Ph.D., Professor & Regional Chair (Interim)

Professors: Briones, Cuetter, Heller

Associate Professors: Aeschlbach, Aguirre-Hauchbaum, Brower, Giordano, Gregory, Kaim, Page, Quinones, Guerrero, Levine, Ramirez, Tarin-Godoy

Assistant Professors: Akhtar, Allen, Baida-Fragoso, Brandt, Brown, DeVargas, Fernandez, Julian, Ortez, Rivera, San Roman, Telles

Clinical Instructors: Aguirre, Cota, Jimenez

This department is one of the few integrated departments of neurology and psychiatry among the 127 Academic Health Centers in the United States. Departmental focus has been to lower the barriers between neurology and psychiatry, in clinical care programs, educational programs, and in research programs. Medical students are taught in an integrated neuropsychiatry format for the purposes of the integration of the behavioral sciences and other neurosciences. The psychiatry residency includes recurrent tutorials and didactic sessions on neuropsychiatric topics. By graduation, residents are expected to be able to manage cognitive loss syndromes and some movement disorders in addition to all of the usual general psychiatric developmental tasks. There is no neurology residency. There clinical research programs having to do with various aspects of Alzheimer's disease, and TTUHSC can take one post-residency fellow per year to work in these research programs. There are additional research programs in substance abuse section, in our movement disorders clinic, in headache, and in child programs.

Required Course:

**INTRODUCTION TO PSYCHIATRY. (6 weeks)**

**MPSY-6030-401. (Amarillo); MPSY-6030-801. (El Paso); MPSY-6030-001. (Lubbock)** This course includes an overview of normal emotional growth and development and the psychosocial aspects of illness, as well as an introduction to clinical psychopathology and therapies for psychiatric disorders.

Amarillo Division Senior Electives (MSIV):

**ASSESSING CHILDREN AND ADOLESCENTS: DIRUPTIVE AND AFFECTIVE PROBLEMS.**

**MPSY-806H-401. (Amarillo)** This elective focuses on common problems seen in children and adolescents, ways to assess for these problems, developing treatment plans and eclectic therapeutic intervention approaches. The student may accompany the psychologists as assessment opportunities occur on inpatient and outpatient services.

Prerequisite: Completion of Year III

Duration: 2 weeks or 4 weeks

Call: None

Students Accepted: 1 per month

Offered: Available all year

Faculty: Joe Garms, Ph.D.

## **EATING DISORDERS.**

**MPSY-806K-401. (Amarillo)** A bio-psycho-social approach to understanding and treating anorexia nervosa, bulimia nervosa, and compulsive overeating. For students interested in the field of psychiatry, behavioral health, preventive medicine or biological medicine, this elective is designed to provide a broad overview of eating disorders from the complexity of the causes to the multi-dimensional treatment considerations.

Prerequisite: Completion of Year III

Duration: 2 weeks or 4 weeks

Call: None

Students Accepted: 1 per month

Offered: Available all year

Faculty: Joyce ORear, Ed.D., Lynda M. Parker, M.D.

## **GROUP THERAPY TECHNIQUES.**

**MPSY-806O-401. (Amarillo)** This elective offers the opportunity to learn about how to start and run group therapy, as well as the dynamics of group interaction. The student will act as co-therapist with the supervisor for an on-going group and possibly do the screening process to start another group.

Prerequisite: Completion of Year III

Duration: 4 weeks

Call: None

Students Accepted: 1 per month

Offered: Available all year

Faculty: Lynda M. Parker, M.D.

## **TECHNIQUES OF PRACTICES OF PSYCHOTHERAPY.**

**MPSY-806R-401. (Amarillo)** This elective will introduce the student to various methods of psychotherapy: Individual therapy, group therapy, and family and marital therapy. By the end of the elective the student should have acquired some of the basic techniques of those modalities and be able to determine the appropriate use of each. The student should be comfortable selecting methods for each of these therapies.

Prerequisite: Completion of Year III

Duration: 4 weeks

Call: None

Students Accepted: 1 per month

Offered: Available all year

Faculty: Lynda M. Parker, M.D.

### **USING COMPUTERS IN MENTAL HEALTH.**

**MPSY-806T-401. (Amarillo)** This elective will cover student interests blending psychiatric topics and anticipated specialization. Possible focuses are computerized personality testing, computer-assisted counseling, using the Internet to obtain mental health information. Individualized problems are possible as long as they focus on psychiatric topics. As the opportunity arises, the student may interview-assess patients.

Prerequisite: Completion of Year III

Duration: 2 weeks or 4 weeks

Call: None

Students Accepted: 1 per month

Offered: Available all year

Faculty: Joe Garms, Ph.D.

### **WORKING WITH FAMILIES.**

**MPSY-806S-401. (Amarillo)** This elective will introduce the student to various forms of families seen in physicians offices. It will increase understanding of members who come from divorced, blended, single-parent, alcoholic and-or abusive families. By the end of the course students will have an understanding of the stresses which accompany the roles members play in these families.

Prerequisite: Completion of Year III

Duration: 2 weeks or 4 weeks

Call: None

Students Accepted: 1 per month

Offered: Available all year

Faculty: Joe Garms, Ph.D.

El Paso Division Senior Electives (MSIV):

### **CLINICAL NEUROSCIENCES IN SURGICAL NEUROLOGY AND CHILD NEUROLOGY.**

**MNEU-806G-801. (El Paso)** This elective in neurosurgery and child neurology may be arranged on an individual basis for any student.

### **FAMILY INTERVENTION TECHNIQUES.**

**MPSY-806L-801. (EI Paso)** This elective offers the opportunity to attend didactic seminars in family therapy and community assignment (under supervision) with well-known family therapists in the community. There is no consult service and 100% of the time is spent on the ward.

### **FORENSIC PSYCHIATRY.**

**MPSY-806N-801. (EI Paso)** 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.

### **HUMAN VALUES.**

**MPSY-806M-801. (EI Paso)** This elective offers the opportunity to review current work on spiritual values and its relationship with psychiatry. The reading material will be discussed in an evening seminar with other colleagues. There is no ward or clinic experience, no consultation service, and no call.

### **NEUROLOGY SENIOR CLERKSHIP.**

**MNEU-8061-801. (EI Paso)** This clerkship 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.

### **PSYCHIATRY SENIOR CLERKSHIP.**

**MPSY-806I 1-801. (EI Paso)** This senior clerkship 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.

## **SLEEP DISORDERS MEDICINE.**

**MPSY-806P-801. (El Paso)** This elective needs to be combined with another topic of interest during the 4-week 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.

Lubbock Division Senior Electives (MSIV):

## **ADULT INPATIENT PSYCHIATRY**

**MPSY-806A-001. (Lubbock)** 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.

## **CHILD/ADOLESCENT PSYCHIATRY.**

**MPSY-806D-001. (Lubbock)** This 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.

## **COMMUNITY SERVICES IN CHILD PSYCHIATRY.**

**MPSY-806J-801. (El Paso)** 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.

## **ELECTROPHYSIOLOGY.**

**MNEU-806H-001. (Lubbock)** Students will have the opportunity to enhance their clinical experience and knowledge in the areas of electroencephalography, electromyography and evoked potentials. Along with this they will have increased exposure to the evaluation and care of patients with epilepsy and neuromuscular disease.

**MONTFORD PRISON HOSPITAL ACUTE INPATIENT SERVICE.**

**MPSY-806G-001. (Lubbock)** This elective is designed to give the student an opportunity to work with patients within the psychiatric hospital prison setting suffering from severe or major psychiatric disorders. Emphasis will be placed on diagnosis and formation of treatment plans and treatment. The student will be exposed to treatment modalities provided in an inpatient setting. The student will work with an interdisciplinary team of clinicians and participate in selected therapies.

**MONTFORD PRISON HOSPITAL LONG-TERM SERVICE.**

**MPSY-806I-001. (Lubbock)** This elective is designed to give the student exposure to the psychiatric inmate patient in an extended care setting. Emphasis will be placed on formation of treatment plans and multidisciplinary treatment. The student will be exposed to aspects of long-term medication use and rehabilitative therapy.

**MONTFORD PRISON HOSPITAL PSYCHIATRIC TRIAGE/EMERGENCY SERVICE.**

**MPSY-806F-001. (Lubbock)** This elective is designed to acquaint the student with practice within the psychiatric hospital prison setting. There will be special emphasis on rapid assessment, differentiation of malingering and crisis management of severe emergent psychiatry inmate patients from the surrounding prison population. The student will also become familiar with psychological as well as psychiatric assessment.

**NEUROLOGY SENIOR CLERKSHIP.**

**MNEU- 8061 -001. (Lubbock)** This clerkship 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.

**PEDIATRIC NEUROLOGY.**

**MNEU-806B-001. (Lubbock)** (Not offered 2005-2006)

Students will round with the clinical team on the pediatric units, attend pediatric neurology clinics, and participate in a wide range of teaching activities. They will learn to do a competent neurological examination on infants and children. They will become familiar with electroencephalograms and imaging studies as applied to diagnosis and treatment of children.

**PSYCHIATRY SENIOR CLERKSHIP.**

**MPSY-80611-001. (Lubbock)** This senior clerkship 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.

| <b>Additional information may be obtained from:</b>   |  |
|---|--|
| <p><b>Department of Neuropsychiatry &amp; Behavioral Sciences</b><br/>Texas Tech University Health Sciences Center<br/>School of Medicine<br/>3601 4th Street<br/>MS 8143<br/>Lubbock, TX 79430<br/>Phone: (806) 743-2800<br/>Fax: (806) 743-4250</p>       | <p><b>Department of Psychiatry</b><br/>Texas Tech University Health Sciences Center<br/>School of Medicine<br/>1400 S. Coulter Street<br/>Amarillo, TX 79106<br/>Phone: (806) 354-5620<br/>Fax: (806) 351-3783</p> |
| <p>Lubbock Web: <a href="http://www.ttuhsoc.edu/som/Neuropsychiatry/newIndex">http://www.ttuhsoc.edu/som/Neuropsychiatry/newIndex</a><br/>Amarillo Web: <a href="http://www.ttuhsoc.edu/amarillo/SOM/PSY/">http://www.ttuhsoc.edu/amarillo/SOM/PSY/</a></p> |  |
| <p><b>Department of Neuropsychiatry</b><br/><b>Psychiatry Building</b><br/>Texas Tech University Health Sciences Center<br/>School of Medicine<br/>4800 Alberta Avenue<br/>El Paso, TX 79905<br/>Phone: (915) 545-6834<br/>Fax: (915) 545-6442</p>          |  |
| <p>El Paso Web: <a href="http://www.ttuhsoc.edu/el Paso/som/neuropsychiatry/">http://www.ttuhsoc.edu/el Paso/som/neuropsychiatry/</a></p>   |  |

## **DEPARTMENT OF OBSTETRICS AND GYNECOLOGY**

Professor & Chair: Arthur T. Evans, M.D.

### Lubbock

Professors: Blackwell, McGunegle, Owen, Prien, Welt

Associate Professors: Aronoff, Atkinson, Dorsett, Felton, Flood-Shaffer, Phillips

Assistant Professors: deRiese, Hales, Jabara, Richards, Sutkin, Thompson

### Amarillo

Professor & Regional Chair: James Van Hook, M.D.

Professor: Barclay

Associate Professors: Hodges, Jenkins, Kauffman, Robinson,

Assistant Professors: Holmes, Lund, Van Hook

Instructors: Baker, Gooch, Luck

Clinical Geneticist: Wilson

### El Paso

Professor & Regional Chair: Bahij Nuwayhid, M.D.

Professors: Harlass, Noble, Scragg

Associate Professors: J. Gonzalez, Greenberg, Sullivan

Assistant Professors: Brandl, Lyn, Mulla, Poehlmann, Vera

Instructors: Powers, Suarez

### Odessa

Professor & Regional Chair: Carol Bergquist, M.D.

Professors: Baldwin

Associate Professor: Kelley, Matthews, Reiner, Stringer, Vanderlee

Assistant Professor: Maguire, Rivera

Obstetrics and Gynecology deals with the woman as a primary care patient during her reproductive years as well as with those functional aberrations and diseases of the female generative tract occurring at any time during life. The course of study provides the student with a basic knowledge of the reproductive system, especially during pregnancy and childbirth. The student gains practical experience through the management of normal pregnancy, the evaluation of the status of the fetus in utero, the supervision of labor, the conduct of delivery, and management of complications.

Gynecology focuses on presenting the basic principles of gynecologic examination and the diagnosis and therapy of diseases of the female

reproductive system. This includes the physiology of menstruation, fertility, infertility, and fertility regulation, as well as gynecological disease-cytology, oncology, and pathology.

Required Course:

**CLERKSHIP IN OBSTETRICS-GYNECOLOGY. (6 Weeks)**

**MOBG-7094-401. (Amarillo); MOBG-7094-801. (El Paso);**

**MOBG-7094-001. (Lubbock)** 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.

Amarillo Division Senior Electives (MSIV):

**GENERAL OBSTETRICS AND GYNECOLOGY.**

**MOBG-806L-401. (Amarillo)** A General OB-GYN Rotation will be offered to the 4th year medical students wanting to participate in the continuity of care aspects of general OB-GYN. This student will be assigned to a resident-Faculty team of their choice. The student will be expected to participate as a member of the team seeing both obstetrical and gynecologic patients in the clinic, being present for surgical procedures in the operating room, participating in all activities in the labor and delivery unit, as well as the postpartum ward at the hospital. The student will participate in the teaching rounds that are held weekly, as well as the M&M Conference held on Friday morning. They will be expected to take in-house call 5 times during the month of their rotation. At the completion of their rotation, they will be expected to make a 30 minute presentation to residents and Faculty pertaining to some topic of interest to general OB-GYN.

Prerequisite: Completion of Year III

Duration: 4 weeks

Call: Required; call from home

Students Accepted: 1 per month

Offered: n/a

Faculty: Full Time and Clinical Faculty of TTUHSC

**OBSTETRICS AND GYNECOLOGY IMAGING.**

**MOBG-806M-401. (Amarillo)** This elective is designed to acquaint the 4th year medical students with clinical genetics and imaging modalities that are currently used frequently in the practice of obstetrics and gynecology. This will include taking histories and ultrasound, both obstetrical and gynecologic, and bone density scanning. The student will rotate through the various departments and will take advantage of these services that are offered through the Texas Tech Clinic, University Womens Health Center. They will also spend time with Dr. Overton

reviewing and interpreting bone density scans. There will be outside reading material that will be made available to the student, as well as any pertinent video tapes and CD ROMs. At the completion of the rotation, the student will be expected to make a 30-minute presentation to the residents and Faculty concerning some aspect of reproduction genetics and imaging.

Prerequisite: Completion of Year III

Duration: 4 weeks

Call: None

Students Accepted: 1 per month

Offered: Available all year

Faculty: Dr. Santolaya

El Paso Division Senior Electives (MSIV):

### **GENERAL OBSTETRICS-GYNECOLOGY.**

**MOBG-806G-801. (El Paso)** This elective includes clinical and hospital obstetrics and gynecology, family planning, and formal and informal teaching conferences.

### **OBSTETRICS/GYNECOLOGY SENIOR CLERKSHIP.**

**MOBG-8061-801. (El Paso)** This elective includes inpatient and outpatient obstetrics and gynecology, family planning, formal and informal conferences. Lectures and resident education conferences will be attended as well as discussions with the attending physicians and resident physicians on assigned reading topics.

