SECTION II. EDUCATIONAL PROGRAM FOR THE M.D. DEGREE
PART B: NARRATIVE DATA AND TABLES

Educational Program Overview

Texas Tech Health Science Center, Paul L. Foster School of Medicine

The educational program at the Paul L. Foster School of Medicine in El Paso is an integrated curriculum organized around clinical presentations assigned to organ-system based course units. Clinical presentations (CPs) are the ways in which a person present to a physician, for example, the patient with abdominal pain. This integrated curriculum was inspired by the "Calgary curriculum," which has been in operation at the Faculty of Medicine at the University of Calgary in Alberta, Canada since 1994. The curriculum in El Paso integrates the basic and clinical sciences from the very outset of instruction; students learn anatomy, biochemistry, physiology and other basic science concepts and content needed to understand specific clinical presentations at the time that the presentation is being addressed. The relevance of particular basic science content is thus transparent to the learner. This pedagogical approach enhances knowledge comprehension; it has been shown by research to improve retention of the basic sciences and to promote the acquisition of diagnostic reasoning skills that are more like those of the expert, practicing physician.

The first two years of the El Paso curriculum consists of four major courses: ***Scientific Principles of Medicine; Medical Skills; Society, Community, and the Individual; and the Masters' Colloquium.*** Although these courses are described in the course description section of the database, illustrated graphically in ED-5, and discussed in detail in responses to specific Educational Program standards, it may be advantageous to the reader to have a broad overview of the curriculum as an introduction to the Educational Program section of the database.

Scientific Principles of Medicine (SPM)—This course can be described as the "centerpiece" of our curriculum. The content of all of the other courses in the educational program is coordinated with the material that is being studied in each of the nine specific units in the two year SPM course as listed below.

Sequential SPM Units

YEAR 1	YEAR 2
1. Introduction to Health and Disease	6. Renal Endocrine
2. Musculoskeletal/Neurology	7. Reproduction
3. Gastrointestinal/Nutrition/Hematology	8. The Mind and Human Development
4. Cardiovascular Respiratory	9. Dermatology and Special Senses
5. Integration of Systems	

With the exception of the "Integration of Systems" unit at the end of years 1 and 2 , each SPM unit is organized around a set of clinical presentations (CPs) related to a given topic (e.g., "fever" in the Introduction to Health and Disease unit) or body system (e.g., "abdominal pain" in the Gastrointestinal portion of the GI/Nutrition/Hematology unit). Over a two year period, students are introduced to 120 CPs encountered in medical practice (see Section II, Appendix 1 for listing of CPs). Each CP is organized by a knowledge "scheme" in the form of a branching flow chart or algorithm designed to present an

organized way to understand and respond to the complexities of the clinical presentation. These schemes serve as the basis for structured, integrated instruction in the basic biomedical sciences, pathophysiology, and clinical medicine. The CP schemes are used to develop "process work sheets," which are descriptions of the phases of the diagnostic process. Prepared by expert clinicians, process worksheets illustrate the phases of reasoning and thought processes one should go through when diagnosing a clinical presentation (see Section II, Appendix 2 for an example scheme and process worksheet). Students consult these process worksheets while they are reviewing "worked case examples" developed by faculty from real patient cases, frequently from their own panel of patients (see Section II, Appendix 3). These cases provide students the opportunity to utilize, practice, and examine the various phases and stages of the clinical reasoning process leading to specific diagnoses. This component of the instruction is provided primarily in small groups of ten students and a faculty tutor employing a "guided instruction" approach to teaching and learning. In guided instruction, students are presented essential information and provided direct guidance and feedback, as well as explicit examples of the concepts and procedures required by the discipline, rather than having to discover this information on their own, as is the case in Problem-Based Learning programs.

In every SPM unit, the small group sessions are always preceded by guided instruction in the basic science concepts of the medical domain the presentation encompasses. Students are introduced to the content and concepts of the disciplines of anatomy (including gross anatomy, neuroanatomy, histology, and embryology), biochemistry, genetics, immunology, microbiology, molecular biology, pathology, pharmacology, and physiology pertinent to the clinical presentations under study. This instruction is provided by basic science faculty members through a mixture of lectures, laboratories, computer-based simulations, and assigned readings. Each SPM unit is designed to ensure that students develop sufficient understanding of the scientific and clinical concepts they need to progress to the next course in the sequence.

