



TEXAS TECH UNIVERSITY
HEALTH SCIENCES CENTER
School of Medicine™

Syllabus

Blocks, Clerkships, and
Year 4 Rotations

2008 - 2009

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TEXAS TECH UNIVERSITY HEALTH SCIENCES CENTER
SCHOOL OF MEDICINE

OFFICE OF CURRICULUM

Syllabus: Blocks, Clerkships, and Year 4 Rotations
2008 – 2009

Table of Contents

Curriculum Template 2008-2009	3
Institutional Educational Vision, Goals and Objectives	4
Year 1	
Clinical Oriented Anatomy	7
Biology of Cells and Tissue	8
Structure and Function of Major Organ Systems	9
Host Defense	10
Early Clinical Experience I	12
Year 2	
General Principles and Integrated Neurosciences	14
Multisystem Disorders and Cancer	15
Systems Disorders I	17
Systems Disorders II and Life Span Issues	18
Early Clinical Experience II	19
Year 3	
Family Medicine	21
Internal Medicine	23
Obstetrics & Gynecology	25
Pediatrics	27
Psychiatry	30
Surgery	32
Continuity Clinical Experience.....	36
Integration Seminar.....	38
Year 4	39
Required and Elective Rotations	

**Texas Tech University Health Sciences Center
School of Medicine
Curriculum 2008 – 2009**

	Jul	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
Year 1	Clinically Oriented Anatomy			Biology of Cells and Tissues			Structure & Function of Major Organ Systems			Host Defense		
	Early Clinical Experience I											
Year 2	General Principles & Integrated Neurosciences			Multisystem Disorders and Cancer			Systems Disorders I			Systems Disorders II and Life Span Issues		
	Early Clinical Experience II											
Year 3	Pediatrics		Internal Medicine		Family Medicine		Surgery		Psychiatry		Obstetrics/ Gynecology	
	Continuity Clinic											
	Integration Seminar											
Year 4	Sub Internship: Int Med/ Fam Med/ Surgery/ or Peds 4 wks		Neurology		Ambulatory 2 wks		Critical Care – ER – ICU		Elective		Elective 2 wks	
			4 wks		Geriatrics 2 wks		4 wks		4 wks		4 wks	
	4 wks		4 wks		4 wks		4 wks		4 wks		4 wks	

05/16/08



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.

YEAR 1 BLOCKS

Block 1: Clinical Oriented Anatomy

Block Leader: Vaughan H. Lee PhD

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.

Guest Speakers: David Aronoff, MD; Clint Chambers, MD; Athos Colon, MD; Joehassin Cordero, MD; Michael Shaffer, MD; Cindy Jumper, MD; Michael Owen, MD; Mimi Zumwalt, 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 2007-2008:

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:

- Exams
 - All written exams will be administered by computer on WebCT.
 - Feedback will be available immediately following exam.

Lab:

- In-house dissector has been edited to improve dissection instructions
- STS Sessions (keep at 15)
 - New Pre-lab videos and dissector.
 - Will evaluate utilization of peer teaching in pairs.
- Developing more 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 components: Categorical: **Honors, High Pass, Pass, Marginal, and Fail**

Required textbooks: <http://www.ttuhsoc.edu/som/curriculum/booklist0708.aspx>

Date of last Triennial Review: 2006-2007

Block II: Biology of Cells and Tissues

Block Director: Jim Hutson, 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; Vijay Tonk, PhD; Ina Urbatsch, PhD; Daniel Webster, PhD; Harry Weitlauf, MD; Sandra Whelley, PhD; Simon Williams, 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 (Links to the Vision of the institution and to Institutional Goals II and IV).

1. Recognize and explain the functions of the key molecular components and steps of the synthesis, assembly, and degradation of biological macromolecules; (I, II, IV, A1-2)
2. Recall and relate the molecular structures and chemical properties of biological macromolecules to their functions including ligand/substrate recognition, enzyme reactions, formation of multi-molecular complexes; and regulation; (I, II, IV, A1-2)
3. Relate digestive processes and body production of usable and storable chemical energy to the chemical composition of foodstuffs, including vitamin and nutrient requirements; (I, II, IV, A1-2)
4. Describe the inputs and outputs of human intermediary metabolism, and relate mechanisms of metabolic regulation by hormones, feedback loops and other mechanisms to body organ systems and their demands for energy and metabolites; (I, II, IV, A1-2)
5. Recognize and explain the molecular basis of major body mechanisms for self-recognition and self-defense including blood factors, antibodies, anti-oxidants, hemostasis, and glucose homeostasis; (I, II, IV, A1-2)
6. Describe key features and operating principles of the organization of the human genome, control of gene expression and cell cycle regulation; (I, II, IV, A1-2)
7. Be able to describe the 5 major tissues and relate their structure to their function. (I, II, IV, A1-2)
8. Be able to describe the major cellular organelles and relate their structure to their function. (I, II, IV, A1-2)
9. Be able to identify the 5 tissues and relate their structure to their function. (I, II, IV, A1-2)
10. Relate knowledge of normal bio-molecular structure-function relationships, metabolic and regulatory processes, and defense mechanisms to the molecular basis, diagnosis and treatment of diseases; (II, IV, B4-6)
11. Recognize and explain the sources, detection and consequences of genetic defect(s) underlying diseases; (II, IV, B4-6)
12. 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. (V, VI, C4, D2-3)

Blocks changes for 2008-2009: Continue to improve integration and teaching formats.

Total # of contact hours, percent lecture, and percent other (identify types of teaching formats): Total contact hours (91.5 hr): 60 hr lecture, 6 hr Team Based Learning; 22 hr cell biology laboratory, 1.5 hr quizzes; 10 hr lecture exams; 2 hr lab exam.

Grading system components: Honors, High Pass, Pass, Marginal, Fail. There will be three section exams and a final exam. The third section exam will be comprised of a written exam and a laboratory exam. **Required texts:** <http://www.ttuhschool.edu/som/curriculum/booklist0708.aspx>

Date of last Triennial Review: 2005-2006

Block III: STRUCTURE AND FUNCTION OF MAJOR ORGAN SYSTEMS

Block Director: Lorenz Lutherer, PhD

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; Surrendra Varma, MD. The block also takes advantage of visiting experts from other institutions on an occasional basis.

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

1. 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).
2. 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).
3. 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).
4. 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).
5. 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).

Each lecture presented during the block will have specific objectives relating to the material presented in that lecture. The following general objectives will apply to all of the sections.

1. Recognize the normal histology of all tissues and organs and understand the function of the component cells (A1, B4).
2. Appreciate the function of intracellular organelles in various tissues (A1, B4).
3. Define, compare and contrast the mechanisms for movement of various molecules across cell membranes (A1, B4).
4. Understand the properties of excitable tissue (A1, B4).
5. Understand the biochemical pathways important to the function of individual organs (A1, B4).
6. Understand the important functions of each organ system (A1, B4).
7. Understand the regulatory mechanisms controlling the function of each organ system (A1, B4).
8. Predict the changes in function that will occur with new demands placed upon the system (A1-3, B3-4).
9. 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).
10. Predict the signs and symptoms to be expected when normal function is compromised (A1-3, B3-4).
11. Construct a simple differential diagnosis for when a normal functional component is compromised (A1-3, B3-4).