### **PERINATAL MEDICINE.**

**MOBG-806H-801. (El Paso)** The student is a team member on the high-risk service. Activities include Genetics, Ultrasound, Labor and Delivery duties, Conferences, Clinics and Fetal Monitoring. A reading assignment with discussion, formal presentation with audiovisual support is required.

Lubbock Division Senior Electives (MSIV):

### **BENIGN GYNECOLOGY.**

**MOBG-806A-001. (Lubbock)** This elective offers further growth, improvement in skills, and broadening of knowledge in benign gynecologic problems, performing gynecologic procedures, and an introduction to office management. The student will participate in the pre-operative and post-operative management of patients (both in clinic and in the inpatient setting), in evaluating and treating patients (both in an emergency room and clinic settings), and in gynecologic surgery. Post-operative care will provide an opportunity to learn wound care, respiratory support, rehabilitation, and

resolution of post-operative ileus. In surgery, the student will learn suturing, knot tying, wound closure techniques, hysteroscopy, and dilation and curettage. The outpatient clinic training will include clinical medicine, as well as the "business of medicine." Assessment and treatment of vulvar/vaginal infections, STDs, and chronic pelvic pain will be stressed. Endometrial biopsy will be taught. Colposcopy procedures for cervical lesions will be covered. This elective is also applicable to students who plan a career in primary care specialties such as Internal Medicine or Family Medicine. Emphasis will be directed towards developing competency in pelvic examination, obtaining and interpreting Pap smears, diagnosing and treating vaginitis, prescribing hormone replacement therapy, and managing patients on oral contraception. The student will be expected to make rounds with the GYN team daily. Lectures and resident education conferences will be attended as well as discussion with the attending physician and resident physicians of the GYN team of assigned reading topics. The student will be expected to give a formal presentation during the rotation during the resident Wednesday afternoon didactic session on a topic to be determined by the student and the GYN team. The student's evaluation at the end of the elective will be based on evaluations by the members of the GYN team with whom they worked, as well as by the faculty and residents at the formal presentation. The student will be expected to function at the PGY-1 level.

## **GYNECOLOGIC ONCOLOGY & GYNECOLOGIC SURGERY.**

**MOBG-806C-001. (Lubbock)** 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. The student will be expected to give a formal presentation during the resident Wednesday afternoon didactic session on a topic to be determined by the student and the GYN oncology team. The student's evaluation at the end of the elective will be based on evaluations by the members of the GYN oncology team with whom they worked, as well as

by the faculty and residents at the formal presentation. The student will be expected to function at the PGY-1 level.

### **OBSTETRICS & GYNECOLOGY RESEARCH.**

**MOBG-806J-001. (Lubbock)** This elective is designed to teach medical students some fundamentals of research, as well as the opportunity to learn some laboratory skills, and hopefully to 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. The student will be expected to give a formal presentation on a topic to be determined by the student and the director of clinical research. The student's evaluation at the end of the elective will be based on the evaluation by the director of clinical research as well as by the faculty and residents at the formal presentation. The student will be expected to function at the PGY-1 level.

### **OBSTETRICS/GYNECOLOGY SENIOR CLERKSHIP.**

**MOBG-8061-001. (Lubbock)** This clerkship 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. The student will be expected to give a formal presentation on a topic to be determined by the student and the faculty. The student's evaluation at the end of the elective will be based on evaluations by the members of the department with whom they worked, as well as by the faculty and residents at the formal presentation. The student will be expected to function at the PGY-1 level.

### **OBSTETRICS/MATERNAL-FETAL MEDICINE.**

**MOBG-806B-001. (Lubbock)** 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. The student will be expected to give a formal presentation during the rotation to the department during the resident Wednesday afternoon didactic session on a topic to be determined by the student and the OB team. The student's evaluation at the end of the elective will be based on evaluations by the members of the OB team with whom they worked, as well as by the faculty and residents at the formal presentation. The student will be expected to function at the PGY-1 level.

### **REPRODUCTIVE ENDOCRINOLOGY/INFERTILITY.**

**MOBG-806E-001. (Lubbock)** Students will be given opportunities in the clinical care of patients with reproductive endocrine and infertility disorders and will improve the clinical knowledge base in 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. The student will be expected to give a formal presentation on a topic to be determined by the student and the REI team. The end of elective evaluation will be based on evaluations by members of the REI team as well as the faculty and residents at the formal presentation. The student will be expected to function at the PGY-1 level.

Odessa Division Senior Electives (MSIV):

### **GENERAL OBSTETRICS AND GYNECOLOGY.**

**MOBG-806G-240. (Odessa)** 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.

### **PERINATAL MEDICINE.**

**MOBG-806H-240. (Odessa)** 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.

**RURAL OBSTETRICS.**

**MOBG-806I-240. (Odessa)** 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.

| <b>Additional information may be obtained from:</b>  |  |
|--|--|
| <p><b>Department of Obstetrics &amp; Gynecology</b><br/> <b>Texas Tech University</b><br/> <b>Health Sciences Center</b><br/> <b>School of Medicine</b><br/> <b>3601 4th Street</b><br/> <b>MS 8340</b><br/> <b>Lubbock, TX 79430</b><br/> <b>Phone: (806) 743-2340</b><br/> <b>Fax: (806) 743-3121</b></p>      | <p><b>Department of Obstetrics &amp; Gynecology</b><br/> <b>Texas Tech University</b><br/> <b>Health Sciences Center</b><br/> <b>School of Medicine</b><br/> <b>1400 S. Coulter Street</b><br/> <b>3<sup>rd</sup> Floor</b><br/> <b>Amarillo, TX 79106</b><br/> <b>Phone: (806) 354-5650</b><br/> <b>Fax: (806) 351-5626</b></p> |
| <p>Lubbock Web: <a href="http://www.ttuhsoc.edu/som/OBGYN/">http://www.ttuhsoc.edu/som/OBGYN/</a><br/> Amarillo Web: <a href="http://www.ttuhsoc.edu/amarillo/SOM/OB/">http://www.ttuhsoc.edu/amarillo/SOM/OB/</a></p>   |  |
| <p><b>Department of Obstetrics &amp; Gynecology</b><br/> <b>Texas Tech University</b><br/> <b>Health Sciences Center</b><br/> <b>School of Medicine</b><br/> <b>4800 Alberta Avenue</b><br/> <b>Room 102</b><br/> <b>El Paso, TX 79905</b><br/> <b>Phone: (915) 545-6730</b><br/> <b>Fax: (915) 545-6982</b></p> | <p><b>Department of Internal Medicine</b><br/> <b>Texas Tech University</b><br/> <b>Health Sciences Center</b><br/> <b>School of Medicine</b><br/> <b>MS 3212</b><br/> <b>701 W. 5th Street</b><br/> <b>Odessa, TX 79763</b><br/> <b>Phone: (432) 335-5200</b><br/> <b>Fax: (432) 335-5240</b></p>                               |
| <p>El Paso Web: <a href="http://www.ttuhsoc.edu/elpaso/SOM/Obgyn/">http://www.ttuhsoc.edu/elpaso/SOM/Obgyn/</a><br/> Odessa Web: <a href="http://www.ttuhsoc.edu/odessa/som/obgyn/">http://www.ttuhsoc.edu/odessa/som/obgyn/</a></p>   |  |

## **DEPARTMENT OF OPHTHALMOLOGY AND VISUAL SCIENCES**

Professor & Chair: David L. McCartney, M.D.

### Lubbock

Professors: Reid, Wilson, Young

Associate Professor: S. Mathews

Assistant Professors: Dominguez, Eezzuduemhoi, Freedman, Graham, Gregg, Mitchell

Faculty Associate: T. Mathews, Nelson

Clinical Instructor: Crnic

### El Paso

Professor and Regional Chair: J. Manuel De La Rosa, M.D.

Assistant Professors: Blumenfeld, Ellman

Faculty Associates: Cox, Cunningham

The goals of the Department of Ophthalmology and Visual Sciences are to deliver quality patient care, to perform significant research, and to provide research and clinical training opportunities for future generations of physicians. The department provides educational experiences for medical students through participation in the Skills for Patient Assessment course in year two and elective rotations in years three and four.

The electrophysiology/visual psychophysics laboratory offers research opportunities to study the visual processing of adult and infant patients. The ocular cell biology laboratory is investigating factors involved in cell growth, glaucoma, and retinal degeneration. The goals of these programs are to understand the pathophysiological processes involved in various ocular disorders and to develop new therapeutic agents.

The department's fully accredited three year residency program admits three residents each year at the PGY-2 level. Depending upon funding, there may be opportunities for graduate study, postdoctoral, clinical and basic research fellowships, and research sabbaticals in the department.

Required Courses: None

Amarillo Division Senior Electives (MSIV):

**CLINICAL OPHTHALMOLOGY.**

**MOPH-806A-401. (Amarillo)** This elective will consist of an extensive exposure to clinical ophthalmology in a private practice setting. The student will be exposed to both acute and chronic eye disease and will also be exposed 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.

Prerequisite: Completion of Year III

Duration: n/a

Call: n/a

Students Accepted: 1 per month

Offered: Available all year; arrangements must be made 30 days in advance

Faculty: Avery Rush, M.D., Robert Gerald, M.D., John Murrell, M.D.

El Paso Division Senior Electives (MSIV):

**CLINICAL OPHTHALMOLOGY.**

**MOPH-806A-801. (El Paso)** This elective provides exposure to diagnosis and treatment of medical and surgical eye diseases in an ambulatory setting. The clinic physicians provide care for acute and chronic eye problems and the eye manifestations of systemic disease. Services do not include contact lens fitting or glasses prescriptions. Office surgery and intraocular surgery are included. There is an occasional inpatient consult. The experience can be tailored for someone with a casual interest in the visual system and how it relates to one's chosen field of interest. This elective can be an intense experience for someone planning to be an ophthalmologist. The clinic pace is breakneck, so successful candidates should master the elements of a basic eye examination before beginning the elective. Handouts are available upon request.

Lubbock Division Senior Electives (MSIV):

**CLINICAL OPHTHALMOLOGY.**

**MOPH-806A-001. (Lubbock)** This elective is enhanced by our active residency program, our large patient population, the departmental audio-visual library, and the extensive instrumentation available to students at our Thompson Hall site. For students unavailable for the Lubbock rotation, we offer clerkships with our clinical faculty in Amarillo or El Paso. Due to the highly competitive nature of our residency program, we recommend the Lubbock rotation for students interested in ophthalmology as a career. Also, since the early matching program occurs at the beginning of the senior spring semester, we recommend interested students take this elective as soon as possible. This elective introduces students to the specialty of

ophthalmology and teaches them the fundamental examination in an ambulatory outpatient clinic.

**OPHTHALMOLOGY RESEARCH.**

**MOPH-806C-001. (Lubbock)** 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.

| <b>Additional information may be obtained from:</b>   |   |
|---|---|
| <b>Department of Ophthalmology &amp; Visual Sciences<br/>Texas Tech University<br/>Health Sciences Center<br/>School of Medicine<br/>Drive of Champions &amp; Flint Avenue<br/>3<sup>rd</sup> Floor<br/>MS 7217<br/>Lubbock, TX 79430<br/>Phone: (806) 743-2400<br/>Fax: (806) 743-1782</b> | <b>Department of Internal Medicine<br/>Texas Tech University<br/>Health Sciences Center<br/>School of Medicine<br/>1400 Coulter<br/>Suite 4100<br/>Amarillo, TX 79106<br/>Phone: (806) 354-5404<br/>Fax: (806) 354-5743</b> |
| <b>Lubbock Web:</b><br><a href="http://www.ttuhsoc.edu/som/Neuropsychiatry/newIndex">http://www.ttuhsoc.edu/som/Neuropsychiatry/newIndex</a><br><b>Amarillo Web:</b> <a href="http://www.ttuhsoc.edu/amarillo/SOM/IM/">http://www.ttuhsoc.edu/amarillo/SOM/IM/</a>                          |   |
| <b>Division of Ophthalmology<br/>Texas Tech University<br/>Health Sciences Center<br/>School of Medicine<br/>4801 Alberta Avenue<br/>El Paso, TX 79905<br/>Phone: (915) 545-6999<br/>Fax: (915) 545-0950</b>  |   |
| <b>El Paso Web:</b> <a href="http://www.ttuhsoc.edu/el Paso/som/ophthalmology/">http://www.ttuhsoc.edu/el Paso/som/ophthalmology/</a>   |   |

## DEPARTMENT OF ORTHOPAEDIC SURGERY

Associate Professor and Chair: Robert Schutt, Jr., M.D.

Professor and Chair Emeritus: Eugene Dabezies, M.D.

Professor and Assistant Chairman: Herbert Janssen, M.Ed., Ph.D.

### Lubbock:

Professors: Dabezies, Hardy, Janssen

Associate Professors: Raducan, Rosenstein

Assistant Professors: Foust, Grimes, Pfeiffer, Zumwalt

Staff Physician: Wimpee

### El Paso:

Professor and Regional Chair: Miguel A. Pirela-Cruz, M.D.

Professors: Bagg,

Associate Professors:

Assistant Professors: Pacheco

The primary goals of the department are to teach medical students, train physicians in the specialty of orthopaedic surgery, provide quality medical care and further medical knowledge through clinical basic research.

The department is organized along subspecialty lines to provide expertise in various aspects of clinical orthopaedics. Specialty areas include trauma, sports medicine, children's orthopaedics, low back and spine problems, cerebral palsy, hand, foot, adult reconstruction, and total joint replacement. In Lubbock, a division of orthopaedic research provides research opportunities for students and residents.

Required Clerkships: none

Amarillo Division Senior Electives (MSIV):

### **ORTHOPAEDIC SURGERY.**

**MORS-806A-401. (Amarillo)** Students will be assigned to an orthopaedic Faculty member and will participate as a member of the orthopaedic 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 orthopaedic conferences. This elective is for those students interested in surgical specialties or an in-depth experience in orthopaedic surgery.

Prerequisite: Completion of Year III  
Duration: 2 weeks or 4 weeks  
Call: Required; frequency varies  
Students Accepted: 1 per preceptor  
Offered: Available all year

Faculty: Bill Barnhill, M.D., Richard McKay, M.D., Keith Bjork, M.D., Aubrey Smith, M.D., Mel Huebner, M.D., Olivia Morris, D.O.

El Paso Division Senior Electives (MSIV):

**INPATIENT ORTHOPAEDIC SURGERY.**

**MORS-806E-801. (El Paso)** Students will be assigned to one of the orthopaedic services (trauma, orthopaedics, or hand surgery) and will participate as a member of the orthopaedic team in inpatient and outpatient care, emergency room, and operating room activities. Students should perform history and physical examinations on all patients admitted to the service and present the work-ups to the junior resident 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 orthopaedic conferences. The orthopaedic experience is organized along subspecialty services, and students may spread their experience over these services. This elective is for students contemplating a career in orthopaedic surgery and desirable for those interested in surgical specialties or an in-depth experience in orthopaedic surgery.

**OUTPATIENT ORTHOPAEDICS.**

**MORS-806F-801. (El Paso)** Students will be assigned to the Orthopaedic Outpatient Clinic and will see patients with resident and faculty supervisors. Participation in emergency room call is expected during the day and is optional at night. The student should attend all orthopaedic conferences and is expected to make a presentation on a subject assigned by the faculty. The opportunity to learn casting and splinting techniques is available. This rotation is especially valuable for those students contemplating careers in primary care such as Family Medicine, Emergency Medicine, and Internal Medicine.

