



TEXAS TECH UNIVERSITY  
HEALTH SCIENCES CENTER  
*School of Medicine™*

# Syllabus Blocks and Clerkships

2009-2010

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Office of Curriculum

TEXAS TECH UNIVERSITY HEALTH SCIENCES CENTER  
SCHOOL OF MEDICINE

OFFICE OF CURRICULUM

Syllabus: Blocks, Clerkships, and Year 4 Rotations  
2009 – 2010

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Texas Tech University Health Sciences Center  
 School of Medicine  
 Curriculum 2009 – 2010

	Jul	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
<b>Year 1</b> 41 wks	Clinically Oriented Anatomy											
	Biology of Cells and Tissues			Structure & Function of Major Organ Systems			Host Defense			Basic Medical Spanish		
<b>Year 2</b> 39 wks	General Principles & Integrated Neurosciences			Multisystem Disorders and Cancer			Systems Disorders I			Systems Disorders II and Life Span Issues		
	Basic Medical Spanish						Early Clinical Experience II					
<b>Year 3</b> 48 wks	Pediatrics		Internal Medicine		Family Medicine		Surgery		Psychiatry		Obstetrics/ Gynecology	
	Continuity Clinic											
<b>Yr 3 Focus: Patient Assessment</b>	Integration Seminar											
	Available Time											
<b>Year 4</b> 32 wks	Neuro 4 wks		Subi: Int Med/ Fam Med/ Surgery/ or Peds 4 wks		Critical Care – ER – ICU 4 wks		Elective 4 wks		Elective 4 wks		Elective 2 wks	
	Geriatrics 2 wks		Amb 2 wks		Elective 4 wks		Elective 4 wks		Elective 2 wks		Elective 2 wks	
<b>Yr 4 Focus: ACGME Competencies</b>												
12 wks												



## ***Institutional Educational Vision, Goals, and Objectives***

### **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.

### **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:

- I. 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.
- II. 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.
- III. 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.
- IV. 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.

- V. 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.
- VI. Display the highest standards of professional integrity and exemplary behavior, including compassion, truthfulness, and ethical reasoning.

**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:***

1. Scientific method and its application to problem solving in the basic and clinical sciences.
2. Analytical tools for data collection, quantitative analysis, critical reading and investigation, and evidence-based medicine, and their application to the clinical care of patients.
3. 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.
4. Organization of the health care delivery system and the professional, legal, and ethical expectations of physicians.
5. 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:***

1. 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.
2. Conduct comprehensive and problem-specific physical examinations appropriate to the patients' concerns, symptoms, and history.
3. 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.

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

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

1. Patient care based on evidence, skilled clinical reasoning, and the current state of medical art and science.
2. Patient care that is compassionate and empathic, particularly in settings involving pain management, substance abuse, mental health disorders, or terminal illness.
3. Sensitivity to the diverse factors affecting patients and their health care beliefs and needs, including age, gender, sexual orientation, religion, culture, income, and ethnicity.
4. Demeanor, speech, and appearance consistent with professional and community standards.
5. 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:***

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

## Years 1 and 2

**Overview:** The curriculum of the first two years in the School of Medicine has undergone significant evolution over the past few years. This evolution involved migration from a series of discipline-based courses to an integrated set of blocks. The blocks present information about human biology in a clinically-related format that is integrated between blocks within each year of the curriculum and across years. This strategy is designed to consolidate knowledge throughout the continuum of education, using a combination of didactic sessions, small group encounters and patient-based learning. Major innovations that emerged with the redesigned curriculum included: 1) the use of year 1 to present normal human physiological principles while blocks in year 2 build on and expand knowledge to abnormal physiology and pathology; and 2) the introduction of clinical encounters from early in the curriculum (essentially day 1 of medical school). The SoM is committed to training students who can provide high quality patient care to all members of society and thus there is strong emphasis on topics such as geriatric care and cultural competence throughout the curriculum.

The four didactic blocks of year 1 (Clinically Oriented Anatomy; Biology of Cells and Tissues; Structure and Function of Major Organ Systems; and Host Defense) cover the anatomy of the human body, the structure of the body building from molecular to cells to tissues and finally to organs, and the interactions of the human body with microorganisms. The four didactic blocks of year 2 (General Principles and Integrated Neurosciences; Multisystem Disorders and Cancer; and System Disorders I and II) provide a detailed introduction to the human neurological system and pathological conditions that affect the organ systems introduced in year 1. Two year-long longitudinal blocks, Early Clinical Experience I and II, ensure that students are exposed to patient encounters early in the curriculum and provide an opportunity to learn basic clinical techniques such as the taking of a patient history and physical. Both blocks also introduce societal issues that are critical for effective patient care in the twenty-first century. Finally, all students take an online course in basic medical Spanish to facilitate interactions with patients for whom Spanish is their first language.

**Student Assessment:** The blocks in Years 1 and 2 utilize a variety of methods for assessing student progress. Most of the blocks use a combination of faculty-prepared exams and customized exams from the National Board of Medical Examiners to calculate final grade scores, while the Early Clinical Experience Blocks also utilize structured patient encounters as well as assessment of student professionalism to assign grades. These blocks assign grades using a five-point categorical system of Honors, High Pass, Pass, Marginal and Fail. The Basic Medical Spanish course uses a structured patient encounter to assign grades and only used a Pass/Fail system.

**Assigned Reading:** Textbooks and other reading assignments can be found on the Website of the Office of Curriculum at <http://www.ttuhschool.edu/som/curriculum/booklist0910.aspx>.

## Block Name: Clinically Oriented Anatomy (Y1B1)

**Block Director:** Vaughan Lee, PhD  
**Associate Block Director:** TBN

**Other Faculty involved in course:** Beverly Chilton, PhD; Gail Cornwall, PhD; Bernell Dalley, PhD; Brandt Schneider, PhD; Chip Shaw, EdD; Branislav Vidic, PhD; Harry Weitlauf, MD. ; Jannette Dufour, PhD; Anthony Hewetson (Unit Supervisor);

**Guest Speakers:** David Aronoff, MD; Clint Chambers, MD; Athos Colon, MD; Joehassin Cordero, MD; Cindy Jumper, MD; Michael Owen, MD; Mimi Zumwalt, MD.; Jennifer Mitchell, MD

**Block Goals and Objectives:** (linked to TTUHSC School of Medicine Institutional Vision, Goals, and Objectives). This block provides students with the foundation in anatomy, embryology, and medical imaging necessary for success in the remainder of the curriculum and introduces students to applications of anatomy to the practice of medicine. It includes the traditional content and concepts of gross and developmental anatomy presented in a clinical context, coordinated with introductions to case based presentations and panel discussions with physicians. This block provides an introduction and overview of the human body from a clinical perspective and introduces you to the concept of evidence based medicine and use of independent study, self-directed learning, and deductive reasoning. You will use your cadaver, dissection, and learning skills to gain knowledge and develop attitudes necessary for patient exams and physical diagnosis. The experience in COA will provide the setting for you to begin to develop a professional attitude toward patients, colleagues, and other health care providers. At the completion of the Block 1, the students should be able to:

1. ...describe the gross anatomy of a given structure or system and explain its relationships with other structures or systems. (A1, B1, 4, C4, D3)
2. ...recognize and describe the anatomy of a cross-sectional image and correlate that with normal and abnormal anatomy. (A3, B1-5)
3. ...demonstrate knowledge of human structure on a cadaver or medical image, through dissection and surveys of medical images. (A1-2, B1, 4-6, D3)
4. ...integrate a diverse set of anatomical facts, images, or descriptions and correlate those with different clinical presentations. (A1-2, B1-3, 5, C1, D3)

### Blocks changes for 2009-2010:

Overall, performance in Block 1 Clinically Oriented Anatomy has been very strong the last three years. Based on this and student feedback, our plans are to fine tune the teaching initiatives we are currently utilizing in our Block.

**Lecture:** Utilize web-based lecture videos to supplement integration of Embryology with Gross Anatomy and clinical applications.

**Lab:** Students Teaching Students (STS) Sessions

- Will expand grading to include Honors, Pass and Fail.
- Will have all sessions with peer teaching assigned in pairs.

Unit one now has complete set of in-house Pre-lab videos.

**Total # of Contact Hours, Percent Lecture, and Percent Other (identify types of teaching formats):** 154 contact hours total with 24% lecture, 69% small group dissection, and 7% clinical correlations.

### Grading System

**Formative evaluations:** STS Sessions – students evaluate each other; 3 computerized quizzes

**Summative Evaluations:** 3 computerized exams, 3 lab exams, and 1 National Board Exam

## **Block Name: Biology of Cells and Tissues (Y1B2)**

**Block Director:** Jim Hutson, PhD  
**Associate Block Director:** Daniel Webster, PhD

**Other Faculty involved in course:** Penelope Coates, PhD; Beverly Chilton, PhD; Bernell Dalley, PhD; Charles Faust, PhD; Clinton MacDonald, PhD; John Pelley, PhD; Brandt Schneider, PhD; Ina Urbatsch, PhD; Daniel Webster, PhD; Harry Weitlauf, MD; Sandra Whelley, PhD; Simon Williams, PhD. ; Jeffrey Thomas, PhD.

**Guest Speakers:** Vijay Tonk, PhD;

**Block Goals and Objectives:** (linked to TTUHSC School of Medicine Institutional Vision, Goals, and Objectives). Biology of Cells & Tissues is designed to provide students with fundamental information concerning the traditional areas of biochemistry, genetics, and cell biology. 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 block the students will have gained a foundation requisite for the study of the organ systems offered in the following block and will have learned how to search data bases to supplement their knowledge base and to become life-long learners.