Block changes for 2008-2009:

- Section leaders have changed and new faculty have been added.
- Lectures and small group conferences have been condensed and refocused to emphasize the essentials.
- Exposure to vignette-type questions and discussion of the approach toward answering them will be included in the formal sessions.
- The material presented in the block will be reviewed prior to the final exam during three 4-hour sessions reviewing USMLE questions over the material.
- The final examination will be a shelf examination from the National Board of Medical Examiners using the format of the USMLE Step 1 exam.
- PowerPoint's from lectures will be available in printable format with the understanding that these are to be used for educational purposes only and will not be made available by students to anyone else.
- Students will be expected to complete on-line evaluations of the block periodically.

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 components:

Five section examinations, a final practical examination and a final cumulative NBME examination.

Required textbooks:

Several new textbooks have become available in the last two years, and they are being evaluated by the faculty. A final decision will be announced well before the start of the block.

Date of last Triennial Review: 2005-2006

Block IV: HOST DEFENSE

Block Director: Jane Colmer-Hamood, PhD

Other faculty involved in course:

Microbiology and Immunology

Gordon Brackee, DVM
Robert K. Bright, PhD
W. LaJean Chaffin, PhD
Abdul N. Hamood, PhD
Ronald C. Kennedy, PhD
Rial D. Rolfe, PhD
Michael Shearer, MS
David C. Straus, PhD
Afzal Siddiqui, PhD

Surgery

Steve H. Daugherty, MD

Internal Medicine

Steven Berk, MD
Everardo Cobos, MD

Pediatrics

Richard Lampe, MD
Jeremy Franklin, MD
David Waagner, MD
VA Dental Services
Randall T. Amonett, DDS

Other faculty may be also be involved

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

THE IMMUNE SYSTEM AND IMMUNOLOGY

GOALS: that the medical student will

1. Understand the distinction between innate and adaptive immunity as well as the inter-relatedness of these two parts of the immune system. **I**
2. Understand immunogenicity and the role of antigens, immunogens, and haptens in the development of the cell-mediated and adaptive immune responses. **I**
3. Know the mechanisms through which the immune response is produced and the products of the immune responses (innate and adaptive). **I**
4. Recognize the contribution of immunity to the defense of the body against microbes, transplanted tissues, and tumors. **I, II, IV**
5. Appreciate the dangers of inappropriate immune responses—allergy, autoimmunity, and immunodeficiency. **I, II, IV**
6. Know which infections are preventable by vaccine, become aware of problems associated with vaccines, and become familiar with new approaches to vaccine development. **I, II, IV**

OBJECTIVES: that the medical student should be able to

1. Describe the mechanisms through which the immune responses are produced and name the molecules, cells and organs involved in the immune responses. **A1**
2. Differentiate innate immune responses from adaptive immune responses and describe how these responses are inter-related. **A1, A3, B1, B4**
3. Compare the adaptive humoral immune responses to the cell-mediated immune responses and describe how these responses protect the host from microorganisms, tumors, and other foreign antigens. **A1, A2, A3, B1, B4, B5**
4. Differentiate among the hypersensitivity responses. **A1, A2, A3, B1, B4, B5**
5. Describe the mechanisms leading to autoimmune responses. **A1, A2, A3, B1, B4, B5**
6. 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**
7. 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, B4, B5**

MEDICAL MICROBIOLOGY

GOALS: that the medical student will

1. Know the types of organisms that cause disease in humans. **I**
2. Appreciate the role of normal flora in protection from exogenous microbes and in causing endogenous infections. **I, II, IV**
3. Understand the virulence factors produced and the mechanisms used by various organisms to cause disease. **I**
4. Know the types of host immune responses generated against specific types of organisms (bacteria, viruses, fungi, and parasites). **I, II, IV**
5. Understand the types of tests used for diagnosis of infectious diseases. **I, II, IV**
6. Learn ways to control the organisms to prevent infection from occurring or to manage infection once it has taken place. **I, II, IV**

OBJECTIVES: that the medical student will be able to

1. Distinguish endogenous microbes (normal flora) from exogenous microbes. **A1, A2, B4**
2. Explain the role of normal flora in protection from exogenous microbes, development of appropriate immune responses, and in causing endogenous infections. **A1, A2, B4**
3. Categorize the organisms that cause disease in humans. **A1, A2, B4**
4. Give 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 the host responses to bacteria, viruses, fungi and parasites, and differentiate these among the responses to intracellular versus extracellular pathogens, bacteria compared to fungi and viruses. **A1, A2, A3, B1, B3, B4, B5**

6. 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**
7. Describe the major tests used for differentiation of microorganisms and for diagnosis of infectious diseases and interpret data from these tests. **A1, A2, A3, B1, B3, B4, B5**
8. 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 2008-2009:

- The immunology sessions will be geared toward understanding the immune responses to different microorganisms, hypersensitivity responses, autoimmunity, and immunodeficiency in context of the development of the immune system and the tools used to study immune responses.
- A revised introduction to the study of microbiology to guide students in putting the information into a conceptual framework that will lead to long-term retention
- Additional formative vignette question sets over immune responses (to microbes, hypersensitivity, autoimmunity, and immunodeficiency), mycology and virology
- Revision of the bacteriology laboratory sessions into separate sessions for half the class at a time to provide less confusion and greater interaction with the faculty

Total # of contact hours, percent lecture, and percent other (identify types of teaching formats): ~130 contact hours, 65% lecture, and 35% other (team learning, patient-oriented problem solving, case studies, clinical correlations, laboratory-based exercises, and self-directed web-based learning assignments).

Grading system components: Summative: 3 block examinations, Custom NBME cumulative final exam. **Formative:** 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)

Required textbooks:

<http://www.ttuhsu.edu/som/curriculum/booklist0708.aspx>

Date of last Triennial Review: 2007-2008

Year Long Longitudinal Block: EARLY CLINICAL EXPERIENCE I

Block Director: Patti J. Patterson, MD, MPH

Other faculty involved in course: Lynn Bickley MD; Mark Boswell MD; Tammy Camp MD; Robert Cassanova MD; LaJean Chaffin PhD; Andrew Dentino, MD; Paul Douthit PhD; Tommie Farrell MD; Kenn Freedman, MD; Suzanne Graham PhD; Lindsey Gregowski 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; Rebecca McDonald MD; Thomas McGovern, PhD; Parastoo Momeni MD; Lesley Motherall MD; Reid Norman PhD; German Nunez PhD; Rick Peck MD; John Pelley, PhD; Fiona Prabhu MD; Bill Ratnoff 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; Yan Zhang, PhD; Mimi Zumwalt MD.