## **PHYSICAL MEDICINE AND REHABILITATION.**

**MORS-806C-801. (El Paso)** 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 which 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.

Lubbock Division Senior Electives (MSIV):

### **MUSCULOSKELETAL RESEARCH.**

**MORS-806B-001. (Lubbock)** Students with an interest in conducting musculoskeletal research will be assigned to one of the full time orthopaedic faculty members. Under the guidance of this faculty member (and possibly in cooperation with other members of the full time faculty and clinical faculty), the student will be required to directly participate in a research project. The nature and extent of this project is to be agreed upon prior to participation, and credit will not be given unless the agreed upon objectives are accomplished. If the project is completed during the elective, the student is expected to present a written and oral report to the orthopaedic residents and faculty. If it is agreed that the research cannot be completed in the allotted time, the student will be expected to present a report of the progress that has been accomplished during the elective. Minimum time for this elective is one month; recommended time is two months.

### **ORTHOPAEDIC SURGERY.**

**MORS-806A-001. (Lubbock)** The student will participate as a member of the orthopaedic team in inpatient and outpatient care, emergency room, and operating room activities. The student will perform history and physical examinations and present these work-ups to the faculty for evaluation. Each student will be expected to prepare a case report summary of an interesting case and present this at the teaching conference. Students will rotate through each subspecialty service so that there will be a broad educational experience.

## **PHYSICAL MEDICINE AND REHABILITATION.**

**MORS-806C-001. (Lubbock)** This elective is a clinical experience supplemented by independent study, conferences, and seminars related to the structure and functional characteristics of the human organism in relation to health, mobility, self-care, and other normal human activities.

**SPORTS MEDICINE.**

**MORS-806H-001. (Lubbock)** (Not currently available.)

This elective is designed to give senior medical students experience in the management of sports related injury and illness, emphasizing examination, diagnosis, and treatment of sports related injuries.

| <b>Additional information may be obtained from:</b>  |  |
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| <p><b>Department of Orthopaedic<br/>Surgery<br/>Texas Tech University<br/>Health Sciences Center<br/>School of Medicine<br/>3601 4<sup>th</sup> Street<br/>MS 9436<br/>Lubbock, TX 79430<br/>Phone: (806) 743-4263<br/>Fax: (806) 743-1305</b></p> | <p><b>Department of Orthopaedic<br/>Surgery<br/>Texas Tech University<br/>Health Sciences Center<br/>School of Medicine<br/>Basement Clinic Building<br/>4800 Alberta Avenue<br/>El Paso, TX 79905<br/>Phone: (915) 545-6750<br/>Fax: (915) 545-6704</b></p> |
| <p>Lubbock Web: <a href="http://www.ttuortho.com/">http://www.ttuortho.com/</a><br/>El Paso Web: <a href="http://www.ttuhschool.edu/elpaso/SOM/Orthopaedics/">http://www.ttuhschool.edu/elpaso/SOM/Orthopaedics/</a></p>                           |  |

## DEPARTMENT OF PATHOLOGY

Professor, Associate Dean for Clinical Affairs, & Chair: Dale M. Dunn, M.D.

### Lubbock

Professors: Bradley, B. Pence, D. Pence, Tran

Associate Professors: Graham, Wachtel

Assistant Professors: Bristol, Mamlok, Miller, Milovanovic, Natarajan, Oliver, Shrode, Shen

### El Paso

Associate Professor and Regional Chair: Darius Bowman, M.D.

Associate Professors: Kalamegham

Assistant Professors: Hakim, Rodriguez

Pathology, often called the bridge between the basic sciences and clinical medicine, is concerned with the study of the causes, progressive mechanisms and effects of disease. The teaching of laboratory medicine that is helpful in the above studies is correlated with the teaching of tissue changes that occur in the organ systems in disease processes.

The programs of the department are organized into three divisions: Anatomical pathology, Clinical pathology, and Experimental Pathophysiology. There is a fully accredited, combined Anatomic and Clinical Pathology Residency Program based in Lubbock. The program is designed to provide a strong foundation of basic and current knowledge upon which to build a career in the general practice of pathology or any of its subdisciplines. We intend to meet the educational needs of those who wish to pursue academic careers as well as those who plan to enter the practice of pathology in a community hospital setting. In addition, the pathology department is involved in interdepartmental teaching and participation whenever indicated.

Required Course:

### **PATHOLOGY.**

**MPAT-6070-001. (Lubbock)** General Pathology, Organ Systems Pathology, and Introduction to Clinical Pathology are covered. A study of the major categories of diseases and disease processes with an introduction to basic clinical laboratory procedures. Organ systems pathology is the study of specific disease states by organ system. Use of laboratory test interpretation in differential diagnosis is correlated with systems being studied where appropriate. During both semesters, small group sessions and interactive laboratories will be utilized as a teaching mechanism for students enrolled in the Pathology course.

Amarillo Division Senior Electives (MSIV):

**PATHOLOGY.**

**MPAT-806B-401. (Amarillo)** This elective is designed as an introduction to the general practice of pathology. The program will provide an opportunity for a medical student to evaluate diagnostic problems by means of radiology and to follow these patients through surgery, with a special emphasis on surgical pathology. Pathology findings at surgery are correlated with clinical history and radiology. Students will be expected to attend and occasionally present at conferences. Independent study and reading time will be included in each day.

Prerequisite: Completion of Year III

Duration: n/a

Call: n/a

Students Accepted: 1 per month

Offered: Available all year

Faculty: George English, M.D.-Baptist St. Anthony; Ralph Minnemyer, M.D.-Baptist St. Anthony; James Hamous, M.D.-Northwest Texas; Evaline Thompson, M.D.-Veterans Administration

El Paso Division Senior Electives (MSIV):

**ANATOMIC AND CLINICAL PATHOLOGY.**

**MPAT-806F-801. (El Paso)** (1) Core Content: 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. (2) Procedures skills: (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.

Lubbock Division Senior Electives (MSIV):

### **ANATOMIC PATHOLOGY.**

**MPAT-806C-001. (Lubbock)** (Not available in July.) 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 interservice conferences are encouraged. Call is not generally required, but it may enhance the autopsy and surgical pathology experiences.

### **CLINICAL PATHOLOGY: CORRELATION WITH DISEASE.**

**MPAT-806B-001. (Lubbock)** 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.

### **DIAGNOSTIC & CLINICAL PARASITOLOGY.**

**MPAT-806A-001. (Lubbock)** 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.

**Additional information may be obtained from:**

**Department of Pathology  
Texas Tech University  
Health Sciences Center  
School of Medicine  
3601 4<sup>th</sup> Street  
MS 8115  
Lubbock, TX 79430  
Phone: (806) 743-2155  
Fax: (806) 743-2117**

**Department of Pathology  
Texas Tech University  
Health Sciences Center  
School of Medicine  
Laboratory  
4800 Alberta Avenue  
El Paso, TX 79905  
Phone: (915) 545-6775  
Fax: (915) 521-7873**

Lubbock Web: <http://www.macmed.ttuhsoc.edu/faculty/>

El Paso Web: <http://www.ttuhsoc.edu/elpaso/SOM/Pathology/>

## DEPARTMENT OF PEDIATRICS

Professor & Chair: Richard Lampe, M.D.

### Lubbock:

Professors: Bourgeois, Guruaj, Joon, Park, Johnson, Tonk, Varma, Waagoner

Associate Professors: Bacchi, Cecalupo, Craig, Hurst, Iacuone, Lacey, Oblender, Perez

Assistant Professors: Bhatia, Camp, Colon, Douthit, Hall, Scott

Instructors: Johnson, Valdez

### Amarillo:

Professor & Regional Chair: Fredrick A. McCurdy, M.D., Ph.D., M.B.A.

Professors: Benjamin, Habersang, Johnson, Luckstead, Naqvi,

Associate Professors: Boger, Bridges, Chuachingco, Levy, Nirgiotis, Sheehan, Turner

Assistant Professors: Biskinis, Franklin, Green, Lopez, Regueira, Shum

Other Clinical Faculty: Guerra, Sanchez, Votta

### El Paso:

Professor & Regional Chair, Gilbert A. Handal, M.D.

Professors: de la Rosa, Jesurun, Schydlower

Associate Professors: Alva, Levin, Levine, Logvinoff, Plowden, Ting, Wilson

Assistant Professors: Canales, Casillas, Chamberlin, Christenson, Covarrubias,

Days, de Rosas, Doka, Fierro-Stevens, Guggedahl, Gutierrez, Isaac, Kokash, Leyva,

Lozano, Medina, Moorthy, Patel, Prieto, Radinovich, Rich, Roman, Santos,

Santoscoy, Schuster, Singh, Smith, Tapia

Clinical Instructors: Blanc, Cabrera, Garcia, Ramirez, Salloum, Shirsat,

Research Instructor: Leiner

### Odessa:

Associate Professor & Regional Chair: Robert E. Bennett, Jr., M.D.

Professors: Park, Talbert

Assistant Professors: Estep, Nieto,

The course of study in the Department of Pediatrics provides each student with a closely supervised learning experience in the care of infants and children, both ill and well. Students observe and participate in diagnostic and patient care activities concerned with premature and term newborns, growth and developmental processes, infectious diseases, and a variety of Pediatric subspecialties. There is emphasis on preventive as well as therapeutic medicine.

Electives for senior students are available in adolescent medicine, ambulatory/outreach pediatrics, cardiology, critical care, developmental and behavioral pediatrics, endocrinology, general inpatient pediatrics, gastroenterology, genetics, infectious diseases, neonatology, child neurology (at Lubbock); cardiology, developmental and behavioral pediatrics, endocrinology, general pediatrics, infectious diseases, neonatology, and pulmonology (at El Paso); developmental and behavioral pediatrics, general pediatrics, hematology/oncology, neonatology, and clinical pharmacology (at Amarillo); general pediatrics and neonatology (at Odessa).

Basic principles of physical diagnosis are taught during the sophomore year as an integral component of the Skills for Patient Assessment course.

Required Course:

**CLERKSHIP IN PEDIATRICS. (6 weeks)**

**MPED-7093-401. (Amarillo); MPED-7093-801. (El Paso); MPED-7093-001. (Lubbock)** During the clerkship students rotate through the pediatric inpatient, ambulatory care and new 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.

Amarillo Division Senior Electives (MSIV):

**ADOLESCENT MEDICINE.**

**MPED-806A-401. (Amarillo)** 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.

Prerequisite: Completion of Year III

Duration: 2 weeks or 4 weeks

Call: None

Students Accepted: 1 per month

Offered: Available all year; prior arrangement and approval by Dr. Sheehan is required

Faculty: Marita Sheehan, M.D.

### **AMBULATORY PEDIATRICS.**

**MPED-806B-401. (Amarillo)** 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.

Prerequisite: Completion of Year III

Duration: 4 weeks

Call: None

Students Accepted: 1 per month

Offered: Available all year, except December

Faculty: James Boger, M.D., Deogracias Pena, M.D.

### **BEHAVIORAL PEDIATRICS.**

**MPED-806C-401. (Amarillo)** This elective is designed to help students understand the behavioral aspects of a medical condition. Based upon the AAPs concept of the New Morbidity, the behavioral clerkship focuses on chronic conditions and the behaviors that impact upon treatment, compliance, and outcome (e.g., ADHD, diabetes, asthma, cancer, cerebral palsy, learning disabilities, prematurity, sickle cell disease, Down syndrome, blindness, deafness, or multiple impairments). Students will work with families, school personnel, and community agencies to develop long-term care. Attendance at school planning meetings, completion of documentation needed to access services (SSI, CIDC, and Special Education) as well as monitoring long-range treatment of chronic patients is presented. Included in this rotation is the follow-up of NICU graduates to monitor development and learning as well as PICU patients as they return to home, school, and community.

Prerequisite: Completion of Year III

Duration: 2 weeks or 4 weeks

Call: None

Students Accepted: 2 to 3 per month

Offered: Available all year

Faculty: Ed Hammer, Ph.D.

## **CLINICAL PHARMACOLOGY AND THERAPEUTICS.**

**MPED-806R-401. (Amarillo)** 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.

Prerequisite: Completion of Year III

Duration: 4 weeks

Call: n/a

Students Accepted: 2 per month

Offered: Available all year

Faculty: Tom Hale, Ph.D.

## **DEVELOPMENTAL PEDIATRICS.**

**MPED-806N-401. (Amarillo)** The student will evaluate patients in two ambulatory settings: Childrens Rehabilitation Center and Texas Tech Child Development Clinic. Mornings are spent at a community facility ( Childrens Rehab) and afternoons at Texas Tech. Concepts of prevention of disabilities, high-risk factors and long-term outcomes are emphasized. Morning patients are usually older patients with behavioral problems or learning disabilities. Afternoon patients have evolving handicapping conditions such as cerebral palsy, post-trauma, birth defects, etc. The objectives are to teach the profound impact of neuro-developmental disabilities on the child, family, educational system, community, and physician. Chronic handicapping conditions which jeopardize the quality of a childs life will be considered in view of legal and ethical issues which pediatricians must address.

Prerequisite: Completion of Year III

Duration: 4 weeks

Call: None

Students Accepted: 1 per month

Offered: Available all year

Faculty: Leora Andrew, M.D.

## **NEONATAL INTENSIVE CARE.**

**MPED-806O-401. (Amarillo)** This 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 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.

Prerequisite: Completion of Year III

Duration: 2 weeks or 4 weeks

Call: Required; every 4<sup>th</sup> night

Students Accepted: 2 per month

Offered: Available all year

Faculty: Evanthia Biskinis, M.D., Marion Myers, M.D., Joyce Chuachingco, M.D., Mubariz Naqvi, M.D.

## **PEDIATRIC ACTING INTERNSHIP.**

**MPED-806U-401. (Amarillo)** The student will work as a member of a team caring for patients admitted to the pediatric ward and will also participate in pediatric ambulatory clinics two afternoons per week. 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 will have an opportunity to perform procedures such as spinal taps, bladder taps, and IV placement. The student assumes the role of extern and will take call with the residents every fourth night. Supervision will be by a Faculty attending as well as a senior resident.

Prerequisite: Completion of Year III

Duration: 4 weeks

Call: Required; every 4<sup>th</sup> night

Students Accepted: 2 per month

Offered: Available all year

Faculty: TTUHSC Faculty

## **PEDIATRIC GASTROENTEROLOGY.**

**MPED-806M-401. (Amarillo)** The student will be exposed to the evaluation and management of common GI-Nutrition problems of childhood and adolescence. The service is both outpatient and inpatient. The outpatient consultation clinic is held four one-half days a week. The student will participate in inpatient consults, and will be expected to be available and be involved in the management of GI emergencies.

Prerequisite: Completion of Year III

Duration: 2 weeks or 4 weeks

Call: Not required, but student will be expected to be available for any GI emergencies

Students Accepted: 1 per month

Offered: Available all year; prior arrangement is required to ensure faculty availability

Faculty: A.O.K. Johnson, M.D.

## **PEDIATRIC HEMATOLOGY.**

**MPED-806R-401. (Amarillo)** The student will be exposed to all hematological problems: Anemia, Coagulation, and abnormal function of WBC. The student will evaluate and read blood smears, evaluate lab data, and understand the complication of Sickle Cell Anemia and Hemoglobinemia. The student will also have inpatient and outpatient responsibilities.

Prerequisite: Completion of Year III

Duration: 4 weeks

Call: None

Students Accepted: 1 per month

Offered: Available all year

Faculty: Tribhawan Vats, M.D., Ammar Morad, M.D.