1. Recognize and explain the functions of the key molecular components and steps of the synthesis, assembly, and degradation of biological macromolecules (A1-2)
2. Describe the basic genetic mechanisms of inheritance as they relate to diseases.
3. Describe key features and operating principles of the organization of the human genome, control of gene expression and cell cycle regulation (A1-2)
4. Be able to describe the 5 major tissues and relate their structure to their function (A1-2)
5. Be able to describe the major cellular organelles and relate their structure to their function (A1-2)
6. Demonstrate a professional attitude and good communication skills by effective participation in cooperative problem solving, especially in small group exercises (Histology Labs and Question Analysis Sessions) directed towards understanding the biochemical, cell biological and genetic bases of disease origins, diagnoses and treatments (C4; D2-3)

### **Blocks changes for 2009-2010:**

No major block changes are proposed.

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

Total contact hours (91.5 hr): 72 hr lecture, 18 hr cell biology laboratory, 1.5 hr quizzes; 6 hr lecture exams; 2 hr lab exam.

### **Grading System**

**Formative evaluations:** Quizzes

**Summative Evaluations:** Three section exams and a final exam. The third section exam will be comprised of a written exam and a laboratory exam.

## Block Name: Structure and Function of Major Organ Systems (Y1B3)

**Block Director:** Lorenz Lutherer, PhD  
**Associate Block Director:** TBN

**Other Faculty involved in course:** Guillermo Altenberg, PhD; Pablo Artigas, PhD; Elsa Bello-Reuss, MD; Kathy Chauncey, PhD; Beverly Chilton, PhD; Penelope Coates, PhD; Jannette Dufour, PhD; John Fowler, PhD; Art Freeman, PhD; David Hodges, MD; Jim Hutson, PhD; Leigh Ann Jenkins, MD; Cindy Jumper, MD; Lorenz Lutherer, MD/PhD; Raul Martinez-Zaguilan, PhD; Reid Norman, PhD; Kenneth Nugent, MD; John M. Orem, PhD; John Pelley, PhD; Jose Perez-Zoghbi, PhD; Thomas Pressley, PhD; Samuel Prien, PhD; Rishi Raj, MD; Luis Reuss, MD; Surendra Varma, MD. Visiting experts from other institutions participate on an occasional basis.

- 1. Block Goals and Objectives:** (linked to TTUHSC School of Medicine Institutional Vision, Goals, and Objectives). Students will be expected to perform in a professional manner in terms of their attendance and behavior during educational sessions and in their interaction with fellow students and faculty (V, VI, C4).
- The material presented in this block 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 student is expected to gain a basic understanding of the tissues and organs of the body in terms of their function and interrelationships (IV, A1).
- The various organ systems of the body will be covered through a series of lectures, laboratories, and small group conferences. They include cell, cardiovascular, respiratory, renal, gastrointestinal, and endocrine systems, with an emphasis on an integrative approach to their study. Key to a successful understanding is the learning of basic facts and being able to integrate them into operational systems (IV, A1-2).
- This requires developing the ability to address complex problems in a logical, systematic fashion. While the emphasis is on normal function, the student also will be asked to be able to predict the changes in function that will occur when the requirements for a system change or components of a system fail. Those latter changes represent pathophysiology and form the basis for making a differential diagnosis (III, A3, B3).  
Thus, clinical examples will be used throughout the block to assist the student in seeing the relevance of the material presented and being able to apply their knowledge and skills in the practice of medicine. As part of this process, students will recognize gaps remaining in our present knowledge and acquire the necessary skills to evaluate critically new knowledge and ideas as they are developed (II, B4, D3).
- Recognize the normal histology of all tissues and organs and understand the function of the component cells (A1, B4)
- Appreciate the function of intracellular organelles in various tissues (A1, B4)
- Define, compare and contrast the mechanisms for movement of various molecules across cell membranes (A1, B4)
- Understand the properties of excitable tissue (A1, B4)
- Understand the biochemical pathways important to the function of individual organs (A1, B4)
- Understand the important functions of each organ system (A1, B4)
- Understand the regulatory mechanisms controlling the function of each organ system (A1, B4)
- Predict the changes in function that will occur with new demands placed upon the system (A1-3, B3-4)
- Predict the changes to be expected when some component of the system functions at a different level or its function is compromised (A1-3, B3-4)
- Predict the signs and symptoms to be expected when normal function is compromised (A1-3, B3-4)

15. Construct a simple differential diagnosis for when a normal functional component is compromised  
(A1-3, B3-4)

**Total # of Contact Hours, Percent Lecture, and Percent Other (identify types of teaching formats):**  
Approximately 180; ~65% lecture; 25% small group conferences; 10% laboratories and computer simulations.

**Grading System**

**Summative Evaluations: Five section examinations, a final practical examination and a final cumulative NBME examination**

## Block Name: Host Defense (Y1B4)

**Block Director:** Jane Colmer-Hamood, PhD  
**Associate Block Director:** TBN

**Other Faculty involved in course:** Gordon Brackee, DVM, Robert K. Bright, PhD; W. LaJean Chaffin, PhD; Joe A. Fralick, PhD, Abdul N. Hamood, PhD; Ronald C. Kennedy, PhD; Rial D. Rolfe, PhD; Michael Shearer, MS (laboratory supervision); David C. Straus, PhD; Afzal Siddiqui, PhD

**Guest Speakers:** Steven Berk, MD, Everardo Cobos, MD (Internal Medicine); Richard Lampe, MD (Pediatrics); Sharmila Dissanaik, MD (Surgery); Randall T. Amonett, DDS (VA Dental Services)

**Block Goals and Objectives** (linked to TTUHSC School of Medicine Institutional Vision, Goals, and Objectives). This block introduces both the defense system of the body (the immune system) and the agents that can invade the body and cause disease (medical microbiology). It covers the development of the immune system, effector functions of the immune system in health – defense of the body against microbes, transplanted tissues, and tumors; and the dangers of inappropriate immune responses— allergy, autoimmunity, and immunodeficiency. The block provides a traditional survey of medically important microorganisms, their identification, the mechanisms through which they cause disease, and specific diseases associated with them. Clinical correlations tie the microbes into the organ systems. Patient-oriented problem-solving sessions, vignettes, case studies, and wet laboratory exercises continue the clinical perspective, encourage self-directed as well as cooperative learning. At the completion of Host Defense Block 4, the students should be able to:

1. differentiate between innate and adaptive immune responses and the mechanisms that produce them; and, describe how these two parts of the immune system are inter-related. **(A1, A3, B1, B4)**
2. describe and compare how these responses protect the host from microorganisms, tumors, and other foreign antigens. **(A1, A2, A3, B1, B4, B5)**
3. recognize the dangers of inappropriate immune responses – allergy, autoimmunity and immunodeficiency and connect specific diseases with a particular inappropriate immune response. **(A1, A2, A3, B1, B4, B5)**
4. categorize the organisms that cause disease in humans, list examples of the virulence factors produced by selected microbes and summarize the pathogenic mechanisms used by various organisms to cause disease. **(A1, A2, B4)**
5. describe ways to control microbes, to prevent infection from occurring and to manage infection once it has taken place. **(A1, A2, A3, B1, B3, B4, B5)**
6. analyze a patient case history (vignette) to determine most likely etiologic agent of infectious or immunologic disease, the most appropriate course of action, or other clinically related decisions. **(A1, A2, A3, B1, B3, B4, B5)**

### **Blocks changes for 2009-2010:**

There will be redistribution of material within the block: immunology will be covered completely in the first unit rather than being separated; bacteriology will be spread out to allow more time for comprehension by moving either parasitology or mycology earlier in the block. A clinical correlation on approaches to managing necrotizing infections will be added. Summary sessions placing groups of microbes in organ system context will be provided. We hope to make the online sessions into voice-over powerpoints with diagnostic problems added as relevant.

**Total # of Contact Hours, Percent Lecture, and Percent Other (identify types of teaching formats):**  
~130 contact hours, 64% lecture, and 36% other (team learning, patient-oriented problem solving, case

studies, clinical correlations, laboratory-based exercises, self-directed web-based learning assignments, audience response system, and Q&A-based reviews).

### **Grading System**

**Formative evaluations:** Patient-oriented problem solving (POPS) sessions with in-class case studies that allow the students to search for material outside of the textbooks and class materials; on-line quizzes over the POPS material; identification of unknowns in the laboratory sessions; on-line vignette questions sets; and self-directed learning module(s)

**Summative Evaluations:** 3 block examinations, Custom NBME cumulative final exam.

## Block Name: Early Clinical Experience I (Y1B5; Year-long Longitudinal Block)

**Block Director:** Patti J. Patterson, MD, MPH  
**Associate Block Director:** TBN

**Other Faculty involved in course:** Kelly Bennett, MD; Steve Berk, MD; Mark Boswell MD; Tammy Camp MD; Robert Casanova MD; LaJean Chaffin PhD; Clint Chambers, MD; Andrew Dentino, MD; Richard Dickerson PhD; Paul Douthit PhD; Tommie Farrell MD; Kenn Freedman, MD; Suzanne Graham PhD; Lindsey Gragowski MD; Jack Henry MD; Adaobi Kanu; John Hall MD, JD; Jane Colmer-Hamood PhD; Allan Haynes MD; Jack Henry MD; Craig Horton MD; Marjorie Jenkins, MD; Robert Jennsen MD; Betsy Jones EdD; Kerren Lampe EdD; JoAnn Larson EdD; Stan Lehman, MD; Kit Linton, MD; Shea Madrid, MD; Aretha Marbley MD; Rebecca McDonald MD; Thomas McGovern, PhD; Bernie Mitemeyer, MD; Parastoo Momeni MD; Lesley Motherall MD; Reid Norman PhD; German Nunez PhD; Ralph Nussbaum, MD; Melanie Oblender, MD; B. Olaniran PhD; Rick Peck MD; John Pelley PhD; Billy Philips PhD; Fiona Prabhu MD; Alan Rice, MD; Paul Rogers MD; Rial Rolfe PhD; Sandra Sabatini MD; Robert Schutt MD; Janice Stachowiak MD; Tom Tenner PhD; John Thomas MD; Ron Warner DVM; Simon Williams PhD; Yan Zhang PhD; Mimi Zumwalt MD.