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

1. 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, Echoing or Restating and Summarization, Addressing Feelings with the Patient (derived from the Common Grounds Communications series). (III, B1, C2)
2. 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. (III, B1)
3. 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 skills in communicating medical information orally and in writing. Demonstrate ability to organize and write legible, appropriately formatted entries of pertinent clinical data. (B1, D2)
5. 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. 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. 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 2008-2009:

- Increased emphasis on learning in small group settings in lieu of lectures
- Increased use of video technology for teaching communications skills
- Honors Project requirement for Honors grade for the course
- Community health field experiences and international health components to enhance learning in the areas of cross-cultural issues and health disparities
- Increased utilization of workshops to enhance learning of communications skills; history taking and physical examination skills.
- Planned didactics over a two year arc with ECE II

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 components: Honors, High Pass, Pass, Marginal, Fail

Required textbooks: <http://www.ttuhschool.edu/som/curriculum/booklist0708.aspx>

Date of last Triennial Review: 2006-2007

YEAR 2 BLOCKS

Block I: GENERAL PRINCIPLES AND INTEGRATED NEUROSCIENCES

Block Director: Art Freeman, PhD

Other faculty involved in course: Susan Bergeson, PhD; Michael Blanton, PhD; Mark Boswell, MD; Dana Butler, MD; Penelope Coates, PhD; Alex D’Cruz, MD; Elizabeth Davidson, MD; Richard Dickerson, PhD; John Fowler, PhD; Kenn Freedman, MD; Chuck Giles, PhD; Robert Jensen, MD; Raj Koul, PhD; Matthew Lambert, PhD; Lorenz Lutherer, MD/PhD; Terry McMahan, MD; Reid Norman, PhD; Jeffrey Oliver, MD; John Orem, PhD; Michael Phy, MD; 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; Ron Warner, DVM/PhD; Ben Williams, MD; Rocky Young, PhD.

Guest Speaker: Mark Winter, M.D.

Block Goals and Objectives: (linked to TTUHSC School of Medicine Institutional Vision, Goals, and Objectives) The block is intended to be comprehensive, and it is expected that students who complete it will be able to:

1. Discuss fundamentals of population health, apply information retrieval methods, and explain proper study design (I, II; A2).
2. Explain the fundamental concepts of pharmacokinetics and pharmacodynamics (I; A1-2).
3. Describe the anatomy, functions, and central regulation of the autonomic nervous system including descriptions of cholinergic/adrenergic pharmacology (I; A1-2).
4. Identify and describe the types of cells in neurons and glial cells in the CNS (I; A1).
5. Identify the embryological origins the major subdivisions of the CNS (I; A1).
6. Identify the major neuroanatomical nuclei and pathways of the neuraxis (I; A1).
7. Discuss neurotransmitter synthesis, release, metabolism, receptors, and transduction pathways (I; A1).
8. Identify cranial nerve nuclei and pathways and describe their sensory and motor functions (I; A1).
9. Explain the anatomy and function of sensory and special sensory systems, and upper and lower motor neurons in motor system function (I; A1).
10. Use your new knowledge of neuroanatomical function and central vasculature to discuss the etiology of case-related neurological signs and symptoms and formulate a differential diagnosis (I, II; A1-3).
11. List the characteristics of major degenerative CNS disorders (I; A1).
12. Identify the signs and symptoms associated with primary neuropsychiatric syndromes and describe their major pharmacological treatments (I, II; A1-3).
13. Discuss the roles of neurobiological, psychological, and social factors in the etiology and course of neuropsychiatric syndromes. Discuss the detailed clinical description, differential diagnosis, and general management of the major psychiatric disorders in adults and children (I, II; A1-3, 5).

Block Changes for 2008-2009:

- Additional time has been allotted for the lectures on Basal Ganglia, Association Cortices, and Limbic System.
- Both clinical correlation lectures on Auditory Vestibular system will be given by the same person (Mark Winter, M.D.).
- A second hour of Intro to Autonomic Pharmacology has been added, a 1-hour Review of Autonomic Pharmacology has been added, and the TBL session has been deleted.
- Neuroanatomy lab guides/outlines have been revised for consistency, clarity, withholding of detailed structures for later labs, and the addition of references to clinical radiological images in each section. Prelab introduction will be given to orient students to the purpose of each lab.

- The value of the final NBME Shelf Exam has been increased in value from 19% to 23% of the Block grade. Classes have performed well on the Shelf Exam in every year that this external measure has been used. In tandem with this change, the value of each of the four other Block Exams has been reduced from 19% to 18%. The value of the Week-10 Lab Practical Exam remains 5%.
- Optional review of material from labs and lectures and an optional Neurojeopardy session will both take place the day before Block Exam 1.

Total # of contact hours, percent lecture, and percent other (identify types of teaching formats): ~190 contact hours; 64% lecture; 36% other (clinical correlations, group case discussions, patient interviews, laboratories, videos, team-based learning).

Grading system components:

Quiz, Lab Practical, Block Exams (4), NBME Shelf Exam.

Required textbooks:

<http://www.ttuhsu.edu/som/curriculum/booklist0708.aspx>

Date of last Triennial Review:

Block II: MULTISYSTEM DISORDERS AND CANCER

Block Director: Jane Colmer-Hamood, PhD

Other faculty involved in the block: Steven Berk, MD, Dean, School of Medicine; Michael Blanton, PhD, Pharmacology; Everardo Cobos, MD, Internal Medicine; Jane A. Colmer-Hamood, PhD, Microbiology & Immunology; Nicholas D’Cunha, MD, Internal Medicine; Jeremy Franklin, MD, Pediatrics; Suzanne Graham, MD, Pathology; Fred Hardwicke, MD, Internal Medicine; Anthony Islas, MD, Family Medicine; Safaa Labib, MD, Pathology; Richard Lampe, MD, Chair, Pediatrics; J. Barry Lombardini, PhD, Pharmacology; Elizabeth Miller, MD, Pathology- in third block this year; Jeffrey Oliver, MD, Pathology; Michael P. Phy, DO, Internal Medicine; William Ratnoff, MD, Internal Medicine; Matthew C. Robinson, MD, Internal Medicine; Rial D. Rolfe, PhD, Microbiology & Immunology; Leslie Shen, PhD, Pathology; David C. Straus, PhD, Microbiology & Immunology; Peter Syapin, PhD, Pharmacology; Vijay Tonk, PhD, Pediatrics; Ronald D. Warner, PhD, DVM, Family Medicine; Irfan Warraich, MD, Pathology; And as a group, the Pathology Residents

Block Goals and Objectives:

Goals (with numbered link to SOM Vision Goals):

1. Provide medical students with fundamental knowledge of evidence-based practice. (I, II, IV)
2. Provide fundamental knowledge of the principles of treatment of infectious diseases, musculoskeletal, hematopoietic and lymphoreticular disorders, and cancer. (I, IV)
3. Introduce medical students to the micro- and macroscopic structural abnormalities, basic pathophysiology, and functional abnormalities of the musculoskeletal, hematopoietic, and lymphoreticular systems. (I, IV)
4. 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. (I, II, IV)

Block Objectives (with numbered link to SOM Vision Goals, and Objectives):

