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**Curriculum Template 2013-2014**

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### FMAT-specific courses
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### Elective Courses
# Curriculum Diagrams

## Standard Medical Education Curriculum

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Institutional Educational
Vision, Goals, and Objectives

Approved: May 10, 2010

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

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

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

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

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

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

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

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

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

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

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

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

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

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

• Describe the organization of the health care delivery system and the professional, economic, legal, and ethical expectations of physicians.
• Demonstrate the application of the principles of behavioral and social sciences as applied to family systems and their effect on patient health.
• Employ health care within an interdisciplinary team that is safe, effective, patient-centered, timely, efficient, and equitable.
Years 1 and 2

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

The four didactic blocks of year 1 (Clinically Oriented Anatomy; Biology of Cells and Tissues; Structure and Function of Major Organ Systems; and Host Defense) cover the anatomy of the human body, the structure of the body building from molecular to cells to tissues and finally to organs, and the interactions of the human body with microorganisms. The four didactic blocks of year 2 (General Principles, Multisystem Disorders and Cancer; Integrated Neurosciences; and System Disorders I and II) provide a detailed introduction to the human neurological system and pathological conditions that affect the organ systems introduced in year 1. The order of the first two blocks of Year 2 has been switched for 2013-2014 to promote continuity in the learning experience.

In previous years, students took two year-long longitudinal blocks, Early Clinical Experience 1 in Year 1 and Early Clinical Experience 2 in Year 2, that exposed them to patient encounters early in the curriculum and provided an opportunity to learn basic clinical techniques such as the taking of a patient history and physical. Both blocks also introduced societal issues that are critical for effective patient care in the twenty-first century. These courses have been altered in structure (but not in content and learning objectives) for the 2013-2014 academic year. Each Early Clinical Experience block has been divided into two subsections, named Patients, Physicians and Populations (P3) and Development of Clinical Skills (DOCS). The P3 subsections will be delivered in three week-long interblock sessions and will cover topics related to medical ethics, professionalism, assessment of medical evidence, cultural competence and other behavioral science topics. The DOCS subsection will be a longitudinal clinically-based course that introduces students to concepts related to patient care, including extensive training in physical examination skills and the taking of an accurate and pertinent patient history. Finally, all students take an online course in basic medical Spanish to facilitate interactions with patients for whom Spanish is their first language. Students in the FMAT program take two additional courses, one in the summer between years 1 and 2 and longitudinal Family Medicine clerkship in year 2.

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

Assigned Reading: Textbooks and other reading assignments can be found on the Website of the Office of Curriculum at http://www.ttuhsc.edu/som/curriculum/booklist1314.aspx.
Block Name: Patients, Physicians & Populations (P3-1)/ Development of Clinical Skills (DOCS-1) MSCI-5196
(Y1B5; Year-long Longitudinal Block)

Block Directors: Betsy Goebel Jones, EdD (P3) and Fiona Prabhu, MD (DOCS)
Associate Block Directors: Patti Patterson, MD and Lara Johnson, MD (P3)
Janice Stachowiak MD and Rebecca McDonald MD (DOCS)
Block Coordinator: Valerie Tipton

Block Goals and Objectives:
The overarching goals for P3-1/DOCS-1 are to prepare students to learn medicine at the bedside and to help students gain the knowledge and skills necessary to understand and influence factors affecting the health of their patients. Key MS1 themes include Introduction to the Profession of Medicine, Patients and Populations, and Career Planning.

Course Learning Objectives for P3-1: After completing P3-1, students should be able to:

- Demonstrate effective communications skills. Students will be able to use the following interviewing and communication skills – Establishing Rapport, Collaborative Language, Explicit Caring, Non-directed Facilitation, Silence, Active Listening, Open-ended Questioning, Restating and Summarization, Addressing Feelings with the Patient. (I1, I2)
- 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 healthcare system. (I1, I2, P1, P2, P3, P4)
- 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. (L2, L3, L4, S2)
- Demonstrate sensitivity to the diverse factors affecting the health of patients, 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. (C1, I1, I2, P2, S2)

Course Learning Objectives for DOCS-1: After completing DOCS-1, students should be able to:

- Demonstrate ability to gather and record a patient’s history. Students will be able to obtain a chief complaint, a history of present illness, take a medication and allergy history, the past medical history, a family and social history and a systems review. (C2, K3, I2)
- Demonstrate skills in basic physical examination. Accurately measure and record vital signs (blood pressure, heart rate, respiratory rate, temperature, and body mass index). Perform and record the physical examination of the following major body systems: head, ears, eyes, nose, mouth, oropharynx, neck, chest, cardiac, pulmonary, and abdomen. Demonstrate appropriate use of the diagnostic tools necessary to perform these examinations. (K2, K3)
- Demonstrate skills in communicating medical information orally and in writing. Demonstrate ability to organize and document appropriately formatted entries of pertinent clinical data. Demonstrate ability to communicate effectively with patients, fellow students, clinic staff and faculty. (B1, D2)

Block changes for 2013-2014: New format and schedule

Total # of Contact Hours, Percent Lecture, and Percent Other (identify types of teaching formats): 108 hours [26% clinic; 18% didactic; 27% small group; 17% workshop; 3% examination/OSCE; 9% community experiences]
Grading System

Formative evaluations: Written portfolio assignments, clinical notes, clinical procedure logs

Summative Evaluations: Written examinations, OSCEs, Small Group Assessments

Grading Categories: Honors, Pass, Fail; Honors available via optional group project only


Date of last Triennial Review: 2011
Clinically Oriented Anatomy (Y1B1; MSCI 5101)

**Block Director:** Vaughan Lee, PhD  
**Associate Block Director:** Brandt Schneider, PhD  
**Block Coordinator:** Candace Brown

**Block Faculty:** Beverly Chilton, Gail Cornwall, Bernell Dalley, Toni Denison, Richard Dickerson, Jannette Dufour, Anthony Hewetson, Vaughan Lee, Brandt Schneider, Jeffery Thomas, Branislav Vidic

**Guest Speakers:** Department of Family Medicine –Jennifer Mitchell, Department of Surgery –Joehassin Cordero, Department of Orthopedic Surgery – Mimi Zumwalt, Department of Internal Medicine – Cynthia Jumper, Department of Obstetrics and Gynecology – Dr. Robert Casanova, Department of Urology – Dr. Allan Haynes Jr., Community Physicians - Athos Colon and Michael Owen

**Block Goals and Objectives:** This ten-week block is intended to provide you with a foundation in anatomy, embryology, and medical imaging necessary for success in the remainder of the curriculum and introduce 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 case-based presentations. This block provides an introduction and overview of the human body from a clinical perspective. You will be introduced to the concept of evidence-based medicine and learn independent study, self-directed learning, and deductive reasoning. You will use your cadaver, dissection, and adult learning skills to gain knowledge and to develop attitudes necessary for patient physical exams and diagnosis to aid you in being great doctors. The experience in COA will provide the setting for you to begin to develop a professional attitude toward patients, colleagues, and the entire health care community.