**Block Goals and Objectives:** (linked to TTUHSC School of Medicine Institutional Vision, Goals, and Objectives). Becoming a successful physician is a complex and demanding endeavor. It requires gaining knowledge, analytical skills, communication skills and physical examination skills, as well as assuming various professional roles and responsibilities.

This course is designed to help you

- begin to master the complex skills required to provide medical care
- understand the dynamics of the physician-patient relationship
- understand the importance of the patient's culture, belief system, family and community in the provision of care
- understand the nonmedical factors influencing patients' health status and access to care, including socioeconomic, political, cultural, political, geographic factors
- develop and hone personal attitudes, skills and behaviors required to assume the professional roles and responsibilities of a physician

Through repeated skills practice, participating in the care of patients, experiences in the community and participating in various educational forums, you will begin the life-long journey of becoming not only a skilled practitioner, but a mature and reflective professional.

### Objectives:

By the end of the course, the student should be able to:

1. Demonstrate effective communications skills. Use the following interviewing and communication skills – Establishing Rapport, Collaborative Language, Explicit Caring, Commitment to Patient, Non-directed Facilitation, Silence, Active Listening, Open-ended Questioning, Restating and Summarization, Addressing Feelings with the Patient. (III, B1, C2)
2. Demonstrate ability to gather and record a patient's history. Demonstrate effective patient communication skills by obtaining a chief concern, obtaining a history of present illness, taking a medication and allergy history, recording past medical history, obtaining a family and social history, and obtaining a systems review. (III, B1)

3. Demonstrate skills in basic physical examination. Accurately measure and record vital signs (blood pressure, heart rate, respiratory rate, temperature, and body mass index). Perform and record the physical examination of the following major body systems (head, ears, eyes, nose, mouth, oropharynx, neck, cardiac, pulmonary, and abdominal). Demonstrate appropriate use of the diagnostic tools necessary to perform the examination. (III, B2)
4. Demonstrate effective communication skills with other members of the health care team. Demonstrate skills in communicating medical information orally and in writing. Demonstrate ability to organize and write legible, appropriately formatted entries of pertinent clinical data. Demonstrate ability to communicate effectively with patients, fellow students, clinic staff and faculty.(B1, D2)
5. Demonstrate the highest standards of professional integrity. Demonstrate demeanor, speech and appearance consistent with professional and community standards. Demonstrate dedication to the highest ethical standards governing physician-patient relationships, including privacy, confidentiality, and the fiduciary role of the physician and health care system. (VI, C4, C5)
6. Understand the importance of the following Institutional Themes and their role the practice of medicine – communication and professionalism, cultural competency, geriatrics and population health. Demonstrate sensitivity to the diverse factors affecting patients and their health care beliefs and needs, including age, gender, sexual orientation, culture, income, geography and ethnicity. Demonstrate understanding of the diverse systemic, economic and societal factors impacting health status and access to health care. Demonstrate understanding of the physician's role as a patient advocate. (V, A4, A5, C3, D1, D2)
7. Lifelong learning. Demonstrate skills in self-assessment of personal learning needs and independent identification, analysis and synthesis of relevant information for purposes of lifelong learning, critical assessment of the medical literature, and evidence based medical practice. (II, A1, A2, C1, D3)

**Blocks changes for 2009-2010:**

Last year, an Honors Project was implemented to encourage students to develop projects to improve the health status of rural, West Texas communities. This year, project participation will be open for all students.

**Total # of Contact Hours, Percent Lecture, and Percent Other (identify types of teaching formats):** 96 hours [31% clinic; 25% didactic; 19% small group; 10% workshop; 9% examination/OSCE; 6% community based experiences]

**Grading System**

**Formative evaluations: fall semester OSCE**

**Summative Evaluations: 4 written examinations and the spring OSCE**

## **Block Name: General Principles and Integrated Neurosciences (Y2B1)**

**Block Director:** Art Freeman, PhD

**Associate Block Director:** TBN

**Other Faculty involved in course:** Susan Bergeson, PhD; Michael Blanton, PhD; Mark Boswell, MD; Penelope Coates, PhD; Elizabeth Davidson, MD; John Detoledo, MD; Richard Dickerson, PhD; John Fowler, PhD; Kenn Freedman, MD; Raj Koul, PhD; Lorenz Lutherer, MD/PhD; Stephen Manning, MD; Terry McMahon, MD; Jules Molina, MD; Reid Norman, PhD; Jeffrey Oliver, MD; John Orem, PhD; Michael Phy, DO; Lisa Popp, PhD; Ted Reid, PhD; Valerie Robinson, M.D.; Ali Roghani, PhD; Barbara Sawyer, PhD; Steven Sawyer, PT/PhD; Gregory Schrimsher, PhD; Chip Shaw, EdD; Howard Strahlendorf, PhD; Jean Strahlendorf, PhD; Peter Syapin, PhD; Tom Tenner, PhD; Ron Warner, DVM/PhD; Ben Williams, MD; Rocky Young, PhD.

**Guest Speakers:** Beckie Brawley, RN/BSN; Mark Winter, MD.

**Block Goals and Objectives:** (linked to TTUHSC School of Medicine Institutional Vision, Goals, and Objectives). This Block provides students with the foundation of evidence-based practice, principles of drug action, and autonomic required for the rest of the curriculum. This is followed by the structure, normal and abnormal physiology, neuropathology, and neuropharmacology of the central nervous system. The Block provides students with knowledge to enhance problem-solving, and to establish general relationships between neurological systems and the signs and symptoms of disease. Future physicians acquire fundamental knowledge about mental illness so they can provide the best care possible to their patients. The Block increases future physicians' understanding of and respect for the patient's perspective and promotes self-directed learning in mental illness. At Block's end, students can:

1. Discuss fundamentals of population health, study design (A2), pharmacokinetics, pharmacodynamics, autonomic pharmacology, and neurotransmitter systems (A1-2).
2. Describe the types of cells in neurons and glial cells in the CNS, the embryological origins the major subdivisions of the CNS, and the major neuroanatomical nuclei and pathways of the neuraxis (A1)
3. Explain the anatomy and function of sensory and special sensory systems, and upper and lower motor neurons in motor system function (A1)
4. Use new knowledge of neuroanatomical function and central vasculature to discuss the etiology of case-related neurological signs and symptoms and formulate a differential diagnosis (A1-3)
5. List characteristics of degenerative CNS disorders, and identify the signs and symptoms associated with primary neuropsychiatric syndromes and their major pharmacological treatments (A1-3)
6. Discuss the etiology and course of neuropsychiatric syndromes, and the differential diagnosis and general management of the major psychiatric disorders in adults and children (A1-3, 5)

**Blocks changes for 2009-2010:** Restructured clinical case discussion sessions to enhance integration.

**Total # of Contact Hours, Percent Lecture, and Percent Other (identify types of teaching formats):** ~180 contact hours; 64% lecture; 36% other (clinical correlations, case discussions, patient interviews, laboratories, videos, team-based learning).

### **Grading System**

**Formative evaluations:** Neurojeopardy sessions, Q&A Case Discussions

**Summative Evaluations:** Quiz, Lab Practical, Block Exams (4), NBME Shelf Exam

## **Block Name: Multisystem Disorders and Cancer (Y2B2)**

**Block Director:** Jane Colmer-Hamood, PhD  
**Associate Block Director:** TBN

**Other Faculty involved in course:** Jennifer Mitchell, MD ;Ronald D. Warner, PhD, DVM (Family Medicine); Raed Alalawi, MD; Steven Berk, MD; Everardo Cobos, MD; Nicholas D’Cunha, MD; Fred Hardwicke, MD; Cynthia Jumper, MD; Meryem Kara, MD; Michael P. Phy, DO (Internal Medicine); Rial D. Rolfe, PhD; David C. Straus, PhD (Microbiology & Immunology); Suzanne Graham, MD; Safaa Labib, MD; Elizabeth Miller, MD; Jeffrey Oliver, MD; Barbara Pence, PhD; Leslie Shen, PhD; Irfan Warraich, MD; Pathology Residents (Pathology); Vijay Tonk, PhD (Pediatrics); Michael Blanton, PhD; Richard Dickerson, PhD; J. Barry Lombardini, PhD; Peter Syapin, PhD (Pharmacology); Faustin Stevens, MD; Mimi Zumwalt, MD (Orthopaedic Surgery)

**Block Goals and Objectives:** Beginning with basic pathology principles of injury, inflammation, and repair followed by the clinical concepts of infectious disease and oncogenesis and the development of cancer, this block lays a base for the study of organ system diseases. The block addresses the micro- and macroscopic structural abnormalities, basic pathophysiology, and functional abnormalities of the musculoskeletal, hematopoietic, and lymphoreticular systems. It provides fundamental knowledge of the principles of treatment of infectious diseases, musculoskeletal, hematopoietic and lymphoreticular disorders, and cancer. Exercises in epidemiology, reliability of diagnostic testing, and examination of case-control studies continue the application of evidence-based practice. Clinical correlations, case-based exercises and vignettes provide students with knowledge to enhance problem-solving, and to establish general relationships between the musculoskeletal, hematopoietic, and lymphoreticular systems and the signs and symptoms of disease. At the completion of Multisystem Disorders and Cancer Block 2, students should be able to:

1. describe the common clinical presentation of major diseases, and the underlying alterations of structure and function that are their causes, of the following major organ systems: hematopoietic, lymphoreticular, musculoskeletal. **(A1, A2, A3, B4, B5)**
2. utilize patient history and appropriate laboratory, radiology or other tests to diagnose infectious diseases and cancer in general, and diseases of the hematopoietic, lymphoreticular, and musculoskeletal systems. **(A1, A2, A3, B4, B5)**
3. select and administer therapeutic drugs used to treat infectious diseases, cancer, and specific diseases of the hematopoietic, lymphoreticular, and musculoskeletal systems. **(A1, A2, A3, B4, B5)**
4. apply statistical analysis and principles of evidence-based medicine to recognize the epidemiology of a disease, the usefulness of screening and diagnostic tests, and the appropriateness of data obtained from case-controlled studies. **(A1, A2, A3, B4, B5)**
5. analyze patient case histories (vignettes) in the context of basic and clinical science knowledge of cancer, infectious diseases, and/or the hematopoietic, lymphoreticular, and musculoskeletal systems to determine the etiology of the disease affecting the patient and the most appropriate course of action. **(A1, A2, A3, B4, B5)**

### **Blocks changes for 2009-2010:**

Basic principles of pathology (injury, inflammation and repair; clinical concepts of infectious diseases) and pharmacologic treatment of infectious diseases will comprise the first unit of the block. Unit 2 will begin with medical genetics, oncogenesis and the development of cancer, and clinical concepts of and treatments for cancer. A review of immunologic principles of tolerance, hypersensitivity, and autoimmunity will precede the rheumatologic disorders in unit 2, and an online session covering the diagnostic tests used for rheumatologic diseases will be added. Cytogenetics of cancer will follow the musculoskeletal, hematopoietic and lymphoreticular

systems in unit 3, in order to introduce the cancers affecting these systems prior to the molecular biology of these diseases.

**Total # of Contact Hours, Percent Lecture, and Percent Other (identify types of teaching formats):**  
~104 hours of contact; 64% lecture, 36% alternative format (clinical correlations, team-based learning, laboratory, patient-oriented problem solving, clinical pathology conference, case study sessions, and small groups).

**Grading System**

**Formative evaluations:** quizzes, patient-oriented problem solving sessions

**Summative Evaluations:** 3 block exams and a custom NBME comprehensive final exam; Self-directed assignments for evidence-based medicine/biostatistics component

## **Block Name: Systems Disorders I (Y2B3)**

**Block Director:** J Barry Lombardini, Ph.D.  
**Associate Block Director:** TBN

**Other Faculty involved in course:** Suzanne Graham, MD; PhD; Vivian Mamlok, MD; Christina Samathanam, MD, PhD; Ruc Manh Tran, MD; Irfan Warraich, MD; Jeff oliver, MD; Residents (Pathology); Piaraon Sutthiwan, MD; Gary Meyerrose, MD; Robert Kimbrough, MD; Alex Suarez MD; Ashwani Kumar, MD ; Leigh Ann Jenkins, MD; Kenneth Nugent, MD; Cynthia Jumper, MD; Joseph Hancock, MD; Rishi Raj, MD; Matthew Robinson, MD; David Hodges, MD; Easwaran Variyam, MD; Hamed Al-Tamimi, MD; Sreeram Parapudi, MD; Sharma Prabhakar, MD; Melvin Laski, MD; Meryem Kara, MD; Aliakbar Arvandi; Warang-Kana Chokesuwattanaskul, MD; Raed Alalawi, MD; Steven Berk, MD; Fellows (Internal Medicine); Tom Tenner, PhD; Peter Syapin, PhD; Richard Dickerson, PhD (Pharmacology); Adobi Kanu, MD (Pediatrics); MD; David Van Buren, MD (Urology); John Griswold, MD (Surgery); Ronald Warner, PhD, DVM (Family Medicine).

**Block Goals and Objectives:** (linked to TTUHSC School of Medicine Institutional Vision, Goals, and Objectives).

1. Describe the major diseases, and the underlying alterations of structure and function that are their causes, of the following major organ systems: cardiovascular system; respiratory system including the mediastinum; kidney; and gastrointestinal system, including the pancreas, biliary tract, and liver (A1-2; B5)
2. Correlate the pathological changes in the major organs covered in this block with respect to the normal physiological condition (A1-3)
3. Apply this information in sample clinical scenarios offered in class (B3, D3)
4. Select and administer pharmacological agents in disease states with knowledge of mechanisms of action, toxicities, and possible interactions with other therapeutic agents). Factors such as age and sex that influence pharmacological intervention will be discussed when appropriate (A1-3)

### **Blocks changes for 2009-2010:**

Essentially the same as last year – minor changes in some faculty presenting lectures.

**Total # of Contact Hours, Percent Lecture, and Percent Other (identify types of teaching formats):** 130 hours; Lecture Sessions (74.2%), Large Interactive Group Sessions (1%), Case Studies (9.2%), Laboratory Sessions (4.1%), Clinical Decision Making (2.3%), Small Group Sessions (4.6%), Review Sessions (4.6%)

### **Grading System**

**Summative Evaluations:** In class exams - 4; Comprehensive Final exam

## Block Name: Systems Disorders II and Aging (Y2B4)

**Block Director:** Richard L. Dickerson, Ph.D., DABT  
**Associate Block Director:** TBN

**Other Faculty involved in course:** Raed Alallawi, M.D.; Teresa Baker, M.D.; Dean Steven Berk, M.D.; Jay Bradley, M.D.; Robert Casanova, M.D.; Kathy Chauncey, Ph.D.; Ron Cook, D.O.; Andrew Dentino, M.D.; Cornelia DeReise, M.D.; Richard Dickerson, Ph.D., DABT; Sharmila Dissanaikie, M.D.; Leo Dominguez, M.D.; Deborah Eezzuduemhoi, M.D.; Allan Eisenbaum, M.D.; Lance Evans, Ph.D.; Nagma Farooqi, M.D.; Tommie Farrell, M.D.; Carol Felton, M.D.; Lynn Frame, Ph.D., DABT; Kenn Freedman, M.D., Ph.D.; Kerry Gilbert, Sc.D., PT; Wade Graham, M.D.; Clint Gregg, M.D.; Michelle Hughes, M.D.; Sami Jabara, M.D.; Betsy G. Jones, Ed.D.; J. Barry Lombardini, Ph.D.; Viviane Mamlok, M.D.; David McCartney, M.D.; Steven Mathews, O.D., Ph.D.; Kelly Mitchell, M.D.; Cecelia Moore, M.S.; Thomas Nelius, M.D.; Jeffrey Oliver, M.D.; Jennifer Phy, D.O.; Michael Phy, D.O.; Sharma Prabhakar, M.D.; Samuel Prien, Ph.D.; Michael Ragain, M.D.; Chwan-Li Shen, Ph.D., Cloyce Stetson, M.D.; Cynthia Smith, M.D.; Jennifer Smith, M.D.; Peter Syapin, Ph.D.; Thomas Tenner, Ph.D.; Ruc Tran, M.D.; Cynthia Trotter, M.S.; Surendra Varma, M.D.; Mitchell Wachtel, M.D.; Ron Warner, D.V.M., Ph.D.; Erfan Warraich, M.D.; Michael Wells, M.D.; Edward Yeomans, M.D.; Simon Williams, Ph.D.

**Guest Speakers:** Aretha Marbley, Ph.D. (TTU); Scott O'Banion R.D. (UMC), Ann Thompson, R.D. (private practice)

**Block Goals and Objectives:** The Systems Disorders II and Aging block provides an overview of function, pathophysiology, and treatment of disease processes affecting the endocrine and reproductive systems, the skin, eyes and aging. Traditional lectures are combined with case studies, laboratory and clinical exercises and small group projects to familiarize the student with the clinical presentation, underlying pathophysiology, and treatment of diseases such as diabetes, hypo and hyperthyroidism, osteoporosis, Addison's and Cushing's. Both pharmacologic therapy and the role of nutrition are presented. A similar approach is used to provide fundamental knowledge of both normal reproductive function as well as congenital and pathophysiologic conditions affecting the female and male reproductive organs. The block concludes with presentation of essentials of dermatology, ophthalmology and geriatrics. At the conclusion of Systems Disorders II and Aging the student will be able to:

1. Describe the pathophysiology and treatment of disease processes involving the hypothalamic-pituitary axis, the thyroid gland, the adrenal gland and glucose metabolism (A3, B5)
2. Explain how the principles of nutritional support, eating disorders and disorders of bone and lipid metabolism affect patient care (A3, B5)
3. Describe sexual development and puberty, contraception and fertility, menopause, pregnancy, pathology and treatment of disorders involving the male and female reproductive organs. (A3, B5)
4. Demonstrate a thorough understanding of the pathology and treatment of diseases of the skin. (A3, B5)
5. Recognize the normal structure and function of the eye, diseases of the eye and their treatments (A3, B5)
6. Understand the biology of aging, the 'normal' aging patient, pathophysiology and pharmacology peculiar to the aging patient and multidisciplinary approach to treating disease processes in the elderly. (A3, B5)

### Blocks changes for 2009-2010:

Overall performance in Systems Disorders II and Aging has been strong based upon student performance on the customized NBME final exam. Based upon this and student feedback, we

plan to fine tune the mechanics of teaching and the relative allocation of lecture time to increase the relevance of this block to Step 1.