To ensure that the medical student is able to

1. Recognize the major etiologic agents of infectious diseases, associate these organisms with specific types of infections and/or body site(s) infected, and interpret laboratory results and diagnostic procedures used to diagnosis infectious diseases. [I, A1-3, B5; II, B4; IV]
2. Understand the pharmacological basis of therapeutics discussed in the block in order to perform adequately in their application during the clinical years. [I, A1-2; II, B4]
3. Select and administer such drugs in medical practice with sufficient understanding of their mechanisms of actions, potential hazards, and 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. [I, A1-3, B5; II, B4; IV]
4. Use basic science and clinical science knowledge to interpret clinical scenarios. [I, A1-3, B5; II, B4; IV]
5. Explain the normal mechanisms of response to injury and repair. [I, A1]
6. Describe the major diseases, and the underlying alterations of structure and function that are their causes, of the following major organ systems: hematopoietic, lymphoreticular, musculoskeletal systems. [I, A1-3; II, B4]
7. Describe the common clinical presentation of the major diseases of the hematopoietic, lymphoreticular, and musculoskeletal systems. [I, A2-3, B5; II, B4]
8. Correlate the pathological with the physiologic changes in these diseases and link the pathophysiology of these conditions to the associated symptoms and signs. [I, A1-3; II, B4]
9. Describe the use of history, laboratory, radiology or other tests in the diagnosis of these conditions. [I, A2-3, B5; II, B4]
10. Apply this information in sample clinical scenarios offered on line and/or in class. [I, A2-3, B5; II, B4; IV]
11. Recognize epidemiologic (disease impact) measures and calculates or determines them (e.g. prevalence; cumulative incidence, case survival and case fatality rates). [I, A1-3, B5; II, B4; IV]
12. Define and calculate sensitivity and/or specificity of a diagnostic or screening test, positive and/or negative predictive values of such tests, and the prevalence of the disease/condition in the study population. [I, A1-3, B5; II, B4; IV]
13. Describe the design, logistics, conduct of case-control studies; cite advantages or disadvantages and relative strengths of such studies; and explain the difference between the terms “retrospective” and “prospective”, as applied to observational studies. [I, A1-3, B5; II, B4; IV]

Block changes for 2008-2009:

- This year the first unit of the block will begin with a focus on infectious diseases and epidemiology followed by the pathology of cell injury, inflammatory responses, and tissue renewal and repair. The rheumatology sessions and the agents used to treat inflammatory diseases follow. This unit also includes biostatistics and an introduction to clinical research studies.
- The second unit covers medical genetics (new to the block) and neoplasia, oncology, and cancer chemotherapeutics; antimicrobial therapeutics; and forensic pathology (returning to the block).
- The third unit covers the musculoskeletal, hematopoietic, and lymphoreticular systems. Virology has returned to first year and will not be covered in this block.

Total # of contact hours, percent lecture, and percent other (identify types of teaching formats): ~125 hours of contact; 65% lecture, 35% alternative format (team-based learning, laboratory, POPS (patient-oriented problem solving), clinical pathology conference, case study sessions, and small groups.

Grading system components:

- 3 block exams and a custom NBME comprehensive final exam
- Formative quizzes
- Self-directed assignments for evidence-based medicine/biostatistics component

Textbooks – this is subject to change on the Robbins

Required

Andreoli and Carpenter's Cecil Essentials of Medicine, 7th edition, 2007 – **See MSCI 6030, MSCI 6040**. Andreoli T et al. (editors). ISBN10-1-4160-2933-8.

Robbins and Cotran Pathologic Basis of Disease, 7th ed., 2005 – **See MSCI 6010, MSCI 6030, MSCI 6040**. Kumar V, Abbas AK, Fausto N (editors). ISBN: 0721601871. Elsevier Saunders, Philadelphia. Also available free online through TTUHSC Library

Pharmacology Katzung; Clinical Pharmacology online through TTUHSC library. Also texts used in Block 1 for Assessing Medical Evidence will be continued throughout the block.

Recommended: *Robbins and Cotran Review of Pathology*, 2nd Edition, 2005. Klatt EC, Kumar V. ISBN 0-7216-0194-4. Elsevier Saunders, Philadelphia. Softbound; USMLE format questions; highly recommended.

BLOCK III: SYSTEMS DISORDERS I

Block Director: J Barry Lombardini, Ph.D.

Other Faculty involved in course (tentative)

Pathology: Suzanne Graham, MD; Charles Bradley, PhD; Vivian Mamlok, MD; Christina Samathanam, MD, PhD; Ruc Manh Tran, MD; Pathology Residents

Internal Medicine: Piaraon Sutthiwan, MD – Cardiology; Gary Meyerrose, MD – Cardiology; Alex Suarez MD – Cardiology; Ashwani Kumar, MD – Cardiology; Leigh Ann Jenkins, MD – Cardiology; Kenneth Nugent, MD - Pulmonary Medicine; Cynthia Jumper, MD - Pulmonary Medicine; Rishi Raj, MD - Pulmonary Medicine; Matthew Robinson, MD - Infectious Diseases; David Hodges, MD – Gastroenterology; Easwaran Variyam, MD – Gastroenterology; Hamed Al-Tamimi, MD – Gastroenterology; Sreeram Parapudi, MD – Gastroenterology; Sharma Prabhakar, MD – Nephrology; Melvin Laski, MD – Nephrology; Meryem Kara, MD – Nephrology.

Pharmacology: Tom Tenner, PhD; Peter Syapin, PhD; Richard Dickerson, PhD. Urology: Thomas Nelius, MD; David Van Buren, MD. Surgery: John Griswold, MD; Family Medicine: Ronald Warner, PhD, DVM. Health Services Research Management: Ke (Tom) Xu, PhD; Nephrology Fellows

Block Goals and Objectives: (linked to TTUHSC School of Medicine Institutional Vision, Goals, and Objectives) Upon the completion of this block (Systems Disorders 1), the student will be able to:

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 (I, A1-2; B5).
2. Correlate the pathological changes in the major organs covered in this block with respect to the normal physiological condition (I, A1-3).
3. Apply this information in sample clinical scenarios offered in class (II, B3; IV, B3; VI, 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 (I, A1-3).

Block Changes for 2008-2009: Continue to improve integration and teaching formats. Changes in faculty teachers for some sessions are anticipated.

Total # of Contact Hours, Percent Lecture, and Percent Other (identify types of teaching formats): Total Contact hours: 122 hours.

Estimated proportions:

70%	Lecture sessions
17%	Large interactive group sessions
1%	Laboratory sessions
1%	Small group sessions
11%	Review sessions

Grading system components: In class exams - 4; Comprehensive Final exam

Required textbooks: See <http://www.ttuhschool.edu/som/curriculum/booklist0708.aspx>

Date of last Triennial Review: 2008

BLOCK IV: SYSTEM DISORDERS II AND LIFE SPAN ISSUES

Block Leader: Richard L. Dickerson, Ph.D., DABT

Other SOM Faculty involved in course: Raed Alalawi, M.D.; Dean Steven Berk, M.D.; Lynn Bickley, M.D.; Cissy Carrasco, M.S.; Robert Casanova, M.D.; Kathy Chauncey, Ph.D.; Cornelia DeReise, M.D.; Leo Dominguez, M.D.; Deborah Eezzuduemhoi, M.D.; Lance Evans, Ph.D.; Nagma Farooqi, M.D.; Carol Felton, M.D.; Kenn Freedman, M.D., Ph.D.; Eldo Frezza, M.D.; Wade Graham, M.D.; Paula Grammas, M.D.; Clint Gregg, M.D.; Sami Jabara, M.D.; J. Barry Lombardini, Ph.D.; Viviane Mamlok, M.D.; David McCartney, M.D.; Steven Mathews, O.D., Ph.D.; Kelly Mitchell, M.D.; Thomas Nelius, M.D.; Jeffrey Oliver, M.D.; John Pelley, Ph.D.; Michael Phy, D.O.; Samuel Prien, Ph.D.; Michael Ragain, M.D.; William Ratnoff, M.D.; Chwan-Li Shen, Ph.D., Cloyce Stetson, M.D.; Jennifer Smith, M.D.; Peter Syapin, Ph.D.; Ruc Tran, M.D.; Cindy Trotter, Mitchell Wachtel, M.D.; Ron Warner, D.V.M., Ph.D.; Erfan Warraich, M.D.; Michael Wells, M.D.; Welt, Simon Williams, Ph.D.