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

1. Describe the gross anatomy of a given structure or system and explain its relationships with other structures or systems (K1, L3, I1).
2. Recognize and describe the anatomy of a cross-sectional image and correlate elements of the image with normal and abnormal anatomy (K4-5, L3).
3. Demonstrate knowledge of human structure on cadavers or medical images, through dissection and surveys of medical images (K1, K4, L2-3, P1).
4. Integrate a diverse set of anatomical facts, images, or descriptions and correlate those with different clinical presentations (K1-4, L1-2, I1).

**Blocks changes for 2013-2014:**
Overall, performance in Block 1 Clinically Oriented Anatomy has been very strong over the last five years. Based on this and student feedback, our plans are to fine-tune the teaching initiatives we are currently utilizing in our Block.

**Actions for 2013:**

1. Increased number of formative quizzes.
2. Streamlined laboratory and didactic peer taught sessions.
3. Restructured embryology sessions with new leadership and new textbook.
4. Expanded incorporation of ultrasound to emphasize clinically relevant anatomical concepts.
5. Replaced lengthy, technically challenging dissections with prosections.

**Total # of Contact Hours, Percent Lecture, and Percent Other (identify types of teaching formats):** 157 contact hours total with 26% lecture, 68% small group dissection and 6% clinical correlation
Grading:

**Formative evaluations:** 5 computerized quizzes, 3 unit Embryology tutorial quizzes, 2 practice laboratory practicals, and online medical image quizzes.

**Summative Evaluations:** STS Sessions – faculty and practical assessments, 2 institutional written exams, 2 laboratory exams, and 1 National Board Subject Exam
Biology of Cells and Tissues (Y1B2; MSCI 5102)

Block Director: Jim Hutson, PhD  
Associate Block Director: Dan Webster, PhD  
Block Coordinator: Candace Brown

Other Faculty involved in course: Beverly Chilton, PhD; Charles Faust, PhD; Clinton MacDonald, PhD; John Pelley, PhD; Brandt Schneider, PhD; Ina Urbatsch, PhD; Sandra Whelly, PhD; Simon Williams, PhD.; Jeffrey Thomas, PhD.

Guest Speakers: Clinical faculty will present case reports on a weekly basis to connect basic science concepts to the practice of medicine.

Block Goals and Objectives: Biology of Cells & Tissues is designed to provide students with fundamental information concerning the traditional areas of biochemistry, cell biology and histology. The principles presented in this course will proceed from molecules to cells and then to tissues and organ systems. At each step the block will integrate structure and function.

1. Recognize and explain the functions of the key molecular components and steps of the synthesis, assembly, and degradation of biological macromolecules. (K)
2. Recall and relate critical molecular structures and chemical properties of biological macromolecules to their functions, including ligand/substrate recognition, enzyme reactions, formation of multi-molecular complexes and regulation. (K)
3. Relate digestive processes and body production of usable and storable chemical energy to the chemical composition of foodstuffs, including vitamin and nutrient requirements. (K)
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. (K)
5. Describe key features and operating principles of the organization of the human genome, control of gene expression and cell cycle regulation; (K)
6. Be able to describe the major cellular organelles and relate their structure to their function. (K)
7. Be able to list the 5 major tissues and relate their cellular and histological structure to their function. (K)
8. List the major organ systems and relate their cellular and histological structure to their general function. (K)
9. Appreciate that biochemistry, cell biology and histology are fundamental underpinnings essential for understanding the concepts of physiology and pathology. (K)
10. Demonstrate a professional attitude and good communication skills by effective participation in cooperative problem solving exercising as encountered in small group experiences (Histology Labs). (L4)
11. Perform database searches to supplement your knowledge base thereby becoming capable of independent, life-long learning. (K, L2-4).

Block changes for 2013-2014:
We have added weekly clinical correlations. We have reduced the block by one week and eliminated one of the section exams. We will be using the NBME customized exam rather than two shelf exams.

Total # of Contact Hours, Percent Lecture, and Percent Other (identify types of teaching formats):
Total contact hours (123 hr): 71 hr lecture (57.7%), 33 hr laboratory (26.8%), 7 hr clinical correlation (5.6%) 1 hr quizzes (1%); 11 hr exams (8.9%, including post-exam reviews).
Grading:
**Formative evaluations:** Sample questions will be provided in lecture and lab.
**Summative Evaluations:** Four quizzes, two section exams and a final NBME comprehensive exam.
Structure and Function of Major Organ Systems (Y1B3; MSCI 5103)

Block Director: John Fowler, PhD
Associate Block Director: Raul Martinez-Zaguilan, PhD
Block Coordinator: Candace Brown

Block Faculty: Guillermo Altenberg, MD/PhD; Patricia Aristimuño, MD; Pablo Artigas, PhD; John Baldwin, MD; Beverly Chilton, PhD; Diana Dreimane, MD; Jannette Dufour, PhD; John Fowler, PhD; David Hodges, MD; Cynthia Jumper, MD, PhD; Michaela Jansen, PhD; Joaquin Lado-Abeal; Lorenz Lutherer, MD/PhD; Raul Martinez-Zaguilan, PhD; Tedd Mitchell, MD; Reid Norman, PhD; Kenneth Nugent, MD; Jose Perez-Zoghibi, PhD; Luis Reuss, MD; Bryan Sutton, PhD; Surendra Varma, MD.

Block Goals and Objectives:
The material presented in this Block is drawn from the traditional discipline of physiology with contributions from biochemistry, histology, and nutrition to address the basis of human health from the molecular, cellular, and physiological levels to clinical applications. The various organ systems of the body will be covered through a series of lectures, interactive question and answers sessions, independent study sessions, team problem-solving sessions, clinical correlations, and review sessions. Organ systems covered include cell, cardiovascular, respiratory, renal, gastrointestinal, endocrine, and sex and reproduction 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. This requires developing the ability to address complex problems in a logical, systematic fashion. Clinical examples will be used throughout the Block to assist the student in seeing the relevance of the material presented and applying their knowledge and skills to the practice of Medicine. 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.

1. Students will be able to describe each organ system from knowledge of its basic molecular, cellular, and physiological function as obtained from basic and applied clinical scientific research.

   K. Medical Knowledge, 1. Describe the application of the scientific method for solving problems in the basic and clinical sciences.

2. Students will be able to describe how organ systems interact to contribute to the homeostasis of health.

   K. Medical Knowledge, 3. Integrate the patient interview and physical examination findings with medical knowledge to identify the clinical problems of patients, formulate differential diagnoses, apply the scientific method and develop plans for diagnostic investigation, treatment, and management.

3. Students will be able to predict the changes in organ system function that occur when the behavior of an organ system changes or fails with disease.

   K. Medical Knowledge: 3. Integrate the patient interview and physical examination findings with medical knowledge to identify the clinical problems of patients, formulate differential diagnoses, apply the scientific method and develop plans for diagnostic investigation, treatment, and management.