**Total # of Contact Hours, Percent Lecture, and Percent Other (identify types of teaching formats):** 137 contact hours total with 72% lecture, 7% small group exercises, 3% laboratory exercises, and 18% clinical case studies or correlations

**Grading System**

**Formative evaluations:** three quizzes taken at student's convenience

**Summative Evaluations:** three instructor-written exams, three in-class quizzes, small group projects, and a NBME customized final exam

## **Block Name: Early Clinical Experience II (Y2B5; Year-long Longitudinal Block)**

**Block Director:** Fiona Prabhu, MD  
**Associate Block Director:** TBN

**Other Faculty involved in course:** Approximately 140 community physicians, approximately 13 small group clinical medical faculty facilitators; variety of lecturers

**Block Goals and Objectives:** (linked to TTUHSC School of Medicine Institutional Vision, Goals, and Objectives).

1. Continue to demonstrate effective patient communication skills by obtaining a chief complaint, taking a medication and allergy history, obtaining a history of present illness, recording the past medical history, obtaining a family and social history, and obtaining a systems review. (III)
2. Demonstrate the following interviewing and communication skills – establishing rapport, collaborative language, explicit caring, commitment to patients, non-directed facilitation, silence, active listening, open-ended questioning, echoing or restating and summarization, and addressing feelings with the patient. (B1)
3. Use the following techniques of Reaching Common Ground with patients to negotiate treatment: Checking for agreement, checking for understanding, assessing readiness to change, exploring for additional information to understand patient perspective, making a patient-centered recommendation, brainstorming, reframing, performing elements of decision analysis, setting criteria, and compromise. (B1, C3)
4. Demonstrate sensitivity and professionalism in discussing sensitive matters with a standardized or real patient (e.g., drug/alcohol use, sexuality, mental illness, and domestic violence). (IV, C2)
5. Exhibit respect for each patient's unique needs and background and how they affect the patient's concerns, values, and health care decisions. (D1)
6. Perform a detailed physical examination including vital signs and major body systems (head, eyes, neck, neurological, musculoskeletal exam (range of motion joints, strength & bulk major muscle groups and detailed exams of key joints), cardiac, pulmonary, abdominal), including inspection, palpation, percussion, and auscultation, and demonstrate appropriate use of the diagnostic tools necessary to perform the examination. (III B2)
7. Recognize attributes of effective verbal presentations and be able to present a patient history and physical exam in a clear and concise manner. (B1)
8. Explain the organization of the medical record in the outpatient setting, and write a legible, appropriately formatted entry of important clinical data. (B1)
9. Demonstrate use of at least two on-line references to quickly answer clinical questions during an ambulatory patient visit. (B4)
10. Understand the basic organization of the health care system and the professional, legal, and ethical expectations of physicians and students. (A4)
11. Understand and demonstrate the skills evaluated in the Institutional Communication and Professionalism Evaluation form and demonstrate courtesy and professionalism in interactions with patients, teachers, fellow students, and all other members of the health-care team. (C5 and D2)

**Total # of Contact Hours, Percent Lecture, and Percent Other (identify types of teaching formats):** 74 Hours; (Lectures (20 hours), Workshops (6 hours), Small Groups (14 hours), Community Preceptor Clinics (28 hours))

### **Grading System**

**Summative Evaluations:** 4 quizzes, 2 written exams, 2 OSCEs

## **Block Name: Basic Medical Spanish (Y1-2)**

**Block Director:** Robert Casanova, MD

**Other Faculty involved in course:** None

**Block Goals and Objectives:** (linked to TTUHSC School of Medicine Institutional Vision, Goals, and Objectives). The population of West Texas has a rich cultural heritage – 30% of our patients overall are Hispanic, rising to 80% in El Paso. Communication and professionalism are key elements of our curriculum. As the Spanish-speaking population of the US continues to grow, basic medical Spanish becomes increasingly important for the cultural responsiveness of our medical students to the health care needs of the Spanish-speaking population.

To meet this need the School of Medicine created a web-based course, required of all Year 1 and 2 students, which includes one interactive session in the form of a standardized patient encounter (OSCE) to be completed by December of Year 2

1. Establish rapport by greeting the patient and introducing him/herself to the patient and the patient's family in a culturally appropriate fashion (I, II, IV, B1, B4, C3, D1, D2)
2. Assemble basic demographic information in Spanish (II, IV, B1, B4)
3. Name body parts and basic common diseases in Spanish (II, IV)
4. Assess basic chief complaints, daily activities and medical compliance (II, IV, B3)

### **Blocks changes for 2009-2010:**

1. The dates during which the block must be completed were altered to avoid year-to-year overlap between classes. Thus the date when students must complete Basic Medical Spanish was changed from March of Year 2 to December of Year 2.

**Total # of Contact Hours, Percent Lecture, and Percent Other (identify types of teaching formats):** 15 Hours, all online; textbook optional

### **Grading System**

**Summative Evaluations:** OSCE

**Required textbooks:** Complete Medical Spanish by Joanna Rios (McGraw-Hill)

## Years 3 and 4

**Overview:** The third year of the curriculum consists of six clinical clerkships of eight weeks each, a longitudinal clerkship named the Continuity Clinic and a student-led Grand Rounds named the Integration Seminar. As of 2009, students are assigned to one of the TTUHSC clinical campuses (Amarillo, Lubbock or the Permian Basin) soon after matriculation and will complete their clinical training on their assigned campus. The clinical experiences on each campus are comparable, as defined by the Liaison Committee for Medical Education, and student performance levels are equivalent on all campuses. The six clerkships will provide extensive training in the following areas: Family Medicine, Internal Medicine, Obstetrics and Gynecology, Pediatrics, Psychiatry and Surgery. The continuity clinic is designed to provide longitudinal exposure to patients as a means of training students in the care of patients with chronic conditions, while the Integration Seminar encourages students to apply the knowledge of basic biology and pathology gained in years 1 and 2 to specific clinical scenarios.

The fourth year of the curriculum provides opportunities for students to explore specific areas of interest and to become familiar with the competencies established by the Accreditation Council for Graduate Medical Education. Students are required to complete two rotations, one four week rotation in Neurology and a Two-week rotation in Geriatrics. Students also complete three selective rotations which can be chosen from several different clinical departments. The selectives consist of a two-week Ambulatory experience, and two four week experiences in Critical Care and SubInternship. Sixteen weeks are available for elective rotations that can be performed either on the students' home campus or at away locations (including other TTUHSC campuses. Students will design their fourth year during Year 3 after consultation with Clerkship Directors and the Office of Student Affairs.

**Student Assessment:** Students in Year 3 are assessed via three major grading components in each clerkship. These components consist of a standardized exam prepared by the National Board of Medical Examiners in each subject area, an Observed Structured Clinical Examination (OSCE) and evaluation of clinical performance by faculty and residents. Each clerkship may also assign additional grading components, such as projects. Clerkships are currently graded using a three point categorical system of Honors, Pass and Fail. Although the exact parameters for assigning a final grade of Honors differ slightly between clerkships, all require that students receive an Honors grade in the NBME exam and at least one other major component. The exact details about grade assignment can be viewed in the Core Manuals produced by each clerkship. Assessment in the Continuity Clinic is based on a written exam, OSCEs and additional assignments. The Integration Seminar is graded as Pass/Fail and the grade is based on evaluation of student presentations by attendees.

Grading in Year 4 utilizes the Honors, Pass and Fail system used in clerkships and is based on assessment of student performance by faculty and residents. Year 4 Core Manuals produced by each department contain details on grading in each Year 4 experience.

## Clerkship: Family Medicine

<b>Clerkship Directors by Campus:</b>	Amarillo:	Rodney Young, MD
	El Paso:	Charmaine Martin, MD
	Lubbock:	Fiona Prabhu, MD
	Permian Basin:	Charles Sponzel, MD

### Clerkship Learning Objectives:

1. Assess the patient in the ambulatory setting
  - a. Demonstrate effective verbal, non-verbal, and written communication with the patient and family (B1)
  - b. Elicit a pertinent history (B1)
  - c. Demonstrate the ability to perform a pertinent physical exam (B2)
  - d. Demonstrate the ability to communicate effectively with other members of the health care team (B1)
  - e. Demonstrate the ability to generate a problem list and appropriate assessment of the problem (A3, B3)
  - f. Counsel and educate patients and families about acute illness, chronic illness, harmful personal behaviors/habits, and health maintenance strategies (A5, C3)
  - g. Apply screening protocols based on guidelines and recommendations to identify risks for disease or injury and opportunities to promote wellness across the continuum of the life cycle (A2, B1, C1)
  - h. Perform concise problem-focused presentation of the patient that reflects critical thinking in clinical decision making (A1, A2, B1, B2)
2. 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 (B1)
  - b. Demonstrate the ability to perform a complete physical examination (B2)
  - c. Demonstrate the ability to communicate effectively with other members of the health care team (B1)
  - d. Appreciate the interaction between family medicine and the health care system (consultants, nursing, allied health professionals, social services) (A5, C3, D1, D2)
  - e. Demonstrate the ability to take care of the patient on a daily basis in the hospital setting (B1 - B6)
  - f. Demonstrate the ability to deliver concise and pertinent verbal presentation of the patient's daily care (B1)
3. Appreciate the care of the patient across the continuum of the life cycle
  - a. Demonstrate the ability to educate the patient about disease prevention (C2, C3, D1, D2)
  - b. Understand appropriate health maintenance recommendations by age, sex, and risk (C1)
  - c. Develop an awareness of psycho-social factors that have an impact on wellness and illness of both the patient and their family and incorporate into a management plan (A5, C2, C3)
  - d. Demonstrate respect for all cultures, genders, and ethnicities (C3)
4. Understand common diseases seen by family medicine physicians
  - a. Correctly diagnose diseases commonly seen in the family medicine setting (A2, A3)
  - b. Develop a logical management plan for patient care, based on evidence-based medicine (A1, A2)
  - c. Participate in a chronic disease management plan in partnership with the patient, patient's family, and other health care professionals that enhance functional outcome and quality of life (B1)
5. Appreciate the role of the family medicine physician in the care of the patient in the context of their community and as a member of the general population

- a. Describe social, community, and economic factors that affect patient care (C3)
- b. Describe community based interventions to modify or eliminate identified risks for disease or injury (A4, D2)

**Calculation of Final Grade:**

**Overall Honors Grade:**

- Honors on the NBME
- Honors in clinical evaluation
- No Fail grades
- Pass all "other components"

**Overall Pass Grade:**

- Fail to meet criteria for Honors
- No Fail grades

**Overall Fail Grade:**

- Fail NBME Exam
- Fail Professionalism Component
- Failures of the "other components" are at the discretion of the CD

**Textbooks:**

Essentials of Family Medicine, 5th edition- Sloan; Blue Prints of Family Medicine, 2<sup>nd</sup> Edition; Case Files Family Medicine-Lange; Pre Test Family Medicine-Knutson

## Clerkship: Internal Medicine

<b>Clerkship Directors by Campus:</b>	Amarillo:	Steve Urban, MD
	El Paso:	Dinorah Nutis, MD
	Lubbock:	Robert Neilson, MD; Rebecca McDonald, MD
	Permian Basin:	Ronald Gibbons, MD

### Clerkship Overview:

Medical students will rotate as a clinical clerk on inpatient internal medicine wards and outpatient clinics with a goal of evaluating 24 or more patients in an inpatient setting and attend a series of core classes as well as departmental conferences and morning reports. The student will develop basic competencies in evaluation and management of adult patients, build core knowledge of common diseases seen in Internal Medicine, and acquire clinical skills, professional attitudes, and humanistic qualities needed for the care of Internal Medicine patients.