## **PEDIATRIC INTENSIVE CARE.**

**MPED-806P-401. (Amarillo)** 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.

Prerequisite: Completion of Year III  
Duration: 4 weeks  
Call: Required; every 4<sup>th</sup> night to 5<sup>th</sup> night  
Students Accepted: 1 per month  
Offered: Available all year

Faculty: Rolf Habersang, M.D., Eric Levy, M.D.

### **PEDIATRIC NEPHROLOGY.**

**MPED-806S-401. (Amarillo)** 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 care givers, 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 either in the clinic or the hospital. The student will formulate evaluation and treatment plans in conjunction with the pediatric nephrologist. The student will be given ample opportunity to participate in all aspects of care of the child with renal problems.

Prerequisite: Completion of Year III  
Duration: 2 weeks or 4 weeks  
Call: None  
Students Accepted: 1 per month  
Offered: Available all year

Faculty: Deogracias Pena, M.D.

### **PEDIATRIC ONCOLOGY.**

**MPED-806Q-401. (Amarillo)** The student will be exposed to the various clinical disciplines that form the multi disciplinary team for diagnosis and management of children with cancer. Students will gain an understanding of: The psychosocial approach to families Pathophysiology Clinical and laboratory diagnosis and management of primary oncologic disease and complications Pharmacology and various chemotherapies The need and implementation of aggressive, supportive care for problems of infection and bleeding in the compromised host The principles of clinical research and data management The role of the physician in detection and co-management of children with cancer Students will have inpatient and outpatient responsibilities and will be expected to attend and present at various conferences.

Prerequisite: Completion of Year III  
Duration: 4 weeks

Call: None

Students Accepted: 1 per month

Offered: Available all year

Faculty: Tribhawan Vats, M.D., Ammar Morad, M.D.

El Paso Division Senior Electives (MSIV):

**ADOLESCENT MEDICINE.**

**MPED-806A-801. (El Paso)** This elective offers the fourth year medical student opportunities to become familiar with comprehensive health care of adolescent patients (age 12-21 years). There is particular emphasis on understanding the influences of physical and cognitive development on medical, behavioral and psychosocial conditions and health risk which affect this age group.

**ADVANCED NEONATOLOGY (NICU).**

**MPED-806O-801. (El Paso)** This elective offers exposure to a cross-section of neonatal pathology with emphasis on critical care. The student will function at the sub-internship level assuming responsibility for establishing the differential and primary diagnosis, management and follow-up care of the patient. The student will be closely supervised by the second or third year resident and attending neonatologist. It is expected that the student will become proficient in procedural skills and resuscitation of the newborn. A 45-minute presentation on a topic agreed upon by the neonatologist will be presented at the end of the rotation.

**AMBULATORY PEDIATRICS.**

**MPED-806B-801. (El Paso)** Most of pediatric medicine is practiced on an outpatient basis. There are innumerable medical, family, social and emotional problems that must be dealt with on a daily basis. History-taking skills are extremely important to determine appropriate diagnostic and therapeutic intervention. The medical student will function as an extern and see patients under the supervision of faculty members and occasionally the residents. The students will perform both routine well-child visits and office visits for acute and chronic disease. Twenty hours a week will be spent in the general pediatric clinic to accomplish this. An additional twenty hours a week will be spent in the specialty clinics in allergy, behavioral pediatrics, cardiology, hematology, high risk, neurology, pulmonology, and the comprehensive care of chronic conditions. Each faculty member with whom the student works will submit an evaluation of the student based on the presentation of history and physical exams, seminar presentation to the residents and attending faculty members, and student-staff, student-patient, and student-parent relationships.

### **DEVELOPMENTAL AND BEHAVIORAL PEDIATRICS.**

**MPED-806N-801. (EI Paso)** The medical student will become familiar with normal child development and normal child behavior. In addition, the student will participate in the evaluation of children with developmental delays (language and motor), learning disabilities, attention deficit hyperactivity disorder, and oppositional defiant disorder. The student will also attend high-risk follow-up clinic, in which former premature infants are evaluated. At the end of the four weeks, the student will be required to give a 30-minute presentation on some topic in developmental or behavioral pediatrics. This presentation will be prepared with the attending physician's guidance.

### **GENERAL PEDIATRIC EXTERNSHIP.**

**MPED-806Z-801. (EI Paso)** The general clinic serves as the chief setting for primary care and general pediatric resident/student education. The student is exposed to a wide range of issues in treating a diverse population. Emphasis is placed on the development of clinical skills and differential diagnosis. In order to foster the concept of continuity of care and to help the student understand how pediatric diseases respond to more intensive treatment, this elective in general pediatrics is offered. Patients seen in the subspecialty clinic are referred from the general pediatric clinic as well as directly by private physicians in the community. Senior students spend half of their one-month elective in the general clinic and half in the subspecialty clinic. The student will be responsible for a written history/physical assessment, and plan to be entered into the hospital chart on each patient the student admits. The student will also be responsible, with resident and faculty supervision, for the day-to-day management of patients. The student will learn how to manage general pediatrics problems, how to become more proficient in work-ups, and how to organize information and present patients at morning report and on daily rounds.

### **INPATIENT PEDIATRICS.**

**MPED-806I-801. (EI Paso)** 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.

### **PEDIATRIC CARDIOLOGY.**

**MPED-806J-801. (EI Paso)** The student will be familiarized with pediatric cardiology outpatients, will see inpatient consultation and will attend cardiac catheterization at R. E. Thomason General Hospital and other area hospitals. Time will be provided to interpret and discuss heart sounds, electrocardiograms and echocardiograms. Non-invasive diagnosis will be stressed.

### **PEDIATRIC ENDOCRINOLOGY.**

**MPED-806D-801. (EI Paso)** 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.

### **PEDIATRIC ENDOCRINOLOGY -- DIABETES CAMP.**

**MPED-806E-801. (EI Paso)** 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.

### **PEDIATRIC INFECTIOUS DISEASE.**

**MPED-806G-801. (EI Paso)** The objective of this elective is to familiarize the student with the clinical and microbiologic approach to common pediatric infectious disease problems. On weekdays the student will attend morning report and didactic lecture. Under the direction of the infectious disease supervisor, students will visit and evaluate any infectious disease patient on the pediatric service or on other services when consultation is requested. Upon completion of this evaluation, the student will review the case with one of the infectious disease physicians who will make rounds with the student. Bacteriologic rounds will be held in the R. E. Thomason General Hospital microbiology laboratory. The student will spend most of the afternoons researching the literature related to the case discussed, completing assigned readings, and developing a paper that will be presented in the resident's meetings. Several afternoons a week the student will discuss assigned reading and the progress of the student assignment.

### **PEDIATRIC PULMONOLOGY.**

**MPED-806X-801. (EI Paso)** 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 pediatric pulmonary problems encountered at the general pediatric inpatient facility, as well as those referred to a subspecialty outpatient chest clinic and cystic fibrosis clinic complemented by occasional consultation on critically ill children.

### **PEDIATRICS SENIOR CLERKSHIP.**

**MPED-8061-801. (EI Paso)** The purpose of this senior clerkship 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.

### **PEDIATRIC SUB-INTERNSHIP.**

**MPED-806V-801. (EI Paso)** 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 will take call with the residents.

Lubbock Division Senior Electives (MSIV):

### **ADOLESCENT MEDICINE.**

**MPED-806A-001. (Lubbock)** This elective is designed to provide more comprehensive experience with the problems encountered during the adolescent years. It will involve participation in the following areas: General Adolescent Clinic, Adolescent Diabetes Clinic, Adolescent Gynecology Clinic (Ob/Gyn Department), Chemical Dependency and Substance Abuse Program (St. Mary Hospital), Sports Medicine Program (Orthopaedic Surgery Department), Adolescent Psychiatry Clinic (Neuropsychiatry Department), C.A.R.E. Center (Child Advocacy Research & Education), Rural School Based Health Clinic (Hart, Texas), and inpatient experience in patients with suicide attempt, diabetes, sexual abuse and other chronic illnesses. The educational material on the related subjects will be reviewed with the student.

## **CHILD ABUSE AND NEGLECT.**

**MPED-806K-001. (Lubbock)** This elective is designed to prepare future clinicians to successfully interview in cases of suspected child abuse and neglect. Learning sessions will be provided on the following topics: Physical abuse and neglect, Sexual abuse, Multidisciplinary work, and Expert medical testimony. Students will be placed with professional mentors within the Lubbock community from the District Attorney's Office, Lubbock Police Department, and Children's Protective Services. The student will also receive on-site training at the C.A.R.E. Center at Thompson Hall during clinic hours. When the situation allows, the student will be permitted to participate during forensic evaluations.

## **CLINICAL NEONATOLOGY (NICU).**

**MPED-806H-001. (Lubbock)** Students will participate in the delivery of neonatal care in a modern, Level III 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. Lecture experience consists of review of specific neonatal topics plus attendance at the regularly scheduled conferences of the Department of Pediatrics teaching program.

## **GENETICS.**

**MPED-806F-001. (Lubbock)** This elective offers students the opportunity to participate in all aspects of a comprehensive clinical genetics program including dysmorphology consultations, genetic counseling sessions, prenatal testing, and laboratory testing. Time will be about equally divided between clinical and laboratory settings. Most students are encouraged to initiate a short clinical project or family study of special interest.

## **INPATIENT PEDIATRICS.**

**MPED-806I-001. (Lubbock)** This elective provides an individualized problem-oriented rotation for the student, to help him/her 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 his 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. There will be continuous supervision by the faculty attending and the senior resident in charge of his/her performance.

### **PEDIATRIC CARDIOLOGY.**

**MPED-806J-001. (Lubbock)** Students will be provided ample opportunity 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.

### **PEDIATRIC CRITICAL MEDICINE (PICU).**

**MPED-806P-001. (Lubbock)** Students will be involved in the day-to-day delivery of care in the Pediatric Intensive Care Unit. Included will be taking histories and performing physical examinations on critically ill infants and children. Performing procedures such as central venous lines, arterial lines, chest tubes, and intubations may be included. Experience will be gained in both the medical and surgical aspects of critical care medicine.

### **PEDIATRICS ENDOCRINOLOGY/METABOLISM.**

**MPED-806D-001. (Lubbock)** This elective will stress the application of basic scientific information to the diagnosis and treatment of endocrine and metabolic diseases of children. It will involve participation in Endocrine Clinic, inpatient evaluations and consultations, and a monthly multidisciplinary endocrine conference. Independent reading will be an important component of this rotation. Opportunities for research projects may be available if desired. During the month of July, a week long camp is held for children with diabetes. This could be taken as a separate assignment or can be incorporated into the elective. The following areas will be covered during the elective: Common endocrine function tests (procedure, interpretation), Endocrine aspects of growth, Thyroid disorders, Adrenal disorders, Mineral metabolism (Ca & P, Vitamin D), Carbohydrate metabolism (juvenile diabetes mellitus, hypoglycemia), Hypothalamic-pituitary disorders, Normal and abnormal sexual development, Endocrine genetics, and Obesity.

### **PEDIATRIC ENDOCRINOLOGY/METABOLISM: DIABETES CAMP.**

**MPED-806E-001. (Lubbock)** This elective offers a one-week experience at a summer camp for children with diabetes. Students will receive a practical, hands-on opportunity to learn about the day-to-day management of diabetes mellitus in children. Duties include supervision and monitoring of daily blood sugar testing and insulin injections, management of hypoglycemia, etc. Pre-camp training and reading assignments will be provided. Daily meetings during the camp will provide some additional educational opportunities.

### **PEDIATRIC GASTROENTEROLOGY.**

**MPED-806M-001. (Lubbock)** 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.

### **PEDIATRIC INFECTIOUS DISEASES.**

**MPED-806G-001. (Lubbock)** This elective permits the student to participate in the diagnosis and management of a wide array of pediatric infectious diseases. 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 SENIOR AMBULATORY EXPERIENCE.**

**MPED-8061-001. (Lubbock)** The purpose of this senior clerkship 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.

### **PEDIATRIC SUB-INTERNSHIP.**

**MPED-806V-001. (Lubbock)** 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 will take call with the residents.

Odessa Division Senior Electives (MSIV):

### **GENERAL PEDIATRICS.**

**MPED-806B-240. (Odessa)** The student will work as a member of the team providing health care for sick infants and children in the inpatient and outpatient facility. The student will have opportunity to learn and to perform procedures and will participate in related conferences and rounds.

### **NEONATAL MEDICINE (NICU).**

**MPED-806H-240. (Odessa)** The student will care for high-risk newborns under the direct supervision of a neonatology attending physician in a modern, tertiary-level newborn intensive care unit staffed by neonatal nurse practitioners and residents. Research in high frequency ventilation has been ongoing since 1987, and TTUHSC Odessa has acquired a national and international reputation in this area. Along with experience in high frequency ventilation, the student will receive a grounding in the approach to a high-risk newborn, including procedures such as intubation and umbilical vessel catheterization.

### **PEDIATRIC CRITICAL CARE (PICU).**

**MPED-806P-240. (Odessa)** The student will spend at least one month being part of a team providing critical care consult and services to children of various ages, in a variety of settings including the intensive care unit, the pediatric floor, the emergency department and infrequently in the outpatient facility. The student will learn the approach to managing respiratory failure, circulatory failure and other life threatening critical care issues. The student will also familiarize with invasive and non-invasive modes of patient monitoring and respiratory support. The student will have opportunity to interact with and address the concerns of the families of critically ill children. Night call will be required every 4th night.

**Additional information may be obtained from:**

**Department of Pediatrics  
Texas Tech University  
Health Sciences Center  
School of Medicine  
3601 4th Street  
MS 9406  
Lubbock, TX 79430  
Phone: (806) 743-2244  
Fax: (806) 743-4218**

**Department of Pediatrics  
Texas Tech University  
Health Sciences Center  
School of Medicine  
1400 S. Coulter Street  
Amarillo, TX 79106  
Phone: (806) 354-5434  
Fax: (806) 351-5536**

Lubbock Web: <http://www.ttuhsoc.edu/som/Pediatrics/index.html>  
Amarillo Web: <http://www.ttuhsoc.edu/amarillo/SOM/PED/>

**Department of Pediatrics  
Texas Tech University  
Health Sciences Center  
School of Medicine  
4800 Alberta Avenue  
El Paso, TX 79905  
Phone: (915) 545-6785  
Fax: (915) 545-6976**

**Department of Pediatrics  
Texas Tech University  
Health Sciences Center  
School of Medicine  
Suite 3174  
701 W. 5th Street  
Odessa, TX 79763  
Phone: (432) 335-5270  
Fax: (432) 335-5354**

El Paso Web: <http://www.ttuhsoc.edu/elpaso/SOM/Pediatrics/>  
Odessa Web: <http://www.ttuhsoc.edu/odessa/som/peds/>

## **DEPARTMENT OF PHARMACOLOGY & NEUROSCIENCE**

Professor & Chair: Reid L. Norman, Ph.D.

Professors: Casner, Grammas, Lombardini, H. Strahlendorf, Syapin, Tenner, Young

Associate Professors; Blanton, R. Dickerson, Freeman, Hale, K. McMahon, Roghani

Assistant Professors: Frame, Popp

Pharmacology is the biomedical science concerned with the interactions of chemicals with living systems and their constituent parts. Neuroscience is the study of the structure and function of the brain and nervous system. The emphasis in the Doctor of Medicine program is on the study of structure/function of the brain and nervous system as well to chemicals in their roles as therapeutic agents used in the prevention, alleviation, treatment, or diagnosis of human disease, and as toxic agents producing undesirable effects. Clinical relevance is stressed both in the lecture material and in a complementary series of clinical conferences.