4. Students will describe selected clinical problems in terms of changes in the underlying organ and whole system physiology.

   K. Medical Knowledge: 3. Integrate the patient interview and physical examination findings with medical knowledge to identify the clinical problems of patients, formulate differential diagnoses, apply the scientific method and develop plans for diagnostic investigation, treatment, and management.

5. Students will be able to describe the measurement of selected laboratory tests and diagnostic
procedures and interpret how they relate to the underlying physiology/pathophysiology.

K. Medical Knowledge: 4. Describe the application of laboratory tests and diagnostic procedures and interpret their results.
K. Medical Knowledge, 6. Participate in the selection and performance of basic diagnostic and therapeutic procedures.

6. Students will be able to critically evaluate new clinical knowledge with an understanding of the underlying physiological/pathophysiological processes.

L. Practice-Based Learning and Improvement: 1. Apply evidence-based care to patients and use skilled clinical reasoning and the current state of medical art and science.
L. Practice-Based Learning and Improvement: 4. Demonstrate commitment to life-long learning, including self-directed study of basic and clinical science, critical assessment of the medical literature, and the use of evidence-based medicine.

Total # of Contact Hours, Percent Lecture, and Percent Other (identify types of teaching formats):
Approximately 114 hours total with 69% classroom lectures, 12% interactive question-and-answer sessions, and 19% for the remaining Independent Study sessions, Clinical Correlations, Team Problem-Solving sessions and Reviews.

Grading:
Summative Evaluations: Five section quizzes, 5 section exams and a final cumulative NBME Physiology examination.
Host Defense (Y1B4; MSCI 5104)

Block Director: Jane Colmer-Hamood, PhD
Associate Block Director: Abdul Hamood, PhD
Block Coordinator: Candace Brown

Other Faculty involved in course: Randall T. Amonett, DDS; Steven Berk, MD; Robert K. Bright, PhD; Jane Colmer-Hamood, PhD; Sharmila Dissanaike, MD; Joe A. Fralick, PhD; Abdul N. Hamood, PhD; Richard Lampe, MD; Rial D. Rolfe, PhD; Afzal Siddiqui, PhD; Richard Winn, MD.

Block Goals and Objectives: This block introduces both the agents that can invade the body and cause disease (medical microbiology) and the defense system of the body (the immune system). The block provides a survey of medically important microorganisms, their identification and the mechanisms through which they cause disease. Specific diseases associated with particular pathogens, including diseases related to host response to the microbe, are presented. Clinical correlations relate the microbes to specific organ systems or disease processes (e.g., necrotizing soft tissue infections). It covers the development of the immune system, effector functions of the immune system in health – defense of the body against microbes, transplanted tissues, and tumors; and the dangers of inappropriate immune responses—allergy, autoimmunity, and immunodeficiency. Prevention and treatment of infections, both immunologic and pharmacologic, are introduced. Team-based learning sessions, vignettes, case studies, and wet laboratory exercises continue the clinical perspective and encourage self-directed as well as cooperative learning. At the completion of Host Defense Block 4, the students should be able to:

1. Categorize the organisms that cause disease in humans, list examples of the virulence factors produced by selected microbes and summarize the pathogenic mechanisms used by various organisms to cause disease. (K-1, L-2, L-3, I-1)
2. Describe ways to control microbes, to prevent infection from occurring and to manage infection once it has taken place. (K-1, K-3, K-4, K-5, L-2, L-3, I-1)
3. 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. (K-1, K-3, K-4, K-5, L-2, L-3, L-6, I-1)
4. Differentiate between innate and adaptive immune responses and the mechanisms that produce them; and, describe how these two parts of the immune system are interrelated. (K-1, K-5, L-3, I-1)
5. Describe and compare how these responses protect the host from microorganisms, tumors, and other foreign antigens. (K-1, K-4, K-5, L-2, L-3, I-1)
6. Recognize the dangers of inappropriate immune responses — allergy, autoimmunity and immunodeficiency and connect specific diseases with a particular inappropriate immune response. (K-1, K-4, K-5, L-2, L-3, I-1)

Block changes for 2013-2014:
The portion of the block covering the microbes will be first this year, with the development of the immune system and the responses to specific diseases taught last. The mycology material will be completely revised. Molecular pathogenesis will be integrated into sessions that cover the relevant organisms. After the last block exam, and prior to the NBME final exam, a series of clinical correlations will review the microbes and immune responses in organ system context. To aid in integration of the material, these sessions will include clinical vignettes couched as first, second, and third order questions. Content is under continual review for clinical relevance.

Total # of Contact Hours, Percent Lecture, and Percent Other (identify types of teaching formats):
~140 contact hours for unit material, including 6 hours of review in clinical context for NBME; 57%
lecture, and 43% other (team-based learning sessions, case studies, clinical correlations, laboratory-based exercises, self-directed web-based learning assignments, interactive lectures via Q&A or the audience response system, and interactive reviews).

**Grading**

**Formative evaluations:** online exercises in interpretation of immunologic tests for detection of host response and assessment of immune status; exercises in interpretation of microbiological stains and identification of various microbes; other online vignette question sets. These provide the student an opportunity to earn a total of 1 percentage point added to their block exam grade.

**Summative Evaluations:** Team-based learning sessions with in-class case studies that allow the students to search for material outside of the textbooks and class materials and write group reports for small portion of grade, 0.5% each, total 3%; 3 or 4 block examinations, 74%; customized NBME cumulative final, 23%. 
Basic Medical Spanish (Y2; MSCI 6106)

Block Director: Robert Casanova, MD
Block Coordinator: TBN

Other Faculty involved in course: None

Block Goals and Objectives: The population of West Texas has a rich cultural heritage – 30% of our patients overall are Hispanic. Communication and professionalism are key elements of our curriculum. As the Spanish-speaking population of the US continues to grow, basic medical Spanish becomes increasingly important for the cultural responsiveness of our medical students to the health care needs of the Spanish-speaking population.

To meet this need the School of Medicine created a web-based course, required of all MS2 students, that includes one interactive session in the form of a standardized patient encounter (OSCE) to be completed by December of Year 2 (Date to be announced).