### Clerkship Learning 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:

1. The basic disease processes commonly seen in Internal Medicine patients as included in the following diagnostic groups: cardiovascular, respiratory, renal, infectious diseases, gastrointestinal, endocrine, hematology/oncology, rheumatology, neurology, general medicine (see Master Data Collection Key for details on diagnostic groups) (A3)
2. The pathophysiology, diagnosis, and treatment of these diseases (A3)
3. Key sources for obtaining current information on issues relevant to the medical management of adult patients (A2)
4. Bioethics of care to include informed consent and advance directives (C2)

#### **SKILLS:** Demonstrate the ability to:

1. Perform and accurately record a complete history and physical examination on an ambulatory and/or hospitalized patient (B1, B2)
2. Perform a focused history and physical examination during a 15 minute ambulatory or emergency center visit (OSCE-type setting) and accurately record the history, pertinent physical findings, assessment with differential diagnosis, and plan for therapy and/or further evaluation (B1, B2)
3. 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 (B1)
4. Construct a problem list with an appropriate differential diagnosis for each diagnostic problem using the data collected in the history and physical examination and with a plan to evaluate and treat each problem (A3, B3, C1)
5. Maintain adequate written records on the progress of illnesses of each assigned patient (B1)
6. Interpret an arterial blood gas, electrocardiogram, chest x-ray, and urinalysis (B5)
7. Perform a computerized literature search to find the best evidence for making decisions about the care of individual patients (A2)
8. Assess the limits of medical knowledge in relation to patient problems (A1, A2)

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

1. 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 (C4, C5, D1)
2. Ongoing efforts to improve clinical knowledge and skills through effective use of available learning resources and life-long self-directed learning (B4, D3)

**Calculation of Final Grade:**

**Overall Honors Grade**

- Honors NBME Exam, and
- Honors in one other major component (either Clinical Evaluation or OSCE) , and
- Pass all "Other Components," and
- No Fail grades

**Overall Pass Grade**

- Does not meet criteria for Honors
- No Fail grades

**Overall Fail Grade**

- Failure of one or more components. See the current TTUHSC Student Affairs Handbook for guidelines

**Textbooks:**

**Required Textbooks:**

- Required textbooks are left to the discretion of the clerkship director. Below are some of the texts in use for academic year 2008-2009:
- Cecil Essentials of Medicine, 7<sup>th</sup> Edition
- First Exposure in Internal Medicine: Ambulatory Medicine and Hospital Medicine

**Basic Textbooks:**

- Harrison's Principles of Internal Medicine, 16<sup>th</sup> Ed. (McGraw-Hill, 2004).
- Cecil Textbook of Medicine, 22<sup>nd</sup> Ed. 2506 pages. (Elsevier Science, 2003).

**Abbreviated Textbooks:**

- Internal Medicine Essentials for Clerkship Students 2007-2008. Customer Service at 800-523-1546, extension 2600 or 215-351-2600. \$49.95.
- Internal Medicine Clerkship Guide, 2<sup>nd</sup> edition, by Paauw, Burkholder, and Migeon (Mosby, 2003).

**Focused Textbooks and References:**

- Rapid Interpretation of EKG's, 6<sup>th</sup> edition, by Dale Dubin, MD (COVER Publishing Company, 2000).
- Felson's Principles of Chest Roentgenology, 2<sup>nd</sup> edition, by Lawrence Goodman MD (W.B. Saunders Company, 1999).

**Study Guides:**

- Step-Up to Medicine by Steven Agabegi, an orthopedic resident, and Elizabeth Derby, a hospitalist (Lippincott Williams & Wilkins, 2005).
- Case Files Internal Medicine by Toy, Parlan, Cruse, and Faustinella (Lange Medical Books/McGraw-Hill, 2004).
- Blueprints in Medicine, Second Edition, 2001, by Young, Kormos, and Goroll (one of the USMLE Steps 2 & 3 Review Series).
- First Aid for the Medicine Clerkship by Stead et al (McGraw-Hill, 2002). Frequently used based on recommendation by 4<sup>th</sup> year students.
- PreTest Medicine, 11<sup>th</sup> Edition by Steven L. Berk, Marjorie R. Jenkins, William R. Davis, and Robert S. Urban.

- MKSAP for Students 3 developed by American College of Physicians and Clerkship Directors in Internal Medicine.
- 101 Biggest Mistakes 3<sup>rd</sup> Year Medical Students Make and How to Avoid Them by Samir Desai, Assistant Professor of Medicine at Baylor College of Medicine (MD2B, 2003).

**Journals:**

- The New England Journal of Medicine. Go to [www.nejm.org](http://www.nejm.org) scan weekly contents free.
- The Journal of the American Medical Association [www.ama-assn.org/jama](http://www.ama-assn.org/jama)
- Annals of Internal Medicine [www.acponline.org](http://www.acponline.org)
- Archives of Internal Medicine [www.ama-assn.org/internal](http://www.ama-assn.org/internal)
- Lancet [www.thelancet.com](http://www.thelancet.com)
- British Medical Journal Free access to entire journal [www.bmj.org](http://www.bmj.org)

## Clerkship: Obstetrics and Gynecology

<b>Clerkship Directors by Campus:</b>	Amarillo:	Usha Sethi, MD
	El Paso:	Heidi Lyn, MD
	Lubbock:	Robert Casanova, MD
	Permian Basin:	Randall Kelly, MD

### Clerkship Overview:

This 3<sup>rd</sup> year Clerkship in OB/GYN is intended to introduce students to knowledge, skills, and attitudes about women and their special conditions and problems. Students will see patients in both outpatient and inpatient settings in order to acquaint them with the female patient (her unique anatomy, physiology, psychosocial make-up, health, and illness issues) and to initiate training in procedural skills, treatment modalities, and preventive medicine that encompass all aspects of female medical care.

### Clerkship Learning Objectives:

1. Adequately completes a full assessment on an obstetric or gynecologic patient
  - a. Establishes an empathic, compassionate alliance in appropriate, professional manner (C2, C3, C4, C5, D1, D2)
  - b. Obtains complete obstetrical/gynecologic history along with a general medical history
  - c. Recognizes relevant physical findings (A3, B2)
  - d. Identifies pathologic conditions in obstetrical/gynecological (A3, B3)
  - e. Formulates differential diagnoses (A3, B3)
  - f. Orders relevant lab/imaging/testing (A3, B3)
  - g. Develops/implements an appropriate treatment plan (A3, B3)
2. Demonstrates ability to provide ongoing care to an obstetrical/gynecological patient
  - a. Maintains a therapeutic, respectful alliance in an appropriate, professional manner (C2, C3, C4, C5, D1, D2)
  - b. Communicates effectively by documentation and/or verbally with patients, families, medical record, other professionals (B1)
  - c. Implements treatment plans (A3)
  - d. Gathers and interprets results of laboratory, imaging, and other diagnostic studies (A3, B5)
  - e. Evaluates compliance with recommended treatments (A1)
  - f. Is familiar with the use of algorithms in treatment of obstetrical/gynecological patients (A1, A2)
3. Understands the management of obstetrical/gynecological emergencies
  - a. Ability to evaluate an obstetrical/gynecological in an emergent situation (B3)
  - b. Identifies signs/symptoms distinguishing an obstetric/gynecologic from non-obstetric/gynecologic emergencies (A3, B3)
  - c. Formulates differential diagnosis (A3, B3)
  - d. Identifies relevant pathology (A3)
  - e. Recognizes need for inpatient, operative, or outpatient management (A1, A2, A3)
  - f. Communicates effectively by documentation and/or verbally with patients, families, medical record, other professionals (B1)
  - g. Is familiar with the use of algorithms in treatment of obstetrical/gynecological emergencies (A2)
  - h. Ability to perform a normal spontaneous vaginal delivery with episiotomy/laceration repair (B6)

- i. Ability to prepare and be a surgical assistant (B6)
4. Integrates obstetrics/gynecology and medicine
    - a. Identifies relevant obstetrical/gynecological concerns that arise in any medical encounter (A3)
    - b. Establishes collaborative relationships between obstetricians/gynecologist and other health professionals (B1, D2)
    - c. Develops awareness of prevalence of obstetrical/gynecologic disorders in medical settings.
    - d. Identifies how obstetrical/gynecological conditions affect medical conditions (vice-versa).
    - e. Demonstrates ability to evaluate patients with obstetrical/gynecological disorders in a respectful and professional manner (C3, C4, C5, D1)
  5. Practices evidenced-based Gynecological care.
    - a. Demonstrates well-rounded knowledge of range of obstetrical/gynecological disorders and treatment including professional, legal, and ethical issues (A4, A5, C1, C5)
    - b. Comes prepared (self-directed study) to participate in scheduled didactic activities (B4, C1)
    - c. Performs evidence-based literature searches (A2, B4, C1)
    - d. Delivers a comprehensive case presentation (B4, C1)
    - e. Expresses understanding of ongoing developments in field of obstetrics and gynecology for ongoing lifelong education (D3)
    - f. Passes the NBME obstetrics and gynecological exam.