Required Courses:

### **MEDICAL PHARMACOLOGY.**

**MPHA-6060-001. (Lubbock)** A study of chemicals in their role as therapeutic agents used in the prevention, alleviation, treatment, or diagnosis of human disease, and as toxic agents producing undesirable effects. This course covers both Fall and Spring semesters.

### **INTEGRATION AND ANALYSIS.**

**MIDS-6010-001. (Lubbock)** This course is designed to integrate the basic sciences learned in Years 1 and 2 into clinically relevant topics by students actively working on clinical questions. It is an interdepartmental course in which students work in small groups to analyze case scenario problems and formulate logical, science-based arguments. Using the information provided with the case.

Elective Courses:

**PHARMACOLOGY INDEPENDENT STUDY.**

**MPHA-806B-001. (Lubbock)** An independent study elective is offered in Lubbock and Amarillo for students desiring an in-depth study of a specific area in basic or clinical pharmacology under the guidance of a faculty member. The purpose of this study elective is to allow the student to comprehend more fully the rational basis for drug selection and use, and to appreciate the potential hazards associated with drug therapy in one (or more) of the following areas: Autonomic, Cardiovascular, Endocrine, Neurochemical, Biochemical, or Molecular Pharmacology; Pharmacokinetics; Chemotherapy; Neuropharmacology; or Neuropsychopharmacology.

**PHARMACOLOGY RESEARCH.**

**MPHA-806A-001. (Lubbock)** A laboratory research elective is offered in Lubbock for medical students desiring a research experience in pharmacology. It is intended that the student will perform laboratory research under supervision of an experienced faculty investigator in one (or more) of the following areas: Autonomic, Cardiovascular, Endocrine, Neurochemical, Biochemical, or Molecular Pharmacology; Alcohol Toxicity; Neuropharmacology; or Neuropsychopharmacology.

**Additional information may be obtained from:**

**Department of Pharmacology & Neuroscience  
Texas Tech University Health Sciences Center  
3601 4<sup>th</sup> Street, MS 6592  
Lubbock, Texas 79430  
Phone: (806) 743-2425  
Fax: (806) 743-2744**

**Web: <http://www.ttuhsc.edu/som/Pharmacology/default.htm>**

## DEPARTMENT OF PHYSIOLOGY

Professor & Interim Chair: Richard D. Nathan, Ph.D.

### Lubbock:

Professors: Dunin-Barkowski, (visiting) Janssen, Laski, Lutherer, McComb, Pressley, Strahlendorf, Wesson

Arnett Professor: Kurtzman,

Murray Professor: Orem

Associate Professors: Escobar, Fowler, Gyorke, Jumper, Laski, Martinez-Zaguilan, Prabhakar, Prien, Sarvazyan (adjunct), Williams

Instructors: Duran, Sennoune

The Department of Physiology in the School of Medicine offers educational and research programs for students working for professional degrees in medicine and related health sciences, and advanced degrees in physiology.

Required Courses: This department is currently involved in multi-disciplinary education with other departments for the 1<sup>st</sup> year medical students.

Senior Electives (MSIV):

### **RESEARCH IN CARDIOVASCULAR SCIENCES.**

**MPHY-806A-001. (Lubbock)** Medical students will be able to fully participate in bench research, journal clubs and seminars under the mentorship of those faculty with active research programs in cardiovascular physiology.

### **RESEARCH IN MEMBRANE TRANSPORT/ENDOCRINOLOGY.**

**MPHY-806B-001. (Lubbock)** Medical students will be able to fully participate in bench research, journal clubs and seminars under the mentorship of those faculty with active research programs in membrane transport/endocrinology.

### **RESEARCH IN NEUROPHYSIOLOGY.**

**MPHY-806C-001. (Lubbock)** Medical students will be able to fully participate in bench research, journal clubs and seminars under the mentorship of those faculty with active research programs in neurophysiology.

**RESEARCH IN RENAL PHYSIOLOGY.**

**MPHY-806D-001. (Lubbock)** Medical students will be able to fully participate in bench research, journal clubs and seminars under the mentorship of those faculty with active research programs in renal physiology.

**Additional information may be obtained from:**

**Department of Physiology  
Texas Tech University Health Sciences Center  
3601 4<sup>th</sup> Street, MS 6551  
Lubbock, Texas 79430  
Phone: (806) 743-2520  
Fax: (806) 743-1512**

**Web: <http://www.ttuhsc.edu/SOM/physiology/index.shtml>**

## DEPARTMENT OF RADIOLOGY

Professor & Interim Chairman: Arvin E. Robinson, M.D., M.P.H.

### El Paso

Professors: Mark, Uhrig

Assistant Professors: Naylor

Visiting Professor: Calleros, Ramos

The Department of Radiology is actively engaged in undergraduate and postgraduate education. Radiology faculty presentations are given in Anatomy and are a regular part of the course in Pathology and the Introduction to Clinical Medicine. A one-month elective is offered to the undergraduate medical students in their clinical years.

The Department of Radiology includes the following major sub-specialty areas, diagnostic ultrasound, computerized tomography, magnetic resonance, mammography, nuclear medicine (SPECT), angiography, interventional radiology.

### **Required Courses: none**

Amarillo Division Senior Electives (MSIV):

### **RADIOLOGY.**

**MRAD-806A-401. (Amarillo)** The student will observe and participate in all phases of radiologic 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 study purposes, and the student is expected to spend a portion of the time reviewing this file. Attendance at intra-departmental conferences is expected.

Prerequisite: Completion of Year III

Duration: n/a

Call: n/a

Students Accepted: 2 per month

Offered: Available all year

Faculty: Gayle Bickers, M.D.-Northwest Texas; John Andrew, M.D.-Baptist St. Anthony; John Guest, M.D.-Baptist St. Anthony

El Paso Division Senior Electives (MSIV):

**RADIOLOGY.**

**MRAD-806A-801. (El Paso)** In this elective the student will observe and participate in all phases of diagnostic imaging, including plain film interpretation, fluoroscopy, special procedures, nuclear medicine, diagnostic ultrasound, computed tomography, magnetic resonance imaging. Learning aids, including teaching files are provided.

**Additional information may be obtained from:**

**Department of Radiology  
Texas Tech University Health Sciences Center  
1<sup>st</sup> Floor Thomason Building  
4800 Alberta Avenue  
El Paso, Texas 79905  
Phone: (915) 545-6845  
Fax: (915) 545-6607**

**Web: <http://www.ttuhscl.edu/elpaso/SOM/Radiology>**

## **DEPARTMENT OF SURGERY**

Professor & Chair: John Griswold, M.D.

### Amarillo:

Professor & Regional Chariman: Dennis B. Dove, M.D., F.A.C.S.

Professors: Arredondo, Hale, Udekwu  
Associate Professors: Franklin, Rodriguez  
Assistant Professors: Galvan

### El Paso:

Associate Professor & Regional Chairman: Edward C. Saltzstein, M.D.

Professors: Dougherty  
Associate Professors: Miller, Saltzstein  
Assistant Professors: McLean, Rhodes

### Lubbock:

Professor: deReise, Mittermeyer  
Associate Professor: Frezza  
Assistant Professor: Cordero, Marchbanks, Warren,  
Instructor: Banister, Nguyen

Departmental clinical opportunities that include:

- A state-of-the-art Level I Trauma Center serving a huge (1.9 million) rural population.
- One of the largest regionally verified/certified Burn Centers with approximately 300 major burns admitted per year.
- A well-recognized Division of Vascular Surgery, a national leader in cutting-edge endovascular techniques.
- ENT Division, has the largest head and neck case volume in the region, providing general surgery residents with an endless amount of experience in thyroid, parathyroid, head and neck cancer/radial neck procedures, and even parotidectomy.
- A very aggressive general surgery and pediatric surgery program in advanced laparoscopy.
- A neurosurgical division and urologic division that provides superb expertise in all super specialty areas for these disciplines with no competition from urology or neurosurgical residents.

The department is very active in basic and clinical research, nationally known in the areas of blood substitute research, inflammatory mediators such as bradykinin, and quorum sensing in burn wound pseudomonas infection. The clinical trials office is very active in all forms of clinical trials research especially focusing in the areas of trauma, critical care, and burns.

Required Course:

**CLERKSHIP IN GENERAL SURGERY. (12 weeks)**

**MSUR-7091-401. (Amarillo); MSUR-7091-801. (El Paso); MSUR-7091-001. (Lubbock)** An introduction to the pathophysiology of surgical diseases and the principles and techniques used in their diagnosis and management. Course includes participation in pre- and post-operative patient care, operating room and clinic experience as a member of a team of the surgical faculty.

Amarillo Division Senior Electives (MSIV):

**CARDIOVASCULAR-THORACIC SURGERY.**

**MSUR-806B-401. (Amarillo)** The student will observe and participate in all phases of radiologic 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 study purposes, and the student is expected to spend a portion of the time reviewing this file. Attendance at intra-departmental conferences is expected.

Prerequisite: Completion of Year III

Duration: 2 weeks or 4 weeks

Call: None

Students Accepted: 1 per month

Offered: Available all year

Faculty: Masoud Alzeerah, M.D., William Guynes, Jr., M.D., Robert Sutherland, M.D., Robert Taylor, M.D.

**EMERGENCY MEDICINE.**

**MSUR-806C-401. (Amarillo)** This 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.

Prerequisite: Completion of Year III  
Duration: 2 weeks or 4 weeks  
Call: Required; frequency varies  
Students Accepted: 1 per month  
Offered: Available all year

Faculty: Owen Grossman, M.D.-Baptist St. Anthony

### **GENERAL SURGERY SUB-INTERNSHIP.**

**MSUR-806K-401. (Amarillo)** The student will serve as an A extern on the surgical service of the Veterans Administration Medical Center of Baptist St. Anthony. As an Aextern or acting intern member of a team which includes Faculty members, residents, and junior clerks, the fourth year student will participate in the care of surgical patients in the emergency room, surgical wards, operating room, and clinic. Pre--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.

Prerequisite: Completion of Year III  
Duration: 4 weeks  
Call: Required; frequency varies  
Students Accepted: 2 per month  
Offered: Available all year

Faculty: BSA-NWTH - Dennis Dove, M.D., David McNeir, M.D., Dan Galvan, M.D., Mark Arredondo, M.D.; Veterans Administration - Mario Feola, M.D.

### **NEUROSURGERY.**

**MSUR-806L-401. (Amarillo)** The student will work as a preceptor with one of the clinical Faculty surgeons listed. Clinical material is available in the affiliated hospitals: Baptist St. Anthony and Northwest Texas.

Prerequisite: Completion of Year III  
Duration: 2 weeks or 4 weeks  
Call: Required; frequency varies  
Students Accepted: 1 per month  
Offered: Available all year

Faculty: Jeff Cone, M.D., Walter Piskun, M.D., Wayne Paullus, M.D., Charles Rimmer, M.D., Bill Barister, M.D.

## **OTORHINOLARYNOLOGY (ent).**

**MSUR-806M-401. (Amarillo)** The student will work as a preceptor with one of the clinical Faculty surgeons listed. Clinical material is available in the affiliated hospitals: Baptist St. Anthony and Northwest Texas.

Prerequisite: Completion of Year III

Duration: 4 weeks

Call: Required; frequency varies

Students Accepted: 1 per month

Offered: Available all year

Faculty: Michael Guttenplan, M.D., Geoffrey Wright, M.D.

## **PLASTIC SURGERY.**

**MSUR-806F-401. (Amarillo)** 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.

Prerequisite: Completion of Year III

Duration: 2 weeks or 4 weeks

Call: Required; frequency varies

Students Accepted: 1 per month

Offered: Available all year

Faculty: Louise Ferland, M.D., John Kelleher, M.D., Richard High, M.D., Jeff Moore, M.D., Mary Ann Piskun, M.D.

## **SURGICAL CRITICAL CARE.**

**MSUR-806T-401. (Amarillo)** By participating in the initial assessment and subsequent management of surgical patients requiring Critical Care, the 4th year student will recognize the abnormalities in the physiologic status of these patients, the pathology which has defined these physiologic derangements, and by direct participation in the development of management strategies gain an appreciation for the complexity of interaction necessary to care for these patients. Patients admitted to the SICU by Texas Tech surgical Faculty will be assigned to the 4th year medical student patients based on severity of presenting illnesses. Evaluation and subsequent care of these patients will be provided by this student under the direct supervision of the assigned surgical Faculty member. The student

participating on this Surgical Critical Care elective will interact with the 4th year student completing the Surgical Sub-Internship and direct assignment of 3rd year clerks in the assignment and follow of all Texas Tech surgery patients in the SICU. All SICU patients will be examined and a note written by the assigned student prior to morning Attending Rounds, which will be conducted daily. The 4th year student on this elective may choose to participate in daily ward rounds, but in conjunction with the attending will have the responsibility of facilitating all subsequent daily care for SICU patients as defined during A.M. rounds. This student will make evening check out rounds with the assigned attending, and will remain on call from home for these ICU patients as directed by the on call attending. The 4th year student completing this elective will have preference in the performance of all procedures to be performed in the SICU on patients to whom he-she is assigned.

Prerequisite: Completion of Year III

Duration: 4 weeks

Call: n/a

Students Accepted: n/a

Offered: Available all year

Faculty: Dennis B. Dove, M.D., Dan A. Galvan, M.D., David G. McNeir, M.D.

## **SURGICAL ONCOLOGY.**

**MSUR-806S-401. (Amarillo)** 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 patients 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

Practice. The students will attend the Tumor Board conferences at both Harrington Cancer Center-BSA and the VAMC.

Prerequisite: Completion of Year III

Duration: 4 weeks

Call: n/a

Students Accepted: n/a

Offered: Available all year

Faculty: Mark A. Arredondo, M.D.

## **UROLOGY.**

**MSUR-806I-401. (Amarillo)** The student will work as a preceptor with one of the clinical Faculty surgeons listed. Clinical material is available in the affiliated hospitals: Baptist St. Anthony, Northwest Texas, and the Veterans Administration Medical Center.

Prerequisite: Completion of Year III

Duration: 2 weeks 4 weeks

Call: None

Students Accepted: 1 per month

Offered: Available all year

Faculty: W. A. Anthony, M.D., Richard Kibbey, M.D., William Bordelon, M.D., Michael Wilkerson, M.D.

## **WOUND CARE.**

**MSUR-806U-401. (Amarillo)** The student will work as a preceptor with one of the clinical Faculty surgeons listed. Clinical material is available in the affiliated hospitals: Baptist St. Anthony, Northwest Texas, and the Veterans Administration Medical Center.

Prerequisite: Completion of Year III

Duration: 2 weeks or 4 weeks

Call: n/a

Students Accepted: n/a

Offered: Available all year

Faculty: Dennis B. Dove, M.D., David G. McNeir, M.D., Richard A. Franklin, M.D. (Clinical Faculty), Bryan P. Bullard, D.P.M. (Clinical Faculty)

El Paso Division Senior Electives (MSIV):

**CARDIOVASCULAR SURGERY.**

**MSUR-806B-801. (El Paso)** This elective is designed to teach the student the clinical techniques of diagnosis and management of congenital and acquired cardiovascular disease. A large number and variety of patients are available at the affiliated teaching hospitals.