1. Establish rapport by greeting the patient and introducing him/herself to the patient and the patient’s family in a culturally appropriate fashion (L1, L2, I1, I2, P1, P2, S3)
2. Assemble basic demographic information in Spanish (C2, P1, P2, S3)
3. Name body parts and basic common diseases in Spanish (C2, K2, L3, P1, P2, S3)
4. Guide a patient through a basic physical exam in Spanish (C2, K2, I1, I2, P1, P2, S3)

Block changes for 2013-2014:
1. None

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

Grading System
Summative Evaluations: OSCE
Required textbooks: (Optional and available in Student Affairs) Complete Medical Spanish by Joanna Rios (McGraw-Hill)
Block Name: Patients, Physicians & Populations (P3-2)/ Development of Clinical Skills (DOCS-2) MSCI-6199
(Y2B5; Year-long Longitudinal Block)

Block Directors: Betsy Goebel Jones, EdD (P3) and Fiona Prabhu, MD (DOCS)
Associate Block Directors: Patti Patterson, MD and Lara Johnson, MD (P3)
Janice Stachowiak MD and Rebecca McDonald MD (DOCS)
Block Coordinator: Valerie Tipton


Block Goals and Objectives:
The overarching goals for P3-2/DOCS-2 are to continue students’ preparation to learn medicine at the bedside and gain the knowledge and skills necessary to understand and influence factors affecting the health of their patients. **Key M52 themes include Quality and Safety, Patients and Families, Career Planning.**

Course Learning Objectives for P3-2: **After completing P3-1, students should be able to:**

- Demonstrate effective communications skills. Students will be able to use the following interviewing and communication skills – Establishing Rapport, Collaborative Language, Explicit Caring, Non-directed Facilitation, Silence, Active Listening, Open-ended Questioning, Restating and Summarization, Addressing Feelings with the Patient. (I1, I2)
- 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. (I1, I2, P1, P2, P3, P4)
- 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. (L2, L3, L4, S2)
- Demonstrate sensitivity to the diverse factors affecting the health of patients, 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. (C1, I1, I2, P2, S2)

Course Learning Objectives for DOCS-2: **After completing DOCS-1, students should be able to:**

- Demonstrate ability to gather and record a patient’s history. Students will be able to obtain a chief complaint, a history of present illness, take a medication and allergy history, the past medical history, a family and social history and a systems review. (C2, K3, I2)
- Demonstrate skills in basic physical examination. Accurately measure and record vital signs (blood pressure, heart rate, respiratory rate, temperature, and body mass index). Perform and record the physical examination of the following major body systems: head, ears, eyes, nose, mouth, oropharynx, neck, chest, cardiac, pulmonary, and abdomen. Demonstrate appropriate use of the diagnostic tools necessary to perform these examinations. (K2, K3)
- Demonstrate skills in communicating medical information orally and in writing. Demonstrate ability to organize and document appropriately formatted entries of pertinent clinical data. Demonstrate ability to communicate effectively with patients, fellow students, clinic staff and faculty. (B1, D2)

**Block changes for 2013-2014:** New format and schedule
Total # of Contact Hours, Percent Lecture, and Percent Other (identify types of teaching formats): 108 hours [26% clinic; 18% didactic; 27% small group; 17% workshop; 3% examination/OSCE; 9% community experiences]

**Grading System**

**Formative evaluations:** Written portfolio assignments, clinical notes, clinical procedure logs  
**Summative Evaluations:** Written examinations, OSCEs, Small Group Assessments  
**Grading Categories:** Honors, Pass, Fail; Honors available via optional group project only  
**Required textbooks:** *Bates’ Guide to Physical Examination and History Taking, 10th Edition* by Lynn Bickley  
**Date of last Triennial Review:** 2011
General Principles, Multisystem Disorders and Cancer (Y2B2; MSCI 6102)

Block Director: Jane Colmer-Hamood, PhD
Associate Block Director: David C. Straus, PhD
Block Coordinator: Amanda Jeter

Other Faculty involved in course: Raed Alalawi, MD; Steven Berk, MD; Gilbert Berdine, MD; Michael Blanton, PhD; Everardo Cobos, MD; Jane A. Colmer-Hamood, PhD; Richard Dickerson, PhD; Dale Dunn, MD; Nicholas D’Cunha, MD; Suzanne Graham, MD; Fred Hardwicke, MD; Cynthia Jumper, MD; Safaa Labib, MD; J. Barry Lombardini, PhD; Jennifer Mitchell, MD; Barbara Pence, PhD; Michael P. Phy, DO; Leslie Shen, PhD; Peter Syapin, PhD; Vijay Tonk, PhD; Irfan Warraich, MD; Yan Zhang, PhD; Mimi Zumwalt, MD

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

1. Discuss fundamentals of population health, study design, pharmacokinetics, pharmacodynamics, autonomic pharmacology, and neurotransmitter systems. (K-1, L-3)
2. Describe the common clinical presentation of major diseases, and the underlying alterations of structure and function that are their causes, of the following major organ systems: hematopoietic, lymphoreticular, musculoskeletal. (K-1, K-4, K-5, L-2, L-3)
3. Utilize patient history and appropriate laboratory, radiology or other tests to diagnose infectious diseases and cancer in general, and diseases of the hematopoietic, lymphoreticular, and musculoskeletal systems. (K-1, K-4, K-5, L-2, L-3)
4. Select and administer therapeutic drugs used to treat infectious diseases, cancer, and specific diseases of the hematopoietic, lymphoreticular, and musculoskeletal systems. (K-1, K-4, K-5, L-2, L-3)
5. Apply statistical analysis and principles of evidence-based medicine to recognize the epidemiology of a disease, the usefulness of screening and diagnostic tests, and the appropriateness of data obtained from case-controlled studies. (K-1, K-4, K-5, L-2, L-3, L-4)
6. Analyze patient case histories (vignettes) in the context of basic and clinical science knowledge of cancer, infectious diseases, and/or the hematopoietic, lymphoreticular, and musculoskeletal systems to determine the etiology of the disease affecting the patient and the most appropriate course of action. (K-1, K-3, K-4, K-5, L-2, L-3, L-4, L-1)

Block changes for 2013-2014: The block will be first block in Year 2 to allow students to learn the principles of pathology, oncology, and infectious disease that will be common threads throughout the remaining blocks of year 2. Medical genetics will be covered in this block, having been consolidated from year 1 and 2. The use of the First Aid textbook set (General Principles, Vol. 1, and Organ systems, Vol. 2) and Pathoma will focus the content of the block and provide a common outline for all faculty teaching in the block. Additional effort will be made to encourage active learning and student
participation through use of alternative teaching methods such as “Physician in the Hot Seat” and small group discussions.

**Total # of Contact Hours, Percent Lecture, and Percent Other (identify types of teaching formats):**
~115 hours of contact; 62% lecture, 38% alternative format (clinical correlations, team-based learning sessions, small group work sessions, large group discussions, case study sessions, reviews).

**Grading System**

**Formative evaluations:** Team-based learning sessions with in-class case studies that allow the students to search for material outside of the textbooks and class materials; online exercises in biostatistics and medical genetics; on-line vignette questions sets.