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

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

The overall objectives of this 8-week course include (but will not be limited by):

- Endocrine: Overview of structure and function, pathology and the treatment of disease processes involving the hypothalamic-pituitary axis, the thyroid gland, the adrenal gland and glucose metabolism. (A3, B5)
- Nutrition Overview of principles of nutritional support, eating disorders and disorders of bone and lipid metabolism. (A3, B5)
- Reproduction: Overview of structure and function, developmental changes, pathology and treatment of disorders involving the male and female reproductive organs and their treatment. (A3, B5)
- Women's health: Overview of unique biology of the normal woman, treatment and prevention of abnormal conditions limited to women across age groups. (A3, B5)
- Skin: Overview of normal structure and function of the skin, diseases of the skin and their treatments. (A3, B5)
- Eye: Overview of normal structure and function of the eye, diseases of the eye and their treatments. (A3, B5)

- Aging Patient: Understand the biology of aging, the ‘normal’ aging patient, pathophysiology and pharmacology peculiar to the aging patient and multidisciplinary approach to treating the disease process in the elderly. (A3, B5)

Blocks changes for 2008-2009: Student performance in Block 4 Systems Disorders II has continued to improve during the last two years. Based on this and student feedback, we will continue our current teaching initiatives and refine the content and timing of lectures.

Lecture:

- Consolidating lectures on osteoporosis and adding lecture on disorders of puberty and their treatment
- Minimize overlap and duplication in nutrition lectures
- Additional quizzes, one or more before each exam with learning objective feedback
- Inform students of available question banks to help prepare for exams
- Include more USLME style questions in lectures and reviews
- Exams – add additional time between third exam and NBME customized final exam

Lab: Clearly state the attendance and dress policies for laboratories

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 components: Categorical

Honors: 90 and above
High Pass: 85-89
Pass: 75-85
Marginal: 71-74
Fail: less than 70

Based upon scores of three instructor-written exams, small group projects, and a NBME customized final exam.

Required textbooks: <http://www.ttuhsu.edu/som/curriculum/booklist0809.aspx>

Date of last Triennial Review: 2008

Year Long Longitudinal Block: EARLY CLINICAL EXPERIENCE II

Block Director: Fiona Prabhu, MD

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

Block 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. (School of Medicine (SOM) Goal #3)
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. (SOM Objective B #1)
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. (SOM Objectives B #1 and C #3)

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). (SOM Goal #5 and Objective C #2)
5. Exhibit respect for each patient's unique needs and background and how they affect the patient's concerns, values, and health care decisions. (SOM Objective D #1)
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. (SOM Goal #3 and Objective B #2)
7. Recognize attributes of effective verbal presentations and be able to present a patient history and physical exam in a clear and concise manner. (SOM Objective B #1)
8. Explain the organization of the medical record in the outpatient setting, and write a legible, appropriately formatted entry of important clinical data. (SOM Objective B#1)
9. Demonstrate use of at least two on-line references to quickly answer clinical questions during an ambulatory patient visit. (SOM Objective B #4)
10. Understand the basic organization of the health care system and the professional, legal, and ethical expectations of physicians and students. (SOM Objective A #4)
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. (SOM Objective C #5 and D #2)

Block Changes for 2008-2009: Small group discussions will continue to be led by alternating pairs of students. Advanced physical exam workshops will be taught throughout the month of August at the School of Medicine campus. Students will not start at community preceptor offices until September

	Total # of contact hours per student	%
Lectures	20 hours	27
Workshops	6 workshops x 1 hr = 6 hours	8
Small Groups	7 small groups x 2 hrs = 14 hours	19
Community Preceptor Clinics	7 visits x 4 hours = 28 hours	38
OSCEs	2 OSCEs x 30 min. = 1 hour	1.35
Written Exams	4 quizzes x 15 minutes = 1 hour	6.75
	2 exams x 2 hours = 4 hours	
TOTAL HOURS	74 hours	

Date of last Triennial Review: 2007-2008

YEAR 3 CLERKSHIPS

FAMILY MEDICINE

Clerkship Directors by Campus:

Amarillo:	Frank Hromas, MD
El Paso:	Charmaine Martin, MD
Lubbock:	Fiona Prabhu, MD

Clerkship Goals and Objectives: (linked to the School of Medicine Institutional Vision Goals, and 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, psychosocial, 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

Changes in clerkship content, learning experiences, or teaching formats planned for 2007-2008:

1. Our Departmental Exam will now be given as a weekly exam. The questions will be taken from last year's Exams (A) and (B) and will cover the lecture topics given that week. These scores will no longer be considered as a major component and will be Pass/Fail requiring a score of ≥ 70 .
2. We will supply 2 additional books: "Case Files for Family Medicine" and "Pre-Test Rewview".

Grading system components: You will be evaluated on your performance during your Family Medicine Clerkship using the rating categories Honors, Pass, and Fail. The grading scheme is as follows: **Component:** Honors – Pass - Fail

NBME Exam:

TM75th percentile - Honors

5-74th percentile - Pass

~4th percentile - Fail

Clinical Evaluation: TM3.4 average – Honors; 1.5-3.3 average – Pass; ~1.4 average - Fail

OSCE: Pass - Fail

Department Exam:

Pass >70 % average of weekly exam

Fail < 70% average of weekly exam

Other components:

Professionalism:

Pass: dimensions of commendation > dimensions of concern

Fail: dimensions of commendation < dimensions of concern

Observed History and Physical:

Pass: completed

Fail: incomplete

Case Presentation: Pass - Fail

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 Professional Component

Failures of the "other components" are at the discretion of the CD

Clinical Skills-Honors; and NBME-Honors=HONORS

If the student fails to receive Honors in both major components, the grade= PASS

OSCE's are graded as Pass/Fail only and are therefore not a major component.

Fail either NBME or average of Departmental exams: repeat test and pass=PASS

Fail NBME and average of Departmental exams=FAIL

Fail Clinical skills= FAIL

Required Textbooks: Essentials of Family Medicine, 5th edition- Sloan; Blue Prints of Family Medicine, 2nd Edition; Case Files Family Medicine-Lange; Pre Test Family Medicine-Knutson

Date of last Triennial Review: 2007-2008

INTERNAL MEDICINE

Clerkship Directors by Campus:	Amarillo:	Steven Urban, MD
	El Paso:	Dinorah Nutis, MD
	Lubbock:	Robert Neilson, MD

Clerkship Goals and Objectives:

GOALS: 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.