**Changes in clerkship content, learning experiences, or teaching formats planned for 2008-2009:**

Clinical Encounter Card Pilot Project  
Cultural Sensitivity in Ob.Gyn project

**Calculation of Final Grade:**

**Overall Honors Grade:**

- Honors NBME Exam
- Honors in one other major component (clinical evaluation or OSCE)
- No Fail grades
- Pass all “other components”

**Overall Pass Grade:**

- Fail to meet criteria for Honors
- No Fail grades

**Textbooks:**

Beckman et al Obstetrics and Gynecology (supplied by OB/GYN Dept)

## Clerkship: Pediatrics

<b>Clerkship Directors by Campus:</b>	Amarillo:	Angelica Chavez, MD
	El Paso:	Marie-Martine Logvinoff, MD
	Lubbock:	Robby Scott, MD
	Permian Basin:	Denise FitzSimon, MD

### Clerkship Learning Objectives:

The goals of this core curriculum are for students to:

- Acquire basic knowledge of growth and development (physical, physiologic and psychosocial) and of its clinical application from birth through adolescence (A3,B2)
- Develop communication skills that will facilitate the clinical interaction with children, adolescents and their families and thus ensure that complete, accurate data are obtained (A5, B1,C4)
- Develop competency in the physical examination of infants, children and adolescents (B2)
- Acquire the knowledge necessary for the diagnosis and initial management of common acute and chronic illnesses (A3)
- Develop clinical problem-solving skills (B3)
- Understand the influence of family, community and society on the child in health and disease (A5)
- Develop strategies for health promotion as well as disease and injury prevention (A4, A5)
- Develop the attitudes and professional behaviors appropriate for clinical practice.
- Understand the approach of pediatricians to the health care of children and adolescents (A4, A5)

**By the time you complete this rotation you will be expected to demonstrate competencies in the following areas:**

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 (B1,D2)
  - b. Appropriate professional behavior (C)
  - c. Tolerance of parent and family differences in attitudes, behavior, and lifestyle (C3)
2. Clinical problem solving skills, including
  - a. Appropriate interpretation of history and physical exam findings (B2,B3)
  - b. Development of an age appropriate differential diagnosis (A3,B3)
  - c. Development of an appropriate diagnostic, treatment, and patient education plan (A3,B3)
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 (B5)
  - b. Ability to perform and interpret the Denver Developmental Screen (B5)
  - c. Ability to conduct an interview with an adolescent (C3,C5)
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
  - a. 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 (B4, D3)
  - b. Ability to do literature searches (A1,A2,C1)
  - c. Interpretation of the literature (A1,A2,C1)

**Calculation of Final Grade:**

**Overall Honors Grade:**

- Honors NBME Exam
- Honors in the Clinical Evaluation
- Pass all “other components”
- No Fail grades

**Overall Pass Grade:**

- Fail to meet criteria for Honors
- No Fail grades

**Textbooks:**

**Amarillo**

Harriet Lane

Pediatrics For Medical Students (with CD)

Nursery Protocol Booklet by Dr. Naqvi

**El Paso**

Pediatrics for Medical Students by Daniel Bernstein and Steven P. Shelov

Neonatal Handbook by Dr. Ipson

**Lubbock**

Pediatrics For Medical Students

Pre Test: Pediatrics by RJ Yetman and Hormann

## Clerkship: Psychiatry

<b>Clerkship Directors by Campus:</b>	Amarillo:	Stacia Lusby, MD
	El Paso:	Dan Blunk, MD
	Lubbock:	Valerie Robinson, MD
	Permian Basin:	Stephanie Caples, PhD

### Clerkship Learning Objectives:

1. Performs an appropriate psychiatric interview and evaluation including mental status exam and MMSE (A3, B2)
2. Formulates an appropriate differential diagnosis and DSM IV multi axial assessment (A3, A5, B3, D1)
3. Demonstrates familiarity with tests and procedures that facilitate diagnosis and treatment of psychiatric patients (A2, B1, B5)
4. Recognizes common psychiatric syndromes, being mindful of cultural and developmental factors that may affect the manifestation of psychiatric illness (A5, C1, D1)
5. Relates to patients and their families in a psychotherapeutic manner, being mindful of cultural and developmental factors that may affect how such interventions are received by patients and families (A5, B1, C1, C2)
6. Demonstrates an understanding of each class of psychotropic medications and the principles of different psychosocial therapies (A3, B3)

### Calculation of Final Grade:

#### Overall Honors Grade:

- Honors on the NBME
- Honors in one other component (Clinical Evaluation or OSCE)
- No Fail grades
- Pass all "other components"

#### Overall Pass Grade:

- Fail to meet criteria for Honors
- No Fail grades

#### Overall Fail Grade:

- Fail in one or more Component

### Textbooks:

The pocket sized Diagnostic and Statistical Manual IV (DSM-IV), the psychiatric textbook Kaplan & Sadock's Synopsis of Psychiatry Behavioral Sciences/Clinical Psychiatry, 10<sup>th</sup> edition, and the pocket sized psychiatry textbook David A. Tomb's House Officer Series, 7<sup>th</sup> edition will all be loaned to each student.

## Clerkship: Surgery

<b>Clerkship Directors by Campus:</b>	Amarillo:	Dennis Dove, MD
	El Paso:	Susan McLean, MD
	Lubbock:	Sam Campbell, MD
	Permian Basin:	Russell Van Husen, MD

### Clerkship Overview:

This surgical clerkship is an integrated, clinical educational experience designed to introduce the student to the basic concepts of the disciplines which constitute the practice of Surgery. This clerkship encompasses both inpatient and outpatient experiences. For those students who do not pursue a career goal in Surgery, these experiences will form the basis for their surgical interactions and patient care in all other medical specialties.

### Clerkship Learning Objectives:

The **Learning Goals and Objectives** of the MSIII Core Clerkship in Surgery are presented in fulfillment of the **TTUHSC School of Medicine Institutional Vision, Goals, and Objectives**. These **Learning Goals** are also framed in the context of the **ACGME General Competencies**.

During this surgical clerkship the student is expected to demonstrate the progressive development of proficiency in knowledge, and skills, in the following areas:

#### I. General Clinical Core Competencies:

Achieve the specific **Learning Objectives**; demonstrate the specific **Skills, Attitudes & Professional Behavior** in the **Core Clinical Competencies** as presented in Section II – Curriculum/Core Clinical Competencies of the online Core Manual. (A1-5, B1-5, C1-5, D1-3)

#### II. Core Surgical Knowledge:

The topics which constitute **Core Surgical Knowledge** have been accepted by the Clerkship Directors and Chairs of each campus based on material presented by the Association of Surgical Educators, the Association of Surgery Program Directors, and the core material tested through subject examinations prepared by the National Board of Medical Examiners. (A1-5, B1-6)

Educational theory pertinent to “Adult Learning” recognizes that all learners benefit from having material structured such that they can use more than one type of “intelligence” in trying to understand the material and then store it. (B4, D1-3)

The topics included in this **Core Surgical Knowledge** are each linked to different resources which permit the student to utilize a variety of “intelligences” in the acquisition of this material. Faculty led review seminars, faculty and resident didactic presentations, small group focused discussions, student presentations, access to clinical presentations and facilitated modeling are made available to each student during this clerkship. **Individual self study in order to acquire this Core Surgical Knowledge is emphasized.** (A3, B4-5, C1-3)

This Core Surgical Knowledge has been organized into **Learning Modules** which have been grouped so as to provide a weekly focus of attention. A faculty led two hour weekly seminar culminates this focus, and the student is provided opportunity for study and review by completing a USLME based online examination tied to the **Learning Modules**. [The student receives credit only for self assesment, scores are not recorded.] (A3, B4-5, C1-3)

If grouping by Learning Modules is not used by a specific campus the **Core Surgical Knowledge** remains the same as is its varied manner of presentation and resource linkages.

**Core Surgical Knowledge** is provided in Section II – Curriculum/ Core Surgical Knowledge of the on line Core Manual.

**Resource Assignments** linked to the **Core Surgical Knowledge** are included in a separate section of the online Core Manual.

### **III. Essential Conditions/ Symptoms/Signs in the Surgical Patient: Diagnosis and Management:**

Achieve the specific **Learning Objectives**; demonstrate the specific **Skills** and **Attitudes & Professional Behavior** in the Diagnosis and Management of the Surgical Patient presenting with **the Essential Conditions/Symptom/Signs** as presented in Section II – Curriculum/ Essential Conditions/Symptoms/Signs of the online Core Manual. (A1-5, B1-6, C1-5, D1-3)

### **IV. Patient evaluation, pre and post operative management:**

- a) Consistently obtain a reliable and organized patient history and physical examination, and record these in an accepted format. (B1-3, C2-5)
- b) Develop a problem list, differential diagnosis, and plan of treatment. (A1-3, B1)
- c) Present pertinent findings therapeutic alternatives, and the rationale for selection for the diagnostic studies to be obtained for each patient examined, to the attending faculty surgeons and student colleagues. (B1, B5, C4-5)
- d) d) Actively participate in, pre operative preparation, post operative management, diagnostic maneuvers and decision making regarding patients examined/evaluated. (B6, C1-5, D1-3)
- e) Formulate appropriate management orders and record daily progress of the patient in the problem oriented medical record (POMR)/(SOAP) format. (A1, B1, B3, B5, C1-5)
- f) Enter into the patient record, routine admission and post operative orders after consultation with the attending faculty.(A1, B1, B3, B5, C1-5)

### **V. Operative Experience: (A1-5, B6, C1-5, D1-2)**

- a) Demonstrate knowledge of surgical scrub, sterile technique, proper conduct and attire in the operating room.
- b) Observe and participate in the operative procedure(s) on all patients personally examined / evaluated.
- c) Demonstrate understanding of the principles of tissue response to injury, and wound healing.
- d) Develop proficiency in the handling of tissues, techniques of wound closure, and the selection of suture materials appropriate to the clinical situation.
- e) Demonstrate familiarity with the conduct and flow of a surgical procedure.
- f) Demonstrate knowledge of the proper usage of common surgical instruments.