**Summative Evaluations:** 3 block exams and a comprehensive final exam; graded group assignment for evidence-based medicine/biostatistics component.
Integrated Neurosciences (Y2B1; MSCI 6101)

Block Director: Art Freeman, PhD
Associate Block Director: Lisa Popp, Ph.D.
Block Coordinator: Amanda Jeter

Other Faculty involved in course: Susan Bergeson, PhD; Michael Blanton, PhD; Tom Cammack, MD; Miles Day, MD; John DeToledo, MD; Richard Dickerson, PhD; John Fowler, PhD; Kenn Freedman, MD; Chuck Giles, Ph.D.; Jongyeol Kim, M.D.; Raj Koul, PhD; Lorenz Lutherer, MD/PhD; Stephen Manning, MD; Terry McMahon, MD; Reid Norman, PhD; Leigh Reel, Ph.D.; Ted Reid, PhD; Ali Roghani, PhD; Barbara Sawyer, PhD; Steven Sawyer, PT/PhD; Chip Shaw, EdD; Roger Sutton, PhD; Peter Syapin, PhD; Tom Tenner, PhD; Dan Webster, PhD; Chuang Kuo Wu, MD, PhD; Steven Zupancic, PhD.

Guest Speakers:

Block Goals and Objectives: (linked to TTUHSC School of Medicine Institutional Vision, Goals, and Objectives). This Block provides students with the foundation of autonomic pharmacology required for the rest of the curriculum. The remainder of the Block includes neuroanatomy, neurohistology, neuropathology, neuropharmacology, and introductions to neurology and psychiatry. The Block provides students with knowledge to enhance problem-solving, and to establish general relationships between neurological systems and the signs and symptoms of injury and disease. Future physicians acquire fundamental knowledge about mental illness so they can provide the best care possible to their patients. The Block increases future physicians’ understanding of, and respect for, the patient’s perspective and promotes self-directed learning in mental illness. At Block’s end, students can:

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

Blocks changes for 2013-2014:

1. The General Principles component (pharmacodynamics, pharmacokinetics, evidence-based medicine, epidemiology) from prior years has been moved to another Block. This makes the overall flow of the Block more coherent.

2. The Block will be the second Block of MS2 instead of the first Block. Students will learn basic pathology in the first Block, which will better prepare them for the neuropathology component of the Integrated Neurosciences Block.

3. All Laboratory Guides have again been revised for enhanced clarity and consistency of format. A component that involves actively working through USMLE-style questions has been added to the each Lab.
3. Lecture vacancies created by departure of three clinical faculty will be filled.

4. An intra-Block day off has become the norm for this Block. This year, that day off will be Friday, November 22, which precedes the third Block Exam on Monday, November 25. There are no Block sessions scheduled for the rest of that week, giving the students a nice Thanksgiving break.

5. An additional lecture on Eye Movement disorders has been added to the end of the Block.

6. The NBME Shelf Exam in Neurosciences will count for 25% this year, up from 24%. Attendance at the Team-Based Learning session will count toward the 2% professionalism component of the Block grade.

Total # of Contact Hours, Percent Lecture, and Percent Other (identify types of teaching formats):
~156 contact hours; 58% lecture; 42% other (clinical correlations, case discussions, patient interviews, laboratories, videos, team-based learning).

Grading System
Formative evaluations: Q&A sessions, Case Discussions
Summative Evaluations: Block Exams (4 - 18.25% each), Professionalism (2%), NBME Shelf Exam Final (25%)
Systems Disorders I (Y2B3; MSCI 6103)

Block Director: J Barry Lombardini, Ph.D.
Associate Block Director: Gilbert Berdine, M.D.
Block Coordinator: Amanda Jeter

Block Faculty: Suzanne Graham, MD (Pathology); Vivian Mamlok, MD (Pathology); Ruc Manh Tran MD (Pathology); Irfan Warraich, MD (Pathology); Alex Suarez MD (Internal Medicine); LeighAnn Jenkins, MD (Internal Medicine); Kenneth Nugent, MD (Internal Medicine); Cynthia Jumper, MD (Internal Medicine); Sharma Prabhakar, MD (Internal Medicine); Melvin Laski, MD (Internal Medicine); Aliakbar Arvandi (Internal Medicine); Raed Alalawi, MD (Internal Medicine); Steven Berk, MD (Internal Medicine); Tenner, PhD (Pharmacology); Peter Syapin, PhD (Pharmacology); Richard Dickerson, PhD (Pharmacology); Adobi Kanu, MD (Pediatrics); MD; John Griswold, MD (Surgery); Gilbert Berdine, MD (Internal Medicine); Ariwan Rakvit, MD (Internal Medicine); Tom Cammack (Urology); Allan Haynes (Urology); Luis Urrutia (Internal Medicine); Richard Winn (Internal Medicine); Jason Wischmeyer (Internal Medicine); Yasir Yaqub (Internal Medicine); Yan Zhang (Family Medicine).

Block Goals and Objectives:

1. Describe the major diseases, and the underlying alterations of structure and function that are their causes, of the following major organ systems: cardiovascular system; respiratory system including the mediastinum; kidney; and gastrointestinal system, including the pancreas, biliary tract, and liver.
2. Correlate the pathological changes in the major organs covered in this block with respect to the normal physiological condition.
3. Apply this information in sample clinical scenarios offered in class.
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.

Block changes for 2012-2013:
Organ-based content has been aligned to normal physiology from the first year curriculum, with emphasis on relevance to clinical medicine and preparation for upcoming standardized examinations – Changes in some faculty personnel presenting lectures; less class time (~9% decrease).

Total # of Contact Hours, Percent Lecture, and Percent Other (identify types of teaching formats): 116 Hours; Lecture Sessions (85.8%), Large Interactive Group Sessions (2.6%), Case Studies (4.3%), Small Group Sessions (1.7%), Review Sessions (5.6%).

Grading
Summative Evaluations: Faculty generated examinations - 4; Comprehensive final examination.
System Disorders 2 and Life Span Issues (Y2B4; MSCI 6104)

Block Director: Dan Webster, PhD
Associate Block Director: Brian Pomeroy, MD
Block Coordinator: Amanda Jeter

Block Faculty: Alalawi, Raed; Farooqi, Naghma; Marbley, Aretha; Syapin, Peter; Arentz, Candy; Farrell, Tommie; Mitchell, Kelly; Tenner, Tom; Baker, Teresa; Freedman, Kenn; Nelius, Thomas; Tran, Ruc; Berk, Steven; Gregg, Clint; O’Banion, Scott; Varma, Surendra; Burgess, Nathan; Hust, Christie; Pence, Barbara; Wachtel, Mitchell; Casanova, Robert; Jenkins, Marjorie; Phy, Jennifer; Warner, Ron; Chauncey, Kathy; Williams, Simon.