**GENERAL SURGERY ELECTIVE.**

**MSUR-806A-801 - (El Paso)** As an external member of a team, which includes faculty members, residents, and junior clerks, the fourth-year students will participate in the care of surgical patients in the emergency room, surgical wards, operating room, and clinic. Pre- and post-operative care and management of patients in the Surgical Intensive Care Units will be stressed. Assignments to selected clinical faculty preceptors are also available.

**GENERAL SURGERY SUB-INTERNSHIP.**

**MSUR-806K-801. (El Paso)** 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-/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.

**FEMALE BREAST DISEASE & TREATMENT.**

**MSUR-806V-801. (El Paso)** 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.

**OTOLARYNGOLOGY.**

**MSUR-806D-801. (El Paso)** The purpose of this elective is to ensure an understanding of the pathophysiology of diseases and injuries to the ear, nose, and throat; instruct the student in the diagnosis and management of ear, nose, and throat diseases and injuries; train the student in the skills of a good ear, nose, and throat exam, the indications for surgical versus medical

management of the diseases and trauma, and post-operative management; aid the student in understanding the effects of ear, nose, and throat diseases and injuries upon the patients and their families; and aid the student in learning to understand the total patient. The student will be trained in the clinic and operating room, and in the hospital management of ENT patients. The student will be expected to examine patients, perform histories and physicals for admission, scrub in surgery, and follow post-operative patients.

### **PLASTIC SURGERY.**

**MSUR-806F-801. (El Paso)** This elective is designed to acquaint the fourth-year student 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- and post-operative and follow-up care for such patients.

### **SURGICAL INTENSIVE CARE (SICU).**

**MSUR-806O-801. (El Paso)** This elective is an experience in the management of surgical patients in the intensive care unit.

### **TRAUMA.**

**MSUR-806H-801. (El Paso)** This elective clerkship, under the supervision of a preceptor, provides an opportunity for the student to learn techniques in resuscitation and the management of trauma in a special intensive care setting. The student will learn and apply techniques of monitoring vital system functions including the use of monitoring devices.

### **UROLOGY.**

**MSUR-806I-801. (El Paso)** 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.

Lubbock Division Senior Electives (MSIV):

**BURNS / WOUNDS/ NUTRITION.**

**MSUR-806U-001. (Lubbock)** This 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.

**CARDIOVASCULAR SURGERY.**

**MSUR-806B-001. (Lubbock)** This elective is planned to teach the student the clinical techniques of diagnosis and management of congenital and acquired cardiovascular disease. A large number and variety of patients are available at the affiliated teaching hospitals.

**EMERGENCY MEDICINE.**

**MSUR-806C-001. (Lubbock)** The Emergency Center sees a wide variety of traumatic injury and medical illness. Under the supervision of the Emergency Center attending physicians, students will participate in the management of various emergent conditions including trauma, medicine, pediatrics, and obstetrics-gynecology. There will be ample opportunity to learn suture technique, EKG and x-ray interpretation, and the correct approach to the resuscitation of victims of trauma and cardiopulmonary arrest.

**GENERAL SURGERY.**

**MSUR-806A-001. (Lubbock)** The student will serve as an extern on the Surgical Service. As an extern member of a team that includes faculty members, residents, and junior clerks, the senior student will participate in the care of surgical patients in the emergency room, surgical wards, operating room, and clinic. Pre-/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.

### **GENERAL SURGERY SUB-INTERNSHIP.**

**MSUR-806K-001. (Lubbock)** 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-/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.

### **NEUROSURGERY.**

**MSUR-806L-001. (Lubbock)** 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 neurologic decision-making process. There will be the opportunity to participate in the operating room, intensive care unit and regular ward care of neurosurgical patients.

### **OTOLARYNGOLOGY.**

**MSUR-806D-001. (Lubbock)** 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.

### **PEDIATRIC SURGERY.**

**MSUR-806E-001. (Lubbock)** 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.

### **PLASTIC SURGERY.**

**MSUR-806F-001. (Lubbock)** This elective is designed to acquaint the fourth-year student 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- and post-operative and follow-up care for such patients.

### **SURGICAL INTENSIVE CARE (SICU).**

**MSUR-806O-801. (Lubbock)** This elective is an experience in the management of surgical patients in the intensive care unit.

### **SURGICAL RESEARCH.**

**MSUR-806G-001. (Lubbock)** 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.

### **TRAUMA / EMERGENCY MEDICINE.**

**MSUR-806C-001. (Lubbock)** This elective under the supervision of a preceptor provides an opportunity to learn techniques in resuscitation and the management of trauma in a special intensive care setting. The clerk will learn and apply techniques of monitoring vital system functions including the use of monitoring devices. Experience in Emergency Room services is a component of this elective.

### **UROLOGY.**

**MSUR-806I-001. (Lubbock)** This is an advanced experience in the management of disorders of the urinary tract and is designed to provide the clerk with an understanding of the principles of urological diagnosis and management. Included 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.

## **INTERDISCIPLINARY COURSES**

The following are interdisciplinary courses taught in Years One and Two of the medical school curriculum.

### **FOUNDATIONS FOR MEDICAL PRACTICE**

**MFAM-5030. (Lubbock)** An introduction to the six core competencies of medical practice as detailed by the Accreditation Council for Graduate Medical Education. This course uses interactive lectures, small, group experiential learning, physician shadowing, basic skills workshops, and reflective portfolio journaling to help students form the foundation of his or her philosophy of patient care in medical practice. This course is taught in both the fall and spring semester of Year One.

### **ASSESSING MEDICAL EVIDENCE.**

**MFAM-6030. (Lubbock)** This course provides knowledge and understanding of biostatistics, epidemiological surveillance and vital statistics, probability and inferences from epidemiological data, outcome measures, and disease outbreaks, evaluation of diagnostic procedures, study and data analysis, quality improvement methods, and re-emerging diseases and organism resistance. This course is taught in both Years One and Two.

### **SKILLS IN PATIENT ASSESSMENT**

**MFAM-6021 – (Lubbock)** A more detailed introduction to patient assessment. This course emphasizes history-taking and organization skills and teaches the student how to perform a complete physical examination then apply those skills to actual patient care. Small group sessions in both the fall and spring semester are the main method of teaching. This course is taught in both the fall and spring semesters of Year Two.

### **HEALTH COMMUNICATIONS.**

**MIDS-806C-401. (Amarillo)** This elective is designed to provide the student with basic competencies in biomedical information management. The student is taught the basics of searching the biomedical literature via PubMed, designed and supported by National Library of Medicine. The student is also exposed to searching

CancerLit, Physicians Data Query, and ToxNet, as desired. At the end of the rotation, the student is given a brief practical examination of his-her abilities to search using these tools. Please call Jan Rice at 354-5450 or email jrice@ama.ttuhs.edu the week before your rotation begins to schedule the first 2 hour session.

Prerequisite: n/a

Duration: 2 weeks

Call: n/a

Students Accepted: 4 per month

Offered: Available all year

Faculty: Health Communications Faculty

### **BIOMEDICAL INFORMATION MANAGEMENT.**

**MIDS-803C-801. (EI Paso)** This elective is designed to provide the student with basic competencies in biomedical information management. The student is taught the basics of searching the biomedical literature via PubMed, designed and supported by National Library of Medicine. The student is also exposed to searching CancerLit, Physicians Data Query, and ToxNet, as desired. At the end of the rotation, the student is given a brief practical examination of his/her abilities to search using these tools.

### **BIOMEDICAL INFORMATION MANAGEMENT.**

**MIDS-803C-001. (Lubbock)** This elective is designed to provide the student with basic competencies in biomedical information management. The student is taught the basics of searching the biomedical literature via PubMed, designed and supported by National Library of Medicine. The student is also exposed to searching CancerLit, Physicians Data Query, and ToxNet, as desired. At the end of the rotation, the student is given a brief practical examination of his/her abilities to search using these tools.

### **PUBLIC HEALTH.**

**MPRM-806B-001. (Lubbock)** The student will be assigned to the Regional Office of the Texas Department of Health or other local public health agencies. The student will visit and be oriented to the whole spectrum of department services. This will include communicable disease, maternal and child health, chronic disease, health education, dental health, veterinary public health, environmental health,

consumer health protection, emergency medical services, nursing home inspection, hospital licensure, and public health administration.

## **FACULTY**

### **Campus: Amarillo HSC**

- ❖ ARREDONDO, MARK , MD; 1983; UT SOUTHWESTERN MEDICAL SCHOOL; PROFESSOR - HSC; SURGERY – AMARILLO
- ❖ ASSADOURIAN, ASSADOUR, MD; 1991; UNIVERSITY OF JORDAN; ASST. PROFESSOR CLINICAL - HSC; INTERNAL MEDICINE – AMARILLO
- ❖ BAKER, TERESA E., MD; 2001; UNIVERSITY OF TEXAS AT SOUTHWESTERN; INSTRUCTOR; OB/GYN – AMARILLO
- ❖ BALMES, MARICHU, MD; 1987; DE LA SALLE UNIVERSITY OF MEDICINE; ASSISTANT PROFESSOR; FAMILY MEDICINE - AMARILLO
- ❖ BARCLAY, DAVID L., MD; 1955; UNIVERISTY OF WASHINGTON; PROFESSOR; OB/GYN – AMARILLO
- ❖ BERK, STEVEN LEE., MD; 1975; BOSTON UNIVERSITY; REGIONAL DEAN; RC ADMINISTRATION – AMARILLO
- ❖ BRADFORD, DAWN, MD; 2002; UNIVERSITY OF TENNESSEE, MEMPHIS COLL. OF MEDICINE; INSTRUCTOR; INTERNAL MEDICINE – AMARILLO
- ❖ CHAVEZ, ANGELICA. MD; 1998; UT SAN ANTONIO HSC SCHOOL OF MEDICINE; ASST. PROFESSOR; PEDIATRICS - AMARILLO
- ❖ CUNNINGHAM, JAMES C., MD; 1981; UTMB GLAVESTON; CLINICAL ASSOC. PROF. - HSC; PEDIATRICS - AMARILLO
- ❖ DAVIS, WILLIAM RICHARD, MD; 1976; BAYLOR COLLEGE OF MEDICINE; REGIONAL CHAIRPERSON - HSC; INTERNAL MEDICINE - AMARILLO
- ❖ DOVE, DENNIS BRYAN, MD; 1972; UNIVERSITY OF CINCINNATI; REGIONAL CHAIRPERSON - HSC; SURGERY - AMARILLO
- ❖ FRANKLIN, JEREMY A., MD; 1998; UNIVERSITY OF ALABAMA, SOM; ASST. PROF. CLINICAL - HSC; PEDIATRICS - AMARILLO
- ❖ GALVAN, DAN A., MD; 1986; UTMB GALVESTON; ASST. PROF. CLINICAL - HSC; SURGERY – AMARILLO
- ❖ GOOCH, JASON, MD; 2001; TTUHSC SCHOOL OF MEDICINE; INSTRUCTOR; OB/GYN - AMARILLO
- ❖ GREEN, MICHAEL R., MD; 1975; UTHSC AT SAN ANTONIO; ASSOC. PROF. CLINICAL - HSC; PEDIATRICS – AMARILLO
- ❖ HERRICK, SHANNON, MD; 2001; UT SOTHWESTERN; CLINICAL ASST. PROFESSOR; PEDIATRICS - AMARILLO
- ❖ HODGES, RONALD HOWARD, MD; 1975; UNIVERSITY OF MISSOURI COL; ASSOC. PROFESSOR; OB/GYN – AMARILLO

- ❖ HOLMES-FEATHERSTON, HEATHER, MD; 1998; UTMB GALVESTON;  
ASST. PROFESSOR; OB/GYN - AMARILLO
- ❖ HROMAS, FRANK DENNY, MD; 1997; TTUHSC SCHOOL OF MEDICINE;  
ASST. PROFESSOR; FAMILY MEDICINE - AMARILLO
- ❖ JENKINS, MARJORIE R., MD; 1995;  
ASST. PROFESSOR; INTERNAL MEDICINE - AMARILLO
- ❖ JENKINS, MICHAEL D., MD; 1986; TEXAS TECH UNIVERSITY HSC, SCHOOL OF  
MEDICINE; CLINICAL ASST. PROF./PT. - HSC; PSYCHIATRY - AMARILLO
- ❖ KAUFFMAN, ROBERT PORTER, MD; 1979; UT HOUSTON;  
ASSOC. PROFESSOR; OB/GYN - AMARILLO
- ❖ KELLEHER, STEPHEN P., MD; 1975; HARVARD MEDICAL SCHOOL;  
ASSOC. PROF. CLINICAL - HSC; INTERNAL MEDICINE - AMARILLO
- ❖ LEEPER, STEPHANIE, MD; 1987; EAST. TENN. ST. UNIV JAMES H QUILLEN SOM  
ASSOC. ACADEMIC DEAN; RC ADMINISTRATION – AMARILLO
- ❖ LIM, SEAH HOOI, MD; 1991;  
PROFESSOR - HSC; INTERNAL MEDICINE - AMARILLO
- ❖ LUCK, MINDY BET, MD; 2000;  
INSTRUCTOR; OB/GYN - AMARILLO
- ❖ LUCKSTEAD, EUGENE F., MD; 1963; IOWA COLLEGE OF MEDICINE;  
PROFESSOR CLINICAL - HSC; PEDIATRICS - AMARILLO
- ❖ LUND, JON D., MD; 1988; UT SOUTHWESTERN;  
ASST. PROFESSOR; OB/GYN - AMARILLO
- ❖ MCCURDY, FREDRICK A., MD/PHD; 1976; UNIVERSITY OF NEBRASKA, COLLEGE  
OF MEDICINE; PROFESSOR CLINICAL - HSC; PEDIATRICS - AMARILLO
- ❖ NIRGIOTIS, JASON GEORGE, MD; 1986; UNIVERSITY OF CHICAGO, SCHOOL OF  
MEDICINE;  
ASSOC. PROF. CLINICAL - HSC; PEDIATRICS - AMARILLO
- ❖ RODRIGUEZ, MANUEL, MD; 1976; UNIVERSITY OF MADRID, SPAIN;  
ASSOC. PROF. CLINICAL - HSC; SURGERY - AMARILLO
- ❖ SANCHEZ, GERMAN A., MD; 1990; INDUSTRIAL UNIVERSITY OF SANTANDER,  
COLOMBIA;  
INSTRUCTOR CLINICAL - HSC; PEDIATRICS - AMARILLO
- ❖ SANTOLAYA-FORGAS, JOAQUIN, MD/PHD; 1980; UNIVERSITY AUTONOMA  
MADRID SPAIN; VISITING PROFESSOR; OB/GYN - AMARILLO
- ❖ STENHOUSE, ANDREW, MD; 1959;  
ASST ACADEMIC DEAN – HSC; INTERNAL MEDICINE – AMARILLO
- ❖ TURNER, CURTIS WADE, MD; 1986; MEDICAL UNIVERSITY OF SOUTH CAROLINA,  
CHARLESTON;