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)

* Notations in parentheses show linkage to Institutional Educational Objectives

Changes in clerkship content, learning experiences, or teaching formats planned for 2008-2009: The “Outpatient Clinic/Ambulatory Patient Experience” will be omitted due to the ongoing longitudinal clinic.

Grading System Components: Medical students are evaluated on their performance during the Internal Medicine Clerkship using the rating categories Honors, Pass, and Fail. The grading scheme is as follows:

Major Components	Honors	Pass	Fail
NBME Exam	≥75 th percentile	5-74 th percentile	≤4 th percentile
Clinical Evaluation	≥3.1 average	1.5-3.0 average	≤1.4 average
OSCE	≥90%	60-90%	≤59%

NBME Exam: The National Board of Medical Examiners Medicine Subject Examination in Internal Medicine

Clinical Evaluation: Evaluations by faculty physicians and house staff using the TTUHSC Clerkship Evaluation Form

OSCE: Objective Structured Clinical Examination given at the end of the clerkship.

Other Components:

Professionalism:

- Pass: dimensions of commendation > dimensions of concern
- Fail: dimensions of commendation < dimensions of concern

Inpatient Write-ups:

- Pass: turn in 7 or more write ups
- Fail: turn in less than 7 write ups

Observed History and Physical:

- Pass: completed satisfactorily
- Fail: incomplete

Criteria for grade of “Honors” in Internal Medicine Clerkship:

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

Criteria for grade of “Pass” in Internal Medicine Clerkship:

- Does not meet criteria for Honors
- No Fail grades

Criteria for grade of “Fail” in Internal Medicine Clerkship:

- Failure of one or more components. See the current TTUHSC Student Affairs Handbook 2006-2007, paragraph 4.2.2, 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, 7th Edition
- First Exposure in Internal Medicine: Ambulatory Medicine and Hospital Medicine

Basic Textbooks:

- Harrison’s Principles of Internal Medicine, 16th Ed. (McGraw-Hill, 2004).
- Cecil Textbook of Medicine, 22nd 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, 2nd edition, by Paauw, Burkholder, and Migeon (Mosby, 2003).

Focused Textbooks and References:

- Rapid Interpretation of EKG's, 6th edition, by Dale Dubin, MD (COVER Publishing Company, 2000).
- Felson's Principles of Chest Roentgenology, 2nd 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 4th year students.
- PreTest Medicine, 11th 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 3rd 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 scan weekly contents free.
- The Journal of the American Medical Association www.ama-assn.org/jama
- Annals of Internal Medicine www.acponline.org
- Archives of Internal Medicine www.ama-assn.org/internal
- Lancet www.thelancet.com
- British Medical Journal Free access to entire journal www.bmj.org

Date of last Triennial Review: 2006-2007

OBSTETRICS & GYNECOLOGY

Clerkship Directors by Campus:	Amarillo:	Teresa Baker, MD
	El Paso:	Sanja Plavsic Kupesic, MD, PhD
	Lubbock:	Carol Felton, MD
		Robert Casanova, MD

Clerkship Goals and Objectives: (linked to the School of Medicine Institutional Vision Goals, and 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 episotomy/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:

1. Weekly mentor meetings with bi-weekly evaluations; mid-rotation professionalism evaluation
2. On-line patient log required
3. Small group discussions prior to clinics
4. Teaching Rounds (GYN)
5. Recording clinical experiences via Clinical Passport

Grading system components:	Clinical	40%
	NBME	40%
	OSCE	10%
	Dept Project	10%

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

Date of last Triennial Review: 2006

PEDIATRICS

Clerkship Directors by Campus: Amarillo: Angelica Chavez, MD, Shannon Herrick, MD
El Paso: Marie-Martine Logvinoff MD,
Joanna Wojciechowka, MD
Lubbock: Robbie Scott, MD

Clerkship Goals and Objectives: (linked to the School of Medicine Institutional Vision Goals, and 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
 - 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
 - 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

Changes in clerkship content, learning experiences, or teaching formats planned for 2007-2008:

Amarillo:

1. Dr McCurdy will conduct a lecture series on the topic of house staff as educators for the residents.
2. We are streamlining the lecture material whenever possible. We have added a lecture on genetics and urology.
3. We are changing the content of lectures to case-based which will promote student self directive learning and provide the student with knowledge to go beyond diagnosis and into management/treatment.
4. We are compiling a file of questions obtained from the PREP curriculum so that students get experience taking board-exam like questions. The questions are chosen based on the keyword phrase item analysis report issued by the NBME for the Pediatric Examination.
5. In response to the student interest we have arranged a one- week rotation with various private pediatricians in the Amarillo community, a one week rotation through the special needs clinic, and 2 days per week during their general outpatient rotation doing well-baby check-ups under the direction of Dr. Herrick.

El Paso:

1. A new lecture series by Dr. Akins and Dr. Handal on “Teaching residents how to teach” to reinforce the residents unique position they hold in modeling essential skills of medical students.
2. Implement an approved 4 week rotation of senior resident “Teaching Resident,” with goals, objectives, evaluations, to reinforce history taking, physical examination, formulation of assessment with students, etc.
3. Weekly board review for residents and students. (Questions from the PREP, Kaplan course, NBME)
4. New experiences in chronic illness outpatient care with 2 weeks in the subspecialty clinic, exposure to adolescent medicine and Juvenile Detention medicine.
5. Meetings every 3-4 months as a Pediatric Clerkship Steering Committee Meeting to ensure implementation of the above and to discuss new initiatives.

Lubbock:

1. Increase lecture series with regards to procedures – IV Placement, Intubation, Tracheostomy, G Tubes, a lecture on Pediatric Resuscitation.
2. Replaces 2 weeks of community Pediatrics with 1 week of Fast Track ER and 1 week rotating through various predetermined Pediatrics Sub-Specialties.
3. Required weekly readings / quizzes from Pre Test Pediatrics.
4. Weekly 40 questions take-home quizzes that cover defined Pediatrics topics. We will go through the quiz each Friday for 1 hour discussion and student will get a 4-5 pages typed review at the end.