Block Goals and Objectives: The Systems Disorders II and Life Cycles block provides an overview of function, pathophysiology, and treatment of disease processes affecting the endocrine and reproductive systems, an introduction to dermatology, an overview of vitamins, and life cycle changes. Traditional lectures are combined with interactive sessions and case studies to provide fundamental knowledge of congenital and pathophysiologic conditions affecting the female and male reproductive organs. Pharmacology used in treating these conditions will also be discussed. A similar approach is used to familiarize the student with the clinical presentation, underlying pathophysiology, and pharmacologic treatment of diseases of the endocrine system. The block concludes with presentation of essentials of dermatology, vitamins, life cycles. At the conclusion of Systems Disorders II and Life Cycles the student will be able to:

1. Demonstrate an understanding of the pathophysiology and treatment of disease processes involving the hypothalamic-pituitary axis, the thyroid gland, the parathyroid gland, the adrenal gland and the endocrine pancreas. K1, K4-K6.
2. Demonstrate an understanding of the conditions that result from excess or deficiency of fat soluble and water soluble vitamins.
3. Demonstrate an understanding of the principles of eating disorders and disorders of bone and lipid metabolism affect patient care. K1, K4-K6, L2, L3, P1.
4. Demonstrate an understanding of the pathology and treatment of disorders involving the male and female reproductive organs.
5. Demonstrate an understanding of the pathophysiology of pregnancy and its treatment.
6. Demonstrate an understanding of fertility and contraception., Use the link above, then see K1, K4-K6, L2, L3, P1.
7. Demonstrate an understanding of the pathology of diseases of the skin. Use the link above, then see K1, K4-K6, L2, L3, P1.
8. Demonstrate an understanding of normal child development, disorders of sexual development and puberty, (the biology of aging, the ‘normal’ aging patient, pathophysiology and pharmacology peculiar to the aging patient and multidisciplinary approach to treating disease processes in the elderly) – K1, K4-K6, L2, L3, P1, P2.

Blocks changes for 2014:
Based upon administrative and student feedback, we plan to adjust the relative allocation of lecture time to increase the relevance of this block to Step 1.

Total # of Contact Hours, Percent Lecture, and Percent Other (identify types of teaching formats): 70 contact hours total with 90% large-group active learning sessions, 1% laboratory exercises, and 7% clinical case studies or correlations. In addition, significant self-study time will be devoted to the completion of the video project.
**Summative Evaluations:** There will be three instructor-written exams (25% each), two cumulative final exams (NBME SHELF exams, 10% each), evaluation of the students’ video recording result (3%), and the professionalism component (2%). The latter will be comprised of the assessment of student participation in faculty/block evaluations.
Courses taken only by students enrolled in the Family Medicine Accelerated Track

Family Medicine Accelerated Track 1 (FMAT 6201)

Block Directors: Ron Cook, DO, MBA, Betsy Goebel Jones, EdD
Block Coordinator: Kale Bates

Course Faculty: Colmer-Hamood, Cook, Dickerson, Dufour, Edwards, Fowler, Freeman, Haynes, Jones, Klein, Lee, Linton, Lutherer, Martinez-Zaguilan, Mitchell, Peck, Prabhu, Ragain, Tenner, Webster

Block Overview: This 8-week concentrated course is completed during the summer between Year 1 & Year 2 under the supervision of Family Medicine and basic sciences faculty. This systems-based course is team-taught by family medicine physician and basic sciences faculty to prepare students to begin the Longitudinal Family Medicine Clerkship during Year 2.

Block Objectives:
• Describe the major diseases, and the underlying alterations of structure and function that are their causes, of the following major organ systems: cardiovascular; respiratory; musculoskeletal; gynecological/urological; gastrointestinal; endocrine; dermatological; neurological
• Identify the key diagnoses and conditions common to family medicine ambulatory and inpatient settings
• Use basic science and clinical science knowledge to interpret clinical scenarios
• Explain the fundamental concepts of pharmacokinetics and pharmacodynamics
• Demonstrate skills in basic physical examination. Perform and record the physical examination of the following major body systems: head, ears, eyes, nose, mouth, oropharynx, neck, chest, cardiac, pulmonary, and abdomen. Demonstrate appropriate use of the diagnostic tools necessary to perform these examinations.
• Demonstrate skills in communicating medical information orally and in writing. Demonstrate ability to organize and document appropriately formatted entries of pertinent clinical data. Demonstrate ability to communicate effectively with patients, fellow students, clinic staff and faculty.
• List 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.
• 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.

Total # of Contact Hours, Percent Lecture, and Percent Other (identify types of teaching formats): This course meets 8:00 to 12:00 pm, Monday through Thursday for 7 weeks, with an additional week for reading and independent study. Additional sessions are scheduled 1-2 afternoons each week for physical examination or procedures workshops, ultrasound, and other training.

Grading: Pass/Fail

Formative evaluations: Daily quizzes covering the previous day’s content; Student-generated objective standardized clinical exams (OSCEs) in which each student will participate in preparing the case and/or serving as the patient and in serving as the student doctor

Summative Evaluations: Midterm examination and Final examination covering each instructional week (15 questions per week); OSCE with Standardized Patients
<table>
<thead>
<tr>
<th>Week</th>
<th>Monday</th>
<th>Tuesday</th>
<th>Wednesday</th>
<th>Thursday</th>
<th>Friday</th>
</tr>
</thead>
<tbody>
<tr>
<td>Week 1</td>
<td>NO CLASS</td>
<td>class 8:am-1:00 pm</td>
<td>Workshop: 1-2:30 pm; Pulmonary Sounds; Prabhu</td>
<td>class 8 am-1:00pm</td>
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</tr>
<tr>
<td>June 10-13; Respiratory</td>
<td>class 8-11:50am</td>
<td>class 8-11:50</td>
<td>FM Breakfast Workshop: 8:45-10am; MSK ultrasound; Paxton/Fellows</td>
<td>class 10-11:50</td>
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<tr>
<td>Week 2</td>
<td>ALL CLASSES IN SIM CENTER</td>
<td>class 8-11:50</td>
<td>Workshop: 1-2:30 pm; Musculoskeletal; Mitchell</td>
<td>1:2:30; Student Generated OSCE</td>
<td>Workshop: Cardiac Ultrasound (Peiris)</td>
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<tr>
<td>June 17-20; MSK/Rheum</td>
<td>class 8-11:50am</td>
<td>class 8-11:50</td>
<td>Class: Heart Sounds 10:30-12; Student-Generated OSCE</td>
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<tr>
<td>Week 3</td>
<td>class 8-11:50am</td>
<td>class 8-11:50am</td>
<td>Workshop: 1-2:30 pm; Breast/pelvic/rectal, testicular exams; Haynes</td>
<td>1:2:30; Student Generated OSCE</td>
<td></td>
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<tr>
<td>June 24-27; Cardio-vascular</td>
<td>class 8-11:50am</td>
<td>class 8-11:50am</td>
<td>8am-5pm; Visit Amarillo Campus</td>
<td>1:2:30; Student Generated OSCE</td>
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<tr>
<td>Week 4</td>
<td>Independent Study</td>
<td>Dubin: EKGs</td>
<td>class 8-11:50am</td>
<td>class 8-11:50am</td>
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<tr>
<td>July 1-5</td>
<td>8-9:30am; Midterm Exam</td>
<td>class 8-11:50am</td>
<td>Workshop: 1-2:30 pm; Breast/pelvic/rectal, testicular exams; Haynes</td>
<td>1:2:30; Student Generated OSCE</td>
<td></td>
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<tr>
<td>Week 5</td>
<td>July 8-11; OB/Gyn, Urology, Nephrology</td>
<td>class 10am-2 pm</td>
<td>8am-5pm; Visit Permian Basin Campus</td>
<td>1:2:30; Student Generated OSCE</td>
<td></td>
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<tr>
<td>Week 6</td>
<td>class 8-11:50am</td>
<td>class 8-11:50am</td>
<td>[Klein] Martinez-Zagulian/Ragain</td>
<td>[Klein] Dufour/Ragain</td>
<td></td>
</tr>
<tr>
<td>July 15-18; GI/Endo</td>
<td>3-5pm; Nutrition; Chauncey</td>
<td>2-4pm; EHR training; Bradley</td>
<td>Workshop: 1-3pm; Diabetes; Chauncey</td>
<td>Workshop: 3-5pm; Abdominal Exam; Santana</td>
<td></td>
</tr>
<tr>
<td>Week 7</td>
<td>class 8-11:50am</td>
<td>class 8-11:50am</td>
<td>Workshop: 1-2:30 pm; Neurop Exam; Peck</td>
<td>1:4PM; FMAT-1 OSCE</td>
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<tr>
<td>July 22-25; Neuro/Psych</td>
<td>class 8-11:50am</td>
<td>class 8-11:50am</td>
<td>Workshop: 10-11:50; Derm; Linton</td>
<td>FMAT2 Orientation</td>
<td></td>
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<tr>
<td>Week 8</td>
<td>class 8-11:50am</td>
<td>class 8-10am</td>
<td>8-9:30am; Final Exam</td>
<td>8am-5pm; Visit Permian Basin Campus</td>
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<td>July 29-31; Derm</td>
<td>class 8-11:50am</td>
<td>8-9:30am; Final Exam</td>
<td>Workshop: 10-11:50; Derm; Linton</td>
<td>FMAT2 Orientation</td>
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</tbody>
</table>
Family Medicine Accelerated Track 2 (FMAT 6202)