- ASSOC. PROF. CLINICAL - HSC; PEDIATRICS - AMARILLO
- ❖ UDEKWU, ANTHONY, MD; 1979; UNIVERSITY OF NIGERIA;  
PROFESSOR - HSC; SURGERY - AMARILLO
  - ❖ URBAN, ROBERT STEPHEN, MD; 1978; BAYLOR COLLEGE OF MEDICINE;  
ASSOC. PROF. CLINICAL - HSC; INTERNAL MEDICINE - AMARILLO
  - ❖ VAN HOOK, CATHERINE, MD; 1987; UTMB GALVESTON  
ASST. PROFESSOR; OB/GYN – AMARILLO
  - ❖ VAN HOOK, JAMES, MD; 1982; UTMB GALVESTON  
PROFESSOR – HSC; OB/GYN – AMARILLO
  - ❖ VOTTA, RICHARD P., MD; 1980; UNIVERSITY OF NEBRASKA MEDICAL CENTER;  
ASSOC. PROF. CLINICAL - HSC; PEDIATRICS - AMARILLO
  - ❖ WEIS, BRIAN C., MD; 1997;  
ASSOC. PROF. CLINICAL - HSC; INTERNAL MEDICINE - AMARILLO
  - ❖ WERNER, HAROLD VINCENT, MD; 1966; NORTHWESTERN UNIVERSITY;  
PROFESSOR CLINICAL - HSC; INTERNAL MEDICINE - AMARILLO
  - ❖ WILSON JOANNA, MD; 2001;  
ASST. PROFESSOR – HSC; OB/GYN – AMARILLO
  - ❖ WRIGHT, CHARLES VERDO, MD; 1975; UNIVERSITY OF MISSISSIPPI;  
ASST. ACADEMIC DEAN; FAMILY MEDICINE - AMARILLO
  - ❖ YOUNG, RODNEY BRIAN, MD; 1997; TEXAS TECH UNIVERSITY HSC, SOM  
ASST. PROFESSOR; FAMILY MEDICINE - AMARILLO
  - ❖ ZHANG, YANA, MD/PHD; 1989; HARBIN UNIVERSITY, HARBIN CITY, CHINA;  
RESEARCH ASST. PROFESSOR; INTERNAL MEDICINE - AMARILLO
  - ❖ ZOLLER, DENNIS PAUL, MD; 1976; NORTHWESTERN UNIVERSITY;  
CLINICAL ASSOC. PROF. - HSC; FAMILY MEDICINE - AMARILLO

## **FACULTY**

### **Campus: El Paso HSC**

- ❖ AGUIRRE-HAUCHBAUM, SALVADOR F., MD; 1971; UNIVERSITY AUTONOMA DE CHIHUAHUA, MEXICO;  
CLINICAL ASSOC. PROF. - HSC; NEUROPSYCHIATRY - EL PASO
- ❖ ALLEN, TERRY W., PHD; 1973; MICHIGAN STATE UNIVERSITY;  
CLINICAL ASST. PROF./PT. - HSC; PEDIATRICS - EL PASO
- ❖ BERMAN, DANIEL WINTER, MD; 1999; ALBERT EINSTEIN;  
CLINICAL ASST. PROF./PT. - HSC; EMERGENCY MEDICINE - EL PASO
- ❖ BLUMENFELD, DANIEL GRAY, MD; 1991; UT SOUTHWESTERN;  
CLINICAL ASST. PROF./PT. - HSC; OPHTHALMOLOGY - EL PASO
- ❖ BRIGHT, TAMIS M., MD; 1989; LOYOLA STRITCH;  
ASSOC. PROF. CLINICAL - HSC; INTERNAL MEDICINE - EL PASO
- ❖ BRYAN, EARL DAVID, MD; 1991; UT HOUSTON;  
ASST. PROF. CLINICAL - HSC; EMERGENCY MEDICINE - EL PASO
- ❖ BUTLER, JACK M., MD; 1999; TEXAS TECH UNVERISITY HSC, SOM;  
ASST. PROF. CLINICAL - HSC; EMERGENCY MEDICINE - EL PASO
- ❖ CABRERA, MARLYN L., MD; 1991; UNIVERSITY LA SALLE;  
INSTRUCTOR CLINICAL - HSC; PEDIATRICS - EL PASO
- ❖ CALLEROS-MACIAS, JESUS, MD; 1991; UNIVERSIDAD AUTONOMA DE CHIHUAHUA, MEXICO;  
VISITING PROFESSOR; RADIOLOGY - EL PASO
- ❖ CHAUDHURI, KALLOL, MD/PHD; 1981; CALCUTTA NAT;  
ASSOC. PROF. CLINICAL - HSC; ANESTHESIOLOGY - EL PASO
- ❖ CHINNOCK, BRIAN FARR, MD; 1995; UNVERISITY OF ARIZONA, COLLEGE OF MEDICINE;  
CLINICAL ASST. PROF./PT. - HSC; EMERGENCY MEDICINE - EL PASO
- ❖ CHRISTENSON, ROBERT A., MD; 1980; LOMA LINDA UNIVERSITY;  
ASSOC. PROF. CLINICAL - HSC; PEDIATRICS - EL PASO
- ❖ COTTRELL, MARIA C., MD; 1985; UNIVERSITY OF SOUTHERN CALIFORNIA;  
ASST. PROF. CLINICAL - HSC; FAMILY MEDICINE - EL PASO
- ❖ CROCKER, PATTY J, MD; 1991; UNIVERSITY OF NEW MEXICO, SCHOOL OF MEDICINE;  
ASST. PROF. CLINICAL - HSC; EMERGENCY MEDICINE- EL PASO

- ❖ DAVIS, HARRY E., MD; 1966; WEST VIRGINIA UNIVERSITY;  
ASSOC. PROF. CLINICAL - HSC; INTERNAL MEDICINE - EL PASO
  
- ❖ DAYS, ALISON L., MD; 1999; YALE UNIVERSITY, SCHOOL OF MEDICINE, NEW  
HAVEN, CT;  
ASST. PROF. CLINICAL - HSC; PEDIATRICS - EL PASO
  
- ❖ DE LA ROSA, ANTONIO, MD; 2000; UTMB GALVESTON;  
CLINICAL INSTRUCTOR – HSC; OB/GYN – EL PASO
  
- ❖ EL MASRI, WAFIC, MD; 1999; ANC;  
INSTRUCTOR CLINICAL – HSC; OB/GYN – EL PASO
  
- ❖ ERASO, LUIS, MD; 1996; COLEGIO MAYOR DE NUESTRA SENORA DEL  
ROSARIO UNIV.  
ASST. PROFESSOR – HSC; INTERNAL MEDICINE – EL PASO
  
- ❖ FIGUEROA-CASAS, JUAN B., MD; 1991;  
ASST. PROF.; INTERNAL MEDICINE - EL PASO
  
- ❖ FOLEY, JOHN D., MD; 1970; ST. UNIVERSITY OF NEW YORK, BUFFALO SO;  
ASSOC. PROF. CLINICAL - HSC; PEDIATRICS - EL PASO
  
- ❖ GARCIA, BLANCA IVETTE, MD; 1998; TEXAS TECH UNIVERSITY, SOM;  
INSTRUCTOR CLINICAL - HSC; PEDIATRICS - EL PASO
  
- ❖ GERHARDT, ROBERT TAFT, MD; 1992; UNIVERSITY OF MIAMI;  
CLINICAL ASSOC. PROF. - HSC; EMERGENCY MEDICINE - EL PASO
  
- ❖ GOLDSTEIN, RANDY JASON, MD; 1995; UNIVERSITY OF BUFFALO;  
CLINICAL ASST. PROF./PT. - HSC; EMERGENCY MEDICINE - EL PASO
  
- ❖ GOMEZ, GILBERTO, MD; 2001; UT SAN ANTONIO;  
INSTRUCTOR; PEDIATRICS - EL PASO
  
- ❖ GREENE, SCOTT P., MD; 1996; TEXAS TECH UNIVERSITY HSC, SCHOOL OF  
MEDICINE;  
ASST. PROF. CLINICAL - HSC; EMERGENCY MEDICINE - EL PASO
  
- ❖ GREER, VERONICA L., MD; 1989; UT HOUSTON;  
ASST. PROFESSOR; EMERGENCY MEDICINE - EL PASO
  
- ❖ HAND, WILLIAM LEE, MD; 1962; EMORY UNIVERSITY SCHOOL OF MEDICINE;  
PROFESSOR - HSC; INTERNAL MEDICINE - EL PASO
  
- ❖ HASHIMOTO, LUIS A., MD/PHD; 1980; SAN MARCOS NATIONAL UNIVERSITY,  
LIMA , PERU;  
ASSOC. PROF. CLINICAL - HSC; SURGERY - EL PASO
  
- ❖ HAYNES, JOHN FLETCHER, MD; 1980; UT SAN ANTONIO;  
ASSOC. PROFESSOR; EMERGENCY MEDICINE - EL PASO

- ❖ HERNANDEZ, ARTURO ALEJANDRO, MD; 2000; TEXAS TECH UNIVERSITY SOM; INSTRUCTOR; PEDIATRICS - EL PASO
- ❖ HORN, KATHRYN VAN NORMAN, MD; 1984; BAYLOR COLLEGE OF MEDICINE; ASSOC. PROF. CLINICAL - HSC; FAMILY MEDICINE - EL PASO
- ❖ HUGHES, HAROLD W., MD; 1986; UT MEDICAL BRANCH; ASST. PROF. CLINICAL - HSC; INTERNAL MEDICINE - EL PASO
- ❖ IPSON, MERLE A., MD; 1988; TEXAS TECH UNIVERSITY HSC SOM; ASST. PROF. CLINICAL - HSC; PEDIATRICS - EL PASO
- ❖ KANLIC, ENES M., MD; 1977; ASSOCIATE PROFESSOR; ORTHOPAEDIC SURGERY - EL PASO
- ❖ KHAN, AMIR MOHAMMAD, MD; 1986; ASSOC. PROFESSOR; INTERNAL MEDICINE - EL PASO
- ❖ KILGO, ROBERT, MD; 1993; UNIVERSITY OF NEW MEXICO; ASST. PROF. CLINICAL - HSC; EMERGENCY MEDICINE - EL PASO
- ❖ KING, ANITA KATHERINE, MD; 2001; WAKE FOREST UNIVERSITY, SCHOOL OF MEDICINE; CLINICAL INSTRUCTOR - HSC; EMERGENCY MEDICINE - EL PASO
- ❖ KOKASH, FARES ATEF, MD; 1988; DAMASCUS UNIVERSITY, MEDICAL SCHOOL; ASST. PROFESSOR; PEDIATRICS - EL PASO
- ❖ LACERTE, DANIEL, MD; 1987; LAVAL UNIVERSITY SCHOOL OF MEDICINE; ASST. PROF. – HSC; SURGERY – EL PASO
- ❖ LAKSHMANASWAMY, RAJKUMAR, PHD; 1977; UNIVERSITY OF MADRAS; ASST. PROFESSOR; PATHOLOGY - EL PASO
- ❖ LOPEZ, HECTOR MANUEL, MD; 2001; UTMB GALVESTON; ASST. PROF. CLINICAL - HSC; FAMILY MEDICINE - EL PASO
- ❖ LUNN, JEFFREY JEROME, MD; 1979; UNIVEFSITY OF NORTH DAKOTA, SCHOOL OF MEDICINE; ASSOC. PROF. CLINICAL - HSC; ANESTHESIOLOGY - EL PASO
- ❖ LYN, HEIDI, MD; 1994; BAYLOR COLLEGE OF MEDICINE; ASST. PROF. – HSC; OB/GYN – EL PASO
- ❖ MALEKADZEH, FARZAD, MD; 2001; INSTRUCTOR – HSC; ANESTHESIOLOGY – EL PASO
- ❖ MANDAL-CHAUDHURI, SWAPNA, MD; 1983; UNIVERSITY OF CALCUTTA; REGIONAL CHAIRPERSON - HSC; ANESTHESIOLOGY - EL PASO
- ❖ MARTIN, CHAMAINE, MD; 1996; UTMB GALVESTON; ASST. PROFESSOR – HSC; FAMILY MEDICINE – EL PASO

- ❖ MOHAMED-ALY, MOHAMED; 1988; CAIRO UNIVERSITY;  
ASST. PROFESSOR – HSC; INTERNAL MEDICINE – EL PASO
- ❖ MORALES, CARMELA P., MD; 1991; UT SOUTHWESTERN;  
ASST. PROF. CLINICAL - HSC; INTERNAL MEDICINE - EL PASO
- ❖ MYDUR, THIPPESWAMY, MD; 1982; GOVERNMENT MEDICAL COLLEGE,  
MALLANY, INDIA;  
ASST. PROF. CLINICAL - HSC; ANESTHESIOLOGY - EL PASO
- ❖ NELSON, CARLENE CLASPER, PHD; 1991; UNIVERSITY OF MARYLAND;  
ASST. PROF. CLINICAL - HSC; OB/GYN-EL PASO
- ❖ NORIEGA, OSCAR A., MD; 1977; UNIVERSITY OF CALIFORNIA AT SAN  
FRANSISCO; ASSOC. PROF. CLINICAL - HSC; FAMILY MEDICINE - EL PASO
- ❖ NUTIS, DONORAH, MD; 2001; TTUHSC, SOM;  
ASST. PROFESSOR – HSC; FAMILY MEDICINE – EL PASO
- ❖ NUWAYHID, BAHIJ, MD/PHD; 1968;  
REGIONAL CHAIRPERSON – HSC; OB/GYN – EL PASO
- ❖ OCHOA, ROBERT, MD; 1995; UNIVERSIDAD AUTONOMA DE GUADALAJARA,  
MEXICO;  
ASST. PROF. CLINICAL - HSC; EMERGENCY MEDICINE - EL PASO
- ❖ ORTEGA, DEBORAH ANNE, MD; 1992; UTMB GALVESTON;  
ACADEMIC ASST. PROF. - HSC; ANESTHESIOLOGY - EL PASO
- ❖ PALAFOX, DAVID, MD; 1980; TEXAS TECH UNIVERSITY HSC, SCHOOL OF  
MEDICINE;  
ASST. PROF. CLINICAL - HSC; EMERGENCY MEDICINE - EL PASO
- ❖ POEHLMANN, SCOTT, MD; 1988;  
ASST. PROR. CLINICAL – HSC; OB/GYN – EL PASO
- ❖ POWERS, CHRISTOPHER, MD; 1998; TEXAS TECH UNIVERSITY HSC, SCHOOL  
OF MEDICINE;  
ASST. PROF. CLINICAL - HSC; OB/GYN - EL PASO
- ❖ RAMIREZ, AMADO, MD; 1998; TTUHSC SCHOOL OF MEDICINE;  
ASST. PROF. CLINICAL - HSC; PEDIATRICS - EL PASO
- ❖ RHODES, MILLER F., MD; 1973; MEHURRY MEDICAL COLLEGE;  
CLINICAL ASST. PROF./PT. - HSC; SURGERY - EL PASO
- ❖ ROBINSON, ARVIN EDWARD, MD; 1964; MEDICAL COLLEGE OF VIRGINIA;  
PROFESSOR CLINICAL - HSC; RADIOLOGY - EL PASO
- ❖ RODRIGUEZ, FAUSTO A., MD; 1985; UNIVERSITY OF JUAREZ;  
CLINICAL ASST. PROF./PT. - HSC; PATHOLOGY - EL PASO