### **VI. Surgical Critical Care: (A1-5, B6, C1-5, D1-2)**

- a) Identify the surgical patient who would benefit from focused Critical Care.
- b) Understand the physiologic parameters which provide the basis for monitoring in the Surgical Critical Care Unit
- c) Be familiar with the indications, requirements, methodologies and equipment available for monitoring the hemodynamic, cardiac and respiratory status of critically ill surgical patients.

- d) Interpret the data available from hemodynamic, cardiac and respiratory monitors and apply this data base to patient management.

**VII. Management of The Trauma Patient: (A1-5, B6, C1-5, D1-2)**

- a) Perform initial evaluation of a traumatized patient and be capable of providing the priorities of management.
- b) Demonstrate knowledge of fluid management and resuscitation of the patient with burn or shock following trauma.
- c) Demonstrate knowledge of the principles which govern definitive care of the patient with trauma.

**VIII. Outpatient Care of the Surgical Patient (A1-5, B6, C1-5, D1-2)**

- a) Perform initial and follow-up outpatient evaluations and record them in the format unique to the outpatient setting.
- b) Become familiar with and demonstrate, where appropriate, the various outpatient procedures and practices unique to a given surgical specialty.

**IX. Evidenced Based Practice of Surgery (A1-5, B1, B4, C1-5, D1-3)**

1. Understand the concept of EBM and its relevance to current surgical practice.
2. Be capable of formulating a PICO question in order to begin the search for information relevant to the clinical topic.
3. Demonstrate search skills using a PICO question and acquire results applicable to the provision of clinical surgical care.
4. Demonstrates understanding of and utilization of the elements necessary for the critical evaluation and appraisal of data to be applied to the clinical situation.

**Changes in clerkship content, learning experiences, or teaching formats planned for 2008-2009:**

[Click here to enter text.](#)

**Calculation of Final Grade:**

**Overall Honors Grade: Attainment of Honors on two of the three major components with a pass on the third.**

**Overall Pass Grade: Attainment of pass on the three major components**

**Overall Fail Grade: Attainment of Fail on two of the three major components**

**Textbooks:**

As provided in Resource Links to Core Surgical Knowledge.

## Clerkship: Continuity Clinic Experience (Year Long Longitudinal Clerkship)

<b>Clerkship Directors by Campus:</b>	Amarillo:	Steve Urban, MD and Frank Hromas, MD
	El Paso:	Eribeth Penaranda, MD
	Lubbock:	Mike Ragain, MD
	Permian Basin:	Peter Beale, MD

### Clerkship Overview:

Within the Continuity Clinic, all MSIII students are assigned to a faculty mentor in one of the three clinical areas listed above in an ambulatory clinic for the academic year. Students are excused from their regular clerkships for two afternoons per month from September through mid-June (either the 1st and 3rd weeks or the 2nd and 4th weeks) to see clinic patients under the supervision of their faculty mentor. Students develop their own panel of patients during the year, with opportunities for multiple visits and exposure to continuing care and patients with chronic medical conditions. In addition, each afternoon session offers opportunities for didactic experiences, usually among the groups of students assigned to each clinic. Didactic teaching addresses both clinical and non-clinical topics, with special emphasis on doctor-patient communication and developing continuing patient relationships.

### Clerkship Learning Objectives:

#### Overall Goals:

Build on patient assessment skills of ECE I and II  
Strengthen focused assessment  
Focus on student-patient relationship  
Provide close faculty mentoring

**Specific Goals:** Students will develop Longitudinal Healthcare Skills including the following:

Develop communication skills necessary for effective patient-centered care over time  
Acquire expertise in screening and preventive care  
Develop systems-based practice with own panel of patients  
Learn diagnosis and management of urgent office problems  
Learn diagnosis and management of common undifferentiated office problems  
Strengthen professionalism

### Learning Objectives

Longitudinal Skills. By the end of the rotation the student will be able to:

- Utilize the chronic care model in the delivery of patient care. (I; A2, B2, B3)
- Use a registry to track effectiveness of health care and to plan further interventions. (I; A2, A3, A4, B3, B4, B6, C1)
- Demonstrate methodical stepped evaluation and treatment of patients considering patient values, cost, effectiveness and side effects or complications. (I; A3, A5, B3, C3, D1)
- Describe the evolution of disease processes over time. (I; A2, A3, B1)
- Demonstrate skills for the long-term management of health and illness. (I; B3)
- Develop rapport with patients and assume responsibility for their patients. (V; C2)

Communication. By the end of the rotation the student should be able to:

- a. Demonstrate culturally appropriate care, including alternative therapies and treatments. (V; B1, C3, D1)
- b. Demonstrate obtaining a medical history using a translator. (III, V; B1, C3, C4)

- c. Use Prohaska Stages of Change in counseling patients on life style changes. (I; A5, B3, B6, C1, C2)
  - d. Demonstrate strategies for effectively communicating and managing “difficult” patients. (V; B1, C2, C3, C4, D1, D2)
1. Screening and preventive aspects of adult health. By the end of the rotation the student should be able to:
- e. Describe criteria for key screening tests (I; A2, A3, A4, B5, B6)
  - f. Describe types of routine preventive health care (i.e., cancer screening, etc); utilize vaccines appropriately (I; A2, B2, B5, B6)
  - g. Counsel patients about smoking cessation, weight loss, alcohol cessation, contraception, and exercise. (I; A5, B1)
  - h. Apply up to date guidelines re periodic health assessment (II, IV; B4, D3)
  - i. Assess your own practice for adherence to recommended guidelines. (II; A2, A4, C5, D1, D2, D3)

Systems-based practice. By the end of the rotation the student should be able to:

- j. Describe methods for systematically improving medical practice ( II; B3, B5)
- k. Demonstrate the use of quality improvement techniques to improve your outpatient practice. (II, B4, D3)

Diagnosis and management of common *urgent* medical problems of ambulatory patients. By the end of the rotation the student should be able to:

- l. Demonstrate obtaining and recording pertinent history, physical exam, and laboratory findings. (III; B2, B3, B5)
- m. Describe the appropriate workup in this setting and begin to demonstrate current treatment and management guidelines for diseases common to each clinic setting (IV; A3, B1, B3)

Diagnosis and management of common undifferentiated medical problems of ambulatory patients. By the end of the rotation the student should be able to:

- n. Describe the approach to undifferentiated problems present in the ambulatory setting. (III; B2, C1, C2, C3)
- o. Demonstrate obtaining and recording pertinent history, physical exam, and laboratory findings; and demonstrate current treatment and management guidelines for undifferentiated syndromes common to each clinic setting (III, IV; B3, B5)

Professionalism By the end of the rotation the student should be able to:

- p. Describe the role and responsibility of the physician in society. (VI; C1, C2, C5, D1, D2, D3)
- q. Serve as key contact person for patient issues for patients from your panel. (I; B3)
- r. Complete patient care activities in a timely fashion. (III; B6, C5, D2)

#### **Grading System Components:**

- All-campus OSCEs
- Written Final Exam
- Patient Logs
- Chart review

## **Course: Integration Seminar (Y3)**

### **Course Directors by Campus:**

Amarillo:	Steve Urban, MD
El Paso:	Quentin Eichbaum, MD, PhD, MPH
Lubbock:	Patricia Aristimuno, MD and Kendra Rumbaugh, PhD
Permian Basin:	David Baldwin, MD

### **Course Overview:**

The Integration Seminar is a Student Grand Rounds presented by MSIII students on each campus. The overarching objective of the seminar is to provide students with the opportunity to explore in depth a clinical case and to reapply the knowledge gained over the first two years of medical school to this case. The students work as a team to present a cogent, integrated and interactive seminar to their peers, students from other years and faculty while developing their presentation skills and their ability to interpret and evaluate data from multiple sources. The directors of the Integration Seminar choose the cases and the students are divided into six groups, each of which is assigned one case. The Integration Seminar occurs once per clerkship period, thus each student will have one seminar assignment total, but are expected to attend and participate in the other five seminars. Attendance is compulsory for all MSIIIs and a sign-in sheet will be provided. The Directors advise the students on interpretation and presentations skills and coordinate the seminar to ensure participation of the greatest number of students and faculty in the audience.

### **Learning Objectives:**

- Apply principles and advances of current basic science research to actual patient problems.
- Review relevant basic science concepts.
- Organize a Student Grand Rounds session that promotes effective interactive student learning.
- Provide an in-depth evidence-based case discussion on a selected component of the team's Student Grand Rounds.
- Provide experience in preparing and executing a formal seminar.

### **Changes in course content, learning experiences, or teaching formats planned for 2009-2010:**

This course will be graded as Pass/Fail.

### **Grading System Components:**

The Integration Seminar is graded as Pass/Fail.

### **Textbooks:**

Students will access current literature resources and distill information for inclusion in their presentations.

**Date of last Triennial Review:** None

## **Year 4 Rotations, Selectives and Electives**

Descriptions of these courses can be accessed on the Office of Curriculum Website at:

<http://www.ttuhs.edu/som/curriculum/year4/>