Clerkship Directors: Franklyn Babb, MD, Fiona Prabhu, MD
Co- Clerkship Director: Kelly Klein, MD
Clerkship Coordinator: Kale Bates
Other Participating Faculty: Cook, Linton, Jones

Clerkship Overview:
This is a longitudinal Family Medicine Clerkship that introduces students to the care of the undifferentiated ambulatory patient. Emphasis will be on clinical problem-solving, management of common problems, and prevention and health promotion. Learning objectives from the Geriatrics and Palliative Care rotations are also incorporated. Most experiences are scheduled for Tuesday and Thursday mornings to allow students to maintain their ongoing MS2 courses. For ambulatory clinic experiences, students are paired with a family physician mentor.

FMAT2 GOALS AND OBJECTIVES

I. ASSESS THE PATIENT IN THE AMBULATORY SETTING
   a. Demonstrate effective verbal, non-verbal, and written communication with the patient and family.
   b. Elicit a pertinent history.
   c. Demonstrate the ability to perform a pertinent physical exam.
   d. Demonstrate the ability to communicate effectively with other members of the health care team.
   e. Demonstrate the ability to generate a problem list and appropriate assessment of the problem.
   f. Counsel and educate patients and families about acute illness, chronic illness, harmful personal behaviors/habits, and health maintenance strategies.
   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.
   h. Perform concise problem-focused presentation of the patient that reflects critical thinking in clinical decision making.

II. 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.
   b. Demonstrate the ability to perform a complete physical examination.
   c. Demonstrate the ability to communicate effectively with other members of the health care team.
   d. Appreciate the interaction between family medicine and the health care system (consultants, nursing, allied health professionals, social services, administrative staff, etc.).
   e. Demonstrate the ability to take care of the patient on a daily basis in the hospital setting.
   f. Demonstrate the ability to deliver a concise and pertinent verbal presentation of the patient’s daily care.

III. OUTLINE THE CARE OF THE PATIENT ACROSS THE CONTINUUM OF THE LIFE CYCLE
   a. Demonstrate the ability to educate the patient about disease prevention.
   b. Understand appropriate health maintenance recommendations by age, sex, and risk.
   c. Develop an awareness of psycho-social factors that have an impact on wellness and illness of both the patient and their family and incorporate into a management plan.
   d. Demonstrate respect for all cultures, genders, and ethnicities.

IV. LIST COMMON DISEASES SEEN BY FAMILY MEDICINE PHYSICIANS
   a. Correctly diagnose diseases commonly seen in the family medicine setting.
b. Develop a logical management plan for patient care, based on evidence-based medicine.

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.


a. Describe social, community, and economic factors that affect patient care

b. Describe community based interventions to modify or eliminate identified risks for disease or injury

Grading: Family Medicine Clerkship NBME is delayed until the MS3 year

<table>
<thead>
<tr>
<th>COMPONENT</th>
<th>Honors</th>
<th>High Pass</th>
<th>Pass</th>
<th>Fail</th>
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</thead>
<tbody>
<tr>
<td>Clinical Skills</td>
<td>≥ 3.7 avg</td>
<td>2.5-3.69 avg</td>
<td>≤2.5 avg</td>
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<tr>
<td>NBME Family Medicine</td>
<td>≥ 80th percentile</td>
<td>≥70 – 79th percentile</td>
<td>≥5 - 69th percentile</td>
<td>&lt;5th percentile</td>
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<tr>
<td>OSCE</td>
<td>Honors ≥ 91</td>
<td>Pass ≥75%</td>
<td>&lt; 75%</td>
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Other Components:

<table>
<thead>
<tr>
<th>Component</th>
<th>Complete</th>
<th>Incomplete</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clinical competencies checklist</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Self Assessment online test</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Case Presentation</td>
<td>Completed</td>
<td>Incomplete</td>
</tr>
</tbody>
</table>

Formative evaluations: mid-rotation clinical evaluation; completion of online self assessment test in preparation for Family Medicine NBME

FMAT2 Summary Sheet, 2013-2014

<table>
<thead>
<tr>
<th>FM Service</th>
<th>Clinic</th>
<th>Geriatrics</th>
<th>Palliative</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fall: 6 half-days</td>
<td>Fall: 14 half-days</td>
<td>Longitudinal experience with monthly or bi-monthly workshops</td>
<td>Fall: 2 half-days</td>
<td>Student Enrichment Activities (SEA), Wednesday mornings throughout year</td>
</tr>
<tr>
<td>Spring: Full days, Thurs-Mon</td>
<td>Spring: 14 half-days Tues/ Thurs mornings</td>
<td></td>
<td>Spring: 2 half-days Scheduled by students</td>
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</tbody>
</table>

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Elective Courses

The School of Medicine offers a variety of elective courses that can be taken by students in either the first or second year, or by students from both years. These courses are designed to enrich the educational experience and to complement topics covered elsewhere in the curriculum. These courses are zero credit courses, meaning that they do not contribute to credits required for graduation. However, they do appear on the transcript of a student who successfully completes the course. In general, students are only registered for these courses upon completion of the course requirements.