Grading system components:

You will be evaluated on your performance during your Pediatric Clerkship using the rating categories: Honors, Pass and Fail. The grading scheme is as follows:

Component	Honors	Pass	Fail
NBME Exam	≥75 th percentile	5-74 th percentile	≤4 th percentile
Clinical Evaluation	≥3.1 average	1.5-3.0 average	≤1.4 average
OSCE	Pass		<70%
Inpatient Write-ups (2)	Pass		<70%
Observed HP (2)	Pass		<70%
Quizzes	Pass		<70%

Professionalism:

- Pass: dimensions of commendation > dimensions of concern
- Fail: dimensions of commendation < dimensions of concern

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

Required 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

Date of last Triennial Review: August 2006

PSYCHIATRY

Clerkship Directors by Campus: Amarillo: Stacia Lusby, MD
El Paso: Dan Blunk, MD
Lubbock: Terry McMahon, MD

Clerkship Competencies & Objectives: (linked to the School of Medicine Institutional Vision Goals, and Objectives)

OBJECTIVES

1. Performs on appropriate psychiatric interview and evaluation including mental status exam and MMSE. (III, A3, B2)
2. Formulates an appropriate differential diagnosis and DSM IV multi axial assessment. (IV, 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. (IV, V, 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. (I, V, A5, B1, C1, C2)
6. Demonstrates an understanding of each class of psychotropic medications and the principles of different psychosocial therapies. (A3, B3)

COMPETENCIES

By the end of the clerkship students are expected to display the following competences:

Clerkship Competencies	
1	Adequately completes a full psychiatric assessment <ol style="list-style-type: none">a. Establishes an empathic, compassionate alliance in appropriate, professional mannerb. Obtains complete psychiatric historyc. Performs a complete mental status exam/cognitive assessmentd. Formulates differential diagnoses and working DSM IV 5-axes diagnosese. Orders relevant lab/imaging/testingf. Develops an appropriate treatment plan
2	Demonstrates ability to provide ongoing care to psychiatric patients <ol style="list-style-type: none">a. Maintains a therapeutic, respectful alliance in an appropriate, professional mannerb. Communicates effectively by documentation and/or verbally with patients, families, medical record, other professionalsc. Is familiar with rating scales to assess outcomesd. Is familiar with the use of algorithms in psychiatric treatment

3	<p>Understands the management of psychiatric emergencies</p> <ul style="list-style-type: none"> a. Ensures safety of patient, staff, others b. Assesses patient danger to self-others. c. Uses therapeutic communication to diffuse situations. d. Recommends appropriate medication and/or restraint. e. Gathers relevant collateral information. f. Identifies signs/symptoms distinguishing psychiatric from non-psychiatric emergencies.
4	<p>Integrates principles of psychiatric core into medical practice</p> <ul style="list-style-type: none"> a. Identifies relevant psychiatric concerns that arise in patients who are medically ill. b. Establishes collaborative relationships between psychiatric and other health professionals. c. Develops awareness of prevalence of psychiatric disorder in medical settings. d. Identifies how psychiatric conditions and medical conditions affect the presentation and course of one another.
5	<p>Practices evidenced-based psychiatric care.</p> <ul style="list-style-type: none"> a. Demonstrates well-rounded knowledge of range of psychiatric disorders and treatment including professional, legal, and ethical issues b. Performs evidence-based literature searches. c. Delivers a comprehensive case presentation.
6	<p>Demonstrates sound compassionate care for patient</p> <ul style="list-style-type: none"> a. demonstrates respect for patient b. maintains confidentiality c. demonstrates ability to work as team member for patients benefit

Changes in clerkship content, learning experiences, or teaching formats planned for 2007-2008:

- a. Two weeks of neurology dropped
- b. Addition of Psychiatry Textbook David A. Tomb's House Officer Series, 7th edition

Grading system components:

Clinical – 50%
OSCE – 25%
NBME – 25%

HONORS —————> **HONORS Criteria:**

NBME must be **Honors** ***and***
Honor in one other **Major Component** (Clinical Evaluation-Form R or OSCE); ***and***
Pass all other components (No Fail Grades)

PASS —————> **PASS Criteria:**

Does not meet criteria for Honors
No Fail Grades

FAIL —————> **FAIL Criteria:**

Failure of one or more components.

COMPONENT CRITERIA

Major Components Criteria

GRADE	PERCENTILE
HONORS	≥75 th percentile
PASS	≥ 5 th – 74 th percentile
FAIL	≤ 4 th percentile

HONORS	PASS	FAIL
≥ 75 th percentile	5 th – 74 th percentile	≤ 4 th percentile
≥ 3.5 average	1.5 – 3.4 average	≤ 1.4 average
≥ 90%	60 – 89%	≤ 59%

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

Date of last Triennial Review: 2006-2007

SURGERY

Clerkship Directors by Campus: Amarillo: Dennis Dove, MD
El Paso: Susan McLean, MD
Lubbock: Tom Warren, MD

Clerkship Goals: (linked to the School of Medicine Institutional Vision Goals, and Objectives)

Description of Clerkship: 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.

On the El Paso and Lubbock campuses surgical residents participate with attending surgeons as the Educators who present the curriculum. On the Amarillo campus, in the absence of surgical residents, the Student-Attending Physician Learning Unit, remains at the core of the educational experience. (*Goals I-VI*)

Goals:

The Goals of the MSIII Core Clerkship in Surgery are presented in fulfillment of the ***TTUHSC School of Medicine Institutional Vision, Goals, and Objectives.***

- To acquaint the student with those clinical problems that requires surgery as an integral part of the treatment of an individual patient. The emphasis during this rotation is not on surgical technique, but on the understanding of the patho-physiology of disease states, the use of surgical intervention in the management of these states, the decision making process which accompanies surgical management, and the management of pre and post operative conditions and problems. (Goals I-VI)
- To introduce the student to the fundamental concepts germane to the practice of the specialties of surgery, to include General Surgery, the major sub-specialties and anesthesia. (Goals I-VI)
- Through this clerkship, the student will come to understand the basic routines of surgical management, become familiar with proper consultative practices and recognize Surgery as a professional medical specialty. (Goals I-VI)

Clerkship Goals and Objectives: (linked to the School of Medicine Institutional Vision Goals, and 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 online 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:

The **Educational Objectives** of the **MSIII Core Surgery Clerkship CURRICULUM** as presented in three categories which follow was adopted as the Core Curriculum for all campuses:

- I. **General Core Competencies– (Surgery Specific)**
- II. **Core Surgical Knowledge**
- III. **Essential Conditions/Symptoms/Signs in the Surgical Patient: Diagnosis and Management**

For ease of presentation and student preparation, the corpus of the **Core Surgical Knowledge** has been grouped into **Learning Modules**. A **Core Knowledge Syllabus** is provided for each module. Online Links or Attachments are provided to resources which presents material related to this Core Knowledge Syllabus in different formats/"intelligences".

An individual campus may provide a different grouping of Learning Modules and use different standard surgical texts as the resource links while maintaining all items included in the **Core Surgical Knowledge**.)

The TTUHSC Surgery Clerkship Core Manual has been accepted by all campuses and together with schedules and information specific to each campus is available to students as a **Web CT** course.