- ❖ SALLUM, MAHA, MD; 1996; TISHREEN UNIVERSITY;  
INSTRUCTOR – HSC; PEDIATRICS - EL PASO
- ❖ SERRATO, PEDRO, MD; 1996; UNIVERSITY OF ILLINOIS;  
INSTRUCTOR CLINICAL - HSC; INTERNAL MEDICINE - EL PASO
- ❖ SHIRSAT, PRATIBHA KIRAN, MD; 1973; BOMBAY MEDICAL COLLEGE;  
ASSOC. PROF. CLINICAL - HSC; PEDIATRICS - EL PASO
- ❖ SOTOMAYOR, EDGAR AUGUSTO, MD; CAYETANO HEREDIA UNIVERSITY;  
ASST. PROFESSOR; PATHOLOGY - EL PASO
- ❖ SPENCER, SUSAN, MD; 1998; BAYLOR COLLEGE OF MEDICINE;  
CLINICAL AST. PROF./PT. – HSC; EMERGENCY MEDICINE – EL PASO
- ❖ SPRINGMANN, KURT E., MD; 1984; UNIVERSITY OF ARIZONA;  
ASST. PROF. CLINICAL - HSC; ANESTHESIOLOGY - EL PASO
- ❖ STUMP, ROBERT FRANK, MD/PHD; 1998; UT SAN ANTONIO;  
CLINICAL ASST. PROF./PT. - HSC; EMERGENCY MEDICINE - EL PASO
- ❖ SUAREZ-MARTINEZ, CLAUDIA, MD; 1987; UNIVERSITY NEUVLEON;  
INSTRUCTOR CLINICAL - HSC; OB/GYN - EL PASO
- ❖ URQUIDI, ULYSSES JOHN, MD; 1999; TEXAS TECH UNIVERSITY HSC,  
SCHOOL OF MEDICINE;  
ASST. PROF. CLINICAL - HSC; FAMILY MEDICINE - EL PASO
- ❖ URTUBEY, ADRIANA, MD; 1993; UNIVERSITY OF ILLINOIS AT CHICAGO;  
ASST. PROF. CLINICAL - HSC; INTERNAL MEDICINE - EL PASO
- ❖ WALSH, MATTHEW J., MD; 1972; UNIVERSITY OF NEW MEXICO;  
DEPT. CHAIRPERSON; EMERGENCY MEDICINE - EL PASO
- ❖ WANG, SHENG-YONG, MD/PHD; 1982; CHINA;  
ASST. PROFESSOR; INTERNAL MEDICINE - EL PASO
- ❖ WATTS, SUSAN IRENE, PHD; 1996;  
RESEARCH ASST. PROFESSOR; EMERGENCY MEDICINE – EL PASO
- ❖ VELA, OSCAR, MD; 2002; UTHSC HOUSTON;  
INSTRUCTOR – HSC; EMERGENCY MEDICINE – EL PASO
- ❖ WU, ZHAO, MD; 1986; BEIJING MEDICAL UNIVERSITY, BEIJING, CHINA;  
ASST. PROF. CLINICAL - HSC; PATHOLOGY - EL PASO
- ❖ WILCOX, JAMES ALLEN; DO; 1981; TEXAS COLLEGE OF OSTEOPATHIC  
MEDICINE;  
PROFESSOR - HSC; NEUROPSYCHIATRY – EL PASO

## **FACULTY**

### **MD**

#### **Campus: Lubbock HSC**

- ❖ ANURAS, JULIA, MD; 2002;  
INSTRUCTOR CLINICAL SCIENCES – HSC; INTERNAL MEDICINE – LUBBOCK
- ❖ ARONOFF, CHRISTINE KNEER, MD; 1991; UNIVERSITY OF SOUTH FLORIDA;  
ASST. PROF. CLINICAL - HSC; OB/GYN - LUBBOCK
- ❖ ARONOFF, DAVID R, MD; 1991; UNIVERSITY OF SOUTH FLORIDA;  
ASSOC. PROF.; SURGERY - LUBBOCK
- ❖ BACCHI - SMITH, DONNA, MD; 1981; UNIVERSITY OF CINCINNATI COM.;  
ASSOC. PROF.; PEDIATRICS - LUBBOCK
- ❖ BAKDASH, MOHAMMED M., MD; 1970; UNIVERSITY OF DAMASCUS;  
ASST. PROF.; INTERNAL MEDICINE - LUBBOCK
- ❖ BANISTER, MELINDA D., MD; 1998; UNIVERSITY OF NEBRASKA;  
INSTRUCTOR; SURGERY - LUBBOCK
- ❖ BANISTER, RONALD E., MD; 1998; TULANE UNIVERSITY;  
INSTRUCTOR; ANESTHESIOLOGY - LUBBOCK
- ❖ BICKLEY, LYNN S., MD; 1982; UNIVERSITY OF ROCHESTER;  
ASSOC. PROF.; INTERNAL MEDICINE - LUBBOCK
- ❖ BLACKWELL, DAVID ERIC, MD; 1973; BOWMAN GRAY SCHOOL OF MEDICINE;  
CLINICAL PROF. - HSC; OB/GYN - LUBBOCK
- ❖ BOYD, SUSAN, MD; 1992; TTUHSC, SOM;  
CLINICAL PROFESSOR – HSC; MOLECULAR PATHOLOGY – LUBBOCK
- ❖ BUCHOK, STEPHEN, MD; 1986; UT SAN ANTONIO HSC, SOM;  
INSTRUCTOR CLINICAL – HSC; NEUROPSYCHIATRY – LUBBOCK
- ❖ BUSCEMI, DOLORES B, MD; 1992; TTUHSC SCHOOL OF MEDICINE;  
ASST. PROF.; INTERNAL MEDICINE - LUBBOCK
- ❖ CAMP, TAMMY MICHELLE, MD; 1994; TTUHSC SCHOOL OF MEDICINE;  
ASST. PROF. CLINICAL - HSC; PEDIATRICS - LUBBOCK
- ❖ CECALUPO, ANTHONY, MD; 1974; PENN STATE UNIVERSITY;  
ASSOC. PROF.; PEDIATRICS – LUBBOCK
- ❖ CHAO, CHUN-HUAI; 2000; TTUSHC, SOM;  
INSTRUCTOR – HSC; ANESTHESIOLOGY - LUBBOCK
- ❖ COBOS, EVERARDO, MD; 1981; UT SAN ANTONIO;  
PROF.; INTERNAL MEDICINE - LUBBOCK
- ❖ CORDERO, JOEHASSIN, MD; 1995; EASTERN VIRGINIA GRADUATE SCHOOL OF  
MEDICINE; ASST. PROF. - HSC; SURGERY - LUBBOCK

- ❖ CORONA, JORGE, MD; 1993; LA SALLE UNIVERSITY;  
ASST. PROFESSOR; OPHTHALMOLOGY - LUBBOCK
- ❖ CUMMING - HOOD, PATRICIA A., MD; 1996;  
ASST. PROF. CLINICAL - HSC; FAMILY MEDICINE - LUBBOCK
- ❖ DABEZIES, EUGENE JEAN, MD; 1960; TULANE UNIVERSITY;  
PROF. - HSC; ORTHOPAEDIC SURGERY - LUBBOCK
- ❖ DAY, MILES R., MD; 1993; TEXAS A&M UNIVERSITY;  
ASSOC. PROF. - HSC; ANESTHESIOLOGY -LUBBOCK
- ❖ D'CUNHA, NICHOLAS C., MD; 1982; TOPINALA NATIONAL MEDICAL COLLEGE;  
ASST. PROF.; INTERNAL MEDICINE - LUBBOCK
- ❖ DERIESE, CORNELIA, MD; 1979; HANNOVER MEDICAL SCHOOL;  
ASST. PROF. CLINICAL - HSC; OB/GYN – LUBBOCK
- ❖ DERIESE, WERNER T. W., MD; 1979; HANNOVER MEDICAL SCHOOL;  
PROF. - HSC; SURGERY – LUBBOCK
- ❖ DOMINGUEZ, LEONARDO N., MD; 1992; UNIVERSIDAD DE BUENA AIRES  
(ARGENTINA);  
ASST. PROF. – HSC; OPHTHALMOLOGY –LUBBOCK
- ❖ EEZUZUEMHOI, DEBORAH R., MD; 1979; ARISTOTLE UNIVERSITY GREECE;  
ASST. PROF. CLINICAL - HSC; OPHTHALMOLOGY-LUBBOCK
- ❖ ESCUDIER, SUZANNE NORTHCUTT, MD; 1994; FRANCISCO MARRO UNIVERSITY,  
GUATEMALA;  
INSTRUCTOR; ANESTHESIOLOGY - LUBBOCK
- ❖ EVANS, ARTHUR THOMPSON, MD; 1974; UNIVERSITY OF CINCINNATI;  
DEPT. CHAIRPERSON; OB/GYN - LUBBOCK
- ❖ FARRELL, TOMMIE W., MD; 2000; UT SOUTHWESTERN;  
ASST. PROF.; FAMILY MEDICINE – LUBBOCK
- ❖ FAUST, DONALD, MD; 1977; LOUISIANA STATE UNIV MEDICAL SCHOOL;  
ASSOC. PROF. CLINICAL – HSC; ORTHOPAEDICS - LUBBOCK
- ❖ FELTON, CAROL K., MD; 1970; WOMAN MEDICAL COLLEGE OF P.;  
ASST. PROF. CLINICAL - HSC; OB/GYN – LUBBOCK
- ❖ FLOOD - SHAFFER, KELLIE FRANCES, MD; 1987; TTUHSC SCHOOL OF MEDICINE;  
ASSOC. PROF. CLINICAL - HSC; OB/GYN – LUBBOCK
- ❖ FREEDMAN, KENN ALAN, MD/PHD; 1989; TTUHSC SCHOOL OF MEDICINE;  
ASST. PROF. - HSC; OPHTHALMOLOGY - LUBBOCK
- ❖ FREZZA, ERMENEGILDO ELDO, MD; 1989; UNIVERSITY OF PADOVA ITALY;  
ASSOC. PROF. – HSC; SURGERY – LUBBOCK
- ❖ GATES, STEPHEN I., MD; 1980; UT SOUTHWESTERN;  
ASST. PROF. CLINICAL - HSC; ANESTHESIOLOGY – LUBBOCK

- ❖ GRAHAM, WADE A., MD; 1994; TTUHSC SCHOOL OF MEDICINE;  
ASST. PROF. CLINICAL - HSC; OPHTHALMOLOGY – LUBBOCK
- ❖ GRIMES, JERRY, MD; 1999; UTMB GALVESTON;  
ASST. PROFESSOR – HSC; ORTHOPAEDIC SURGERY - LUBBOCK
- ❖ GRISWOLD, JOHN A., MD; 1981; CREIGHTON UNIVERSITY;  
DEPT. CHAIRPERSON; SURGERY – LUBBOCK
- ❖ GUTHEIL, JAMES, MD; 2000; OHIO STATE UNIV COLL OF MEDICINE;  
ASST. PROF. CLINICAL – HSC; ORTHOPAEDICS - LUBBOCK
- ❖ HENRY, MELISSA KAE, MD; 1999; TTUHSC SCHOOL OF MEDICINE;  
CLINICAL INSTRUCTOR - HSC; FAMILY MEDICINE-LUBBOCK
- ❖ JABARA, SAMI, MD; 1995;  
ASST. PROF. CLINICAL – HSC; OB/GYN – LUBBOCK
- ❖ JOHNSON, LARA. MD; 2002; BAYLOR COLLEGE OF MEDICINE;  
INSTRUCTOR CLINICAL – HSC; PEDIATRICS - LUBBOCK
- ❖ JOHNSTON, ROBERT V, MD; 1987; BAYLOR COLLEGE OF MEDICINE;  
ASSOC. PROF.; ANESTHESIOLOGY – LUBBOCK
- ❖ KAYE, KIM SUTKER, MD; 1988; TULANE UNIVERSITY;  
ASST. PROF. CLINICAL - HSC; PATHOLOGY – LUBBOCK
- ❖ KHALID, SHAFI, MD; 1989; INSTITUTE OF NEUROLOGY, UK;  
ASST, PROF. CLINICAL – HSC; ANESTHESIOLOGY – LUBBOCK
- ❖ KHANNA, APURV; 1990; KING GEORGES;  
ASST. PROFESSOR – HSC; INTERNAL MEDICINE - LUBBOCK
- ❖ KUKOLICH, MARY K., MD; 1972; CORNELL UNIVERSITY;  
CLINICAL PROF. – HSC; PEDIATRICS - LUBBOCK
- ❖ LAMPE, RICHARD M, MD; 1968; MARQUETTE SCHOOL OF MEDICINE;  
DEPT. CHAIRPERSON; PEDIATRICS – LUBBOCK
- ❖ LINTON, KITTEN, MD; 1981; UT SOUTHWESTERN MEDICAL SCHOOL;  
INSTRUCTOR CLINICAL – HSC; FAMILY MEDICINE - LUBBOCK
- ❖ LUTHERER, LORENZ OTTO, MD/PHD; 1977; TTUHSC SCHOOL OF MEDICINE;  
PROF – HSC; PHYSIOLOGY – LUBBOCK
- ❖ MAMLOK, VIVIANE, MD; 1983; UNIVERSITY OF BRUSSELS;  
ASST. PROF. CLINICAL - HSC; PATHOLOGY – LUBBOCK
- ❖ MARCHBANKS, JOHN R., MD; 1975; UTMB GALVESTON;  
ASST. PROF.; SURGERY - LUBBOCK
- ❖ MITCHELL, JENNIFER J., MD; 1993; TTUHSC SCHOOL OF MEDICINE;  
ASSOC. PROF.; FAMILY MEDICINE – LUBBOCK

- ❖ MITCHELL, KELLY T., MD; 1990; UNIVERSITY OF CINCINNATI;  
ASST. PROF. – HSC; OPHTHALMOLOGY – LUBBOCK
- ❖ NEILSON, ROBERT W., MD; 1999;  
ASST. PROF.; INTERNAL MEDICINE – LUBBOCK
- ❖ OLIVER, JEFFREY WAYNE, MD; 1995; TTUHSC SCHOOL OF MEDICINE;  
ASST. PROF. – HSC; PATHOLOGY – LUBBOCK
- ❖ PHILLIPS, DANA SPEER, MD; 1987; UTMB GALVESTON; ASSOC. PROF. CLINICAL -  
HSC; OB/GYN – LUBBOCK
- ❖ PRABHAKAR, SHARMA S., MD; 1977; GANDHI MEDICAL;  
ASSOC. PROF. - HSC; INTERNAL MEDICINE – LUBBOCK
- ❖ PRABHU, FIONA RITA, MD; 1995; TEXAS A&M UNIVERSITY;  
ASST. PROF.; FAMILY MEDICINE – LUBBOCK
- ❖ RADUCAN, VIOREL, MD; 1985; UNIVERSITY OF MONTREAL;  
ASSOC. PROF. CLINICAL – HSC; ORTHOPAEDICS - LUUBOCK
- ❖ RAGAIN, ROGER M., MD; 1992; UT SOUTHWESTERN;  
DEPT. CHAIRPERSON; FAMILY MEDICINE – LUBBOCK
- ❖ RATNOFF, WILLIAM D., MD; 1978; JOHNS HOPKINS UNIVERSITY;  
ASSOC. PROF.; INTERNAL MEDICINE – LUBBOCK
- ❖ RICHARDS, WILLIAM E., MD; 1992; TTUHSC SCHOOL OF MEDICINE;  
ACADEMIC ASST. PROF. – HSC; OB/GYN – LUBBOCK
- ❖ ROBERTS, JAMES G., MD; 2000; TTUHSC SCHOOL OF MEDICINE;  
INSTRUCTOR, ANESTHESIOLOGY - LUBBOCK
- ❖ ROBINSON, VALERIE, MD; 1975; TTUHSC SCHOOL OF MEDICINE;  
ASST. PROF.; NEUROPSYCHIATRY – LUBBOCK
- ❖ ROSENSTEIN, ALEXANDER D., MD; 1982; UNIVERSITY OF MINNESOTA;  
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