Not all elective courses are offered every year and elective availability will be announced within the first month of the academic year. Each course has limitations in the number of participants and utilize various methods for selection of students. It is generally advised that students should not take more than one elective per year and monitor potential impact of electives on their performance in the standard curriculum. Students concerned that participation in an elective is negatively affecting their overall performance should contact the course director or the Office of Student Affairs for advice and counsel. Current elective course are described briefly below and more detailed syllabi for each course will be made available after the beginning of the semester.

Global Health 101
There is a growing population of students who are interested in cultivating their understanding about the global health field to facilitate career choice decisions and future humanitarian involvement. The primary goal of this course is to offer exposure to topics in global health, but to also tailor the knowledge to include theory and real-world practice. Students will complete learning modules ranging from cultural competency, relevant health issues, to the process of building a clinic on their own. As part of this real-world practice, health simulations concerning two common global health issues – malaria and cholera, will be incorporated. Accordingly, another major goal is to highlight interprofessional teamwork in diagnosis, prevention, and treatment in a resource-deprived setting. It is recognized that interprofessional interactions vary greatly depending on the nature of the clinic, the location of the clinic, the situation, and resources available. In recognition of the different roles required, there will also be clinical activities that cultivate clinical skills not covered elsewhere in the curriculum.
This course is open to up to 60 MS1/MS2 students and includes 12-14 sessions from August until March.

Preventive Medicine
This elective will educate first and second year medical students about the potential to incorporate preventive practices in medicine. This will involve a series of events including brown bag lectures, film screenings, and round-table discussions. A service component will also be required to complete the course. At the end of the elective, students should have a greater awareness about the need for preventive education for their future patients, and about the various ways in which they can utilize preventive practices as future physicians.
This course is open to up to 30 MS1/MS2 students and includes 9-10 sessions from October to March.

Business in Medicine
This elective will educate first and second year medical students about the fundamentals of business in medicine, be it starting a private practice or working in a hospital. This elective will highlight the fundamentals in accounting, finance, management, and marketing, while providing a list of resources for the students to obtain if they desire to learn more. After completing the fundamental curriculum, basic business applications will be taught. This will include an overview of the current healthcare system, health organization management, electronic health records, billing and coding, reimbursement, advance directives, and wills. Students will be instructed on how to read and understand financial statements, do some simple financial calculations, and utilize common management techniques and concepts. These educational goals are invaluable to anyone interested in a future career in medicine.
This course is open to up to 30 MS1/MS2 students and includes ~15 sessions from September to March/April.

**Future of Medicine**
As medical students, most education is geared at learning the human body through what has already been learned with the integration of modern methods and technology. However, what is described as modern knowledge/methods/technology is actually from the ideas and world of yesterday. The advancements happening today are numerous and far reaching. The problem with today’s healthcare is that without the active pursuit, collaboration, and implementation of new research and peer-reviewed science into the clinical setting, progress will be slow and treatment of patients will be suboptimal. With this class, MS1s and MS2s will be able to hear from lecturers about what is nascent in the world of science today and how they try and use it for patient care. There will also be discussion sessions that will have students reading and sharing thoughts about recent peer-reviewed articles. Pre-chosen peer-reviewed articles will be available for each group session with the option of finding and reading outside articles that are relevant for the month’s theme and are of interest to the student. They will discuss how these advances can help and how they would integrate the information into today’s and tomorrow’s medicine.
This course is open to up to 30 MS1/MS2 students and includes 12 sessions from September to March/April.

**Introduction to Neurology**
This rotation exposes the student to basic principles of diagnosis and management of common neurologic conditions. Students learn skills in conducting neurologic exams, identifying signs and symptoms of neurologic disorders, and integrating signs and symptoms into syndromes. Students learn about basic neurologic disorders and neurologic complications of systemic conditions.
This course is open to 8 MS2 students and is aligned to the Integrated Neuroscience block.

**Introduction to Anesthesiology**
This elective will introduce the students to the specialty of anesthesia. The student will attend different types of anesthesia in various patient groups. They will participate in a pre-operative patient assessment for anesthesia, assessment of the airway and will learn basic airway management skills through hands-on sessions in the SimLife Center. The students will be introduced to pharmacology and physiology concepts applied to anesthesia. The will have the opportunity to follow anesthesia residents on the ICU, in OB, observe pain procedures and observe regional anesthesia procedures including brief orientation of the sono-anatomy of certain nerve blocks.
This course is open to 4 MS2 students and the dates are yet to be determined.

**Pre-hospital Emergency Medicine**
This elective will educate first and second year medical students about one of the major routes in which patients enter the healthcare field, namely the emergency room. Students will gain knowledge about what the patient encounters, beginning with first responders, through each subsequent step prior to hospital admission, and thus have a better understanding of the comprehensive care that a patient receives before they present to the ED physician. This educational goal is invaluable to those who are interested in a future career as Emergency Medicine physicians.
This course is open to up to 40 MS1/MS2 students and includes 13 sessions from August to March.

**The Patient Experience in Film**
Monthly viewing of a film depicting a unique aspect of the patient experience. A smaller group of students enrolled in the elective will be assigned to preview the film and lead the post-film discussion (on a rotating basis). At the end of the year each student will select a film to watch independently and
write a report on the unique aspect of the patient experience it portrays and how it will affect their future practice in medicine.
The number of students and times of meetings have not been determined at this time.

**Surgical Anatomy**
This course will provide an introduction and overview to surgical approaches to different regions of the human body from a clinical perspective. Students will observe and assist surgeons with surgical dissections of cadavers. The experience in Surgical Anatomy will provide students with a relevant correlation of anatomy as applied to surgical procedures. Participation in this elective requires the approval of the course director.

**Inter-Professional Teamwork Honors Elective**
This course focuses on the students’ professional development in assessing the healthcare as a system and practicing high performing inter-professional team skills that are necessary to achieve the six aims outlined by the Institute of Medicine (IOM). While working in inter-professional teams, learners apply their professional knowledge and team skills to resolve and reduce errors of a fabricated sentential event, case study. Experiential activities provide hands-on opportunities for students to develop a broad knowledge of the healthcare system and skills. Student teams will be recruited early in the year and the number of participants will be determined at that time.

**International Health Elective**
This elective is site specific with site-specific learning objectives. This elective allows students to experience the challenges of health care delivery with a required physician supervisor/evaluator in an international setting for up to 4 weeks. These experiences occur during the summer between MS1 and MS2 years and participant numbers are variable.

**Interprofessional Education**
Beginning in Fall 2013, all incoming students will be required to complete an online, self-directed course that introduces the general concepts of interprofessional education. This course will be completed during orientation and during the P3 component of the P3-1/Docs-1 course.

**Foundations for Interprofessional Collaborative Practice**
This online course provides an introduction to broad concepts related to four interprofessional core competencies for all healthcare providers. Online modules include: (a) roles/responsibilities, (b) interprofessional communication, (c) teams/teamwork, and (d) values/ethics for interprofessional practice.