Grading system components:

1. **Student Assessment** : **Domains of Student Assessment** - Assessment of Student **Development**; Assessment of Student **Competencies**; Assessment of Student **Knowledge**

: Methodologies for Student Assessment

Assessment of Student Development:

- Faculty / Resident Student Clerkship Evaluation Form
- Professionalism and Communication Assessment Form
- Utilizes Panagaro's RIME Scheme in self evaluation and faculty evaluation in Mid Rotation Student Evaluation
- Provides comment regarding student status by Panagaro's RIME Scheme in Final Department Evaluation

Assessment of Student Competencies:

Final Department Evaluation on each campus:

- Two to Four Standardized Patient (SP)OSCE's selected from Essential Signs / Symptoms categories: Head & Neck, Breast, Abdomen, Trauma, Vascular/Lower Extremity
- EBM SP OSCE (Evidenced Based Medicine) - optional
- Non SP OSCE's paper evaluation of Diagnosis, Skills, Knowledge and Management of Curricular Content to include the Interpretation of Radiology Studies

Assessment of Student Knowledge:

- Final Department Evaluation to include a Non Standardized Patient (paper) OSCE Section, which specifically evaluates knowledge, skills, diagnosis and management as included in the Core Surgical Knowledge and Essential Signs / Symptoms specific to Surgery portion of the curriculum.
- NBME Subject Examination - Surgery

Components of Final Grade:

- Faculty Clinical Assessments (as entered online)
- Required Department Activity Completions
 - o **Core:** Procedure Logs/Case Logs/Self Assessment of Core Surgical Knowledge/Patient Safety & Medical Errors
 - o **Campus Specific:** e.g.-Evidenced Based Surgical Practice (Ama)

- Final Department Evaluation
- National Board Examination
- Comprehensive Assessment and Comment Section

Assignment of Final Course Grade:

Honors = Honors NBME + Honors Faculty Assess or Final Dept Evaluation + Pass in Department Activity Completion
 Pass = Pass all components / combination Pass + Honors
 Fail = Fail NBME / Final Department Evaluation or fail Faculty Evaluation

Required Textbooks: As provided in Resource Links to Core Surgical Knowledge.
Date of last Triennial Review: 2007-2008

Year Long Longitudinal Block: CONTINUITY CLINICAL EXPERIENCE

Clerkship Directors by Campus:

Amarillo:	Steve Urban, MD – Internal Medicine Frank Hromas, MD – Family Medicine
El Paso:	Kathy Horn, MD – Family Medicine Manuel Schydlower, MD – Pediatrics
Lubbock:	Mike Ragain, MD – Family Medicine Selim Krim, MD – Internal Medicine

Structure:

- Begins on all campuses September 2008; occurs twice a month
- 2 credit hours; clerkships each 8 credit hours; total Year 3 credit hours: 54 (same as prior years)
- Will have ambulatory textbook
- Student schedules vary by campus.

Experience Goals and Objectives (Linked to the School of Medicine Institutional Vision Goals and 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

1. Longitudinal Skills. By the end of the rotation the student will be able to:
 - a. Utilize the chronic care model in the delivery of patient care. (I; A2, B2, B3)
 - b. Use a registry to track effectiveness of health care and to plan further interventions. (I; A2, A3, A4, B3, B4, B6, C1)

- c. Demonstrate methodical stepped evaluation and treatment of patients considering patient values, cost, effectiveness and side effects or complications. (I; A3, A5, B3, C3, D1)
 - d. Describe the evolution of disease processes over time. (I; A2, A3, B1)
 - e. Demonstrate skills for the long-term management of health and illness. (I; B3)
 - f. Develop rapport with patients and assume responsibility for their patients. (V; C2)
2. 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)
 3. Screening and preventive aspects of adult health. By the end of the rotation the student should be able to:
 - a. Describe criteria for key screening tests (I; A2, A3, A4, B5, B6)
 - b. Describe types of routine preventive health care (i.e., cancer screening, etc); utilize vaccines appropriately (I; A2, B2, B5, B6)
 - c. Counsel patients about smoking cessation, weight loss, alcohol cessation, contraception, and exercise. (I; A5, B1)
 - d. Apply up to date guidelines re periodic health assessment (II, IV; B4, D3)
 - e. Assess your own practice for adherence to recommended guidelines. (II; A2, A4, C5, D1, D2, D3)
 4. Systems-based practice. By the end of the rotation the student should be able to:
 - a. Describe methods for systematically improving medical practice (II; B3, B5)
 - b. Demonstrate the use of quality improvement techniques to improve your outpatient practice. (II, B4, D3)
 5. Diagnosis and management of common *urgent* medical problems of ambulatory patients. By the end of the rotation the student should be able to:
 - a. Demonstrate obtaining and recording pertinent history, physical exam, and laboratory findings. (III; B2, B3, B5)
 - b. 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)
 6. Diagnosis and management of common undifferentiated medical problems of ambulatory patients. By the end of the rotation the student should be able to:
 - a. Describe the approach to undifferentiated problems present in the ambulatory setting. (III; B2, C1, C2, C3)
 - b. 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)
 7. Professionalism By the end of the rotation the student should be able to:
 - a. Describe the role and responsibility of the physician in society. (VI; C1, C2, C5, D1, D2, D3)
 - b. Serve as key contact person for patient issues for patients from your panel. (I; B3)
 - c. Complete patient care activities in a timely fashion. (III; B6, C5, D2)

Changes in clerkship content, learning experiences, or teaching formats planned for 2007-2008: Each campus is improving scheduling and didactic components of this experience.

Grading system components:

- All-campus OSCEs
- <http://www.ttuhs.edu/som/curriculum/calendar0708.aspx>
- Written Final Exam
- Patient Logs
- Chart review

Required Textbooks: TBA**Date of last Triennial Review:** N/A**MSIII INTEGRATION SEMINAR** (Once per clerkship)**Key Contacts:** Patricia Aristimuno MD, Director; Kendra Rumbaugh PhD, Associate Director
Campus Coordinators: Amarillo – Dr. Steve Urban; El Paso – Dr. Brian Tobin**Goal:** Rediscover basic science concepts underlying patient presentations, disease processes, differential diagnosis, and treatment**Objectives:**

- Apply principles and advances of current basic science research to actual patient problems (A1-3,A5; B4; D3)
- Using teamwork, organize a Student Grand Rounds session that promotes effective interactive student learning (A1-3,A5;B4;D3)
- Provide an in-depth evidence-based case discussion on a selected scientific question for your team's Student Grand Rounds (A1-3;B4;D3)

Mechanics:

- Integration Seminar Team (Drs. Aristimuno, Rumbaugh, Bickley) selects 6 cases for use on all three campuses (see below) and coordinates with Campus Coordinators, Dr. Urban in Amarillo, Dr. Tobin in El Paso
- 2 mentors and 8-10 students meet for 2 hour planning session in Clerkship Week 3; conduct 60-90 session Week 6 of each of the 6 clerkship blocs. Campus Faculty Coordinators are responsible for: student guidance in selecting focused topic for presentation; organizing student presentations; ensuring good faculty, resident, and student turnout at Student Grand Rounds Session.
- Presentation: Each student is responsible for 5-6 slide basic science presentation focused on critical element of: history, physical, impression and plan of case provided; relevant pathophysiology, molecular biology; basic science review; differential diagnosis. Student presenters should participate in question and answer session for students and faculty in the audience.

Required Textbooks: TBA**Date of last Triennial Review:** N/A

YEAR 4 REQUIRED AND ELECTIVE ROTATIONS

REQUIRED ROTATIONS: There are 5 required rotations on each campus: Subinternship (student chooses one--Family Medicine, Internal Medicine, Pediatrics, or Surgery); Critical Care/ER; Neurology –these are one-month rotations. Geriatrics; Ambulatory – these are each 2 week rotations.

ELECTIVE ROTATIONS: The student may choose 3 one-month electives and 2 two-week electives from selections on each campus; elective time can also be used for away rotations.

Required and elective rotations on each campus, updated for 2008-2009, are listed at the following location:

- ❖ **The School of Medicine Office of Curriculum web site**

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