The clinical presentations covered in the first two years of the curriculum are then revisited as part of the clinically intensive clerkship years.

Medical Skills—This course incorporates learning objectives related to the knowledge, skills, and behaviors associated with history taking, culturally sensitive communications, conducting and recording a reliable physical assessment, and developing the technical skills necessary for simple diagnostic and therapeutic procedures, such as drawing blood and inserting catheters. History taking and physical examination skills required for particular body systems are addressed in parallel with the systems-based SPM units. Learning takes place primarily in the clinical skills and simulation laboratory in which students will have the chance to practice with standardized patients and high-fidelity human body simulators.

Society, Community, and the Individual (SCI)—The SCI course is taught by an interdisciplinary team of faculty representing the disciplines of family medicine, emergency medicine, and public health. SCI focuses on population health (e.g., epidemiology, informatics, evidence-based medicine). This course provides students hands-on experiences in a local community clinic setting and in the community at large. These community experiences enable students to develop the behaviors and attitudes required to work collaboratively with other health care professionals and community members.

Masters' Colloquium— The Paul L. Foster School of Medicine is divided into learning communities, "Colleges," consisting of 20-25 students and led by "College Masters." The College Masters are responsible for organizing a weekly "Masters' Colloquium" to discuss topics related to the art and

practice of medicine. It is in the Masters Colloquium that students are provided instruction on ethical principles and controversies in medicine. The Masters Colloquium is largely a discussion-based course in which selected readings and workshop activities serve as the bases for discussion and provide opportunities for personal reflection.

ED-1. The medical school faculty must define the objectives of its educational program. The objectives must serve as guides for establishing curriculum content and provide the basis for evaluating the effectiveness of the educational program.

Objectives for the educational program as a whole serve as statements of what students are expected to learn or accomplish during the course of their medical education program.
It is expected that the objectives of the educational program will be formally adopted by the curriculum governance process and the faculty (as a whole or through its recognized representatives). Among those who should also exhibit familiarity with the overall objectives for the education of medical students are the dean and the academic leadership of clinical affiliates who share in the responsibility for delivering the educational program.

ED-1-A. **The objectives of the educational program must be stated in outcome-based terms that allow assessment of student progress in developing the competencies that the profession and the public expect of a physician.**

Educational objectives state what students are expected to learn. Such objectives are statements of the items of knowledge, skills, behaviors, and attitudes that students are expected to exhibit as evidence of their achievement. The educational objectives should relate to the competencies that the profession and the public expect of a physician.
The educational objectives established by the school, along with their associated outcome measures, should reflect whether and how well graduates are developing these competencies as a basis for the next stage of their training.
Student achievement of education program objectives should be documented by specific and measurable outcome-based performance measures of knowledge, skills, attitudes, and values (for example, measures of basic science grounding in the clinical years, USMLE results, performance of graduates in residency training, performance on licensing and certification examinations).
National norms should be used for comparison whenever available.
There are several widely recognized definitions of the knowledge, skills, and attitudinal attributes appropriate for a physician, including those described in the AAMC's Medical School Objectives Project, the general competencies of physicians resulting from the collaborative efforts of the ACGME and ABMS, and the physician roles summarized in the CanMEDS 2000 report of the Royal College of Physicians and Surgeons of Canada.

Institutional learning objectives and goals were developed and refined by a faculty committee after reviewing the following national and international resources: CanMeds Objectives, the AAMC Medical School Objectives Project Reports, and the ACGME Competencies. In addition, the institutional learning goals and objectives of several medical schools around the country were accessed on-line and reviewed, including but not limited to: the University of Arizona College of Medicine, Brown University School of Medicine, Florida State College of Medicine, Indian University School of Medicine, Texas Tech University Health Sciences Center School of Medicine (Lubbock), and the University of Wisconsin School of Medicine and Public Health. The Curriculum and Educational Policy Committee (CEPC) of the Paul L. Foster School of Medicine (PLFSOM) carefully reviewed the institutional goals and objectives and, through an iterative process, reached agreement about the mapping of these goals onto the six ACGME competency domains: medical knowledge, patient care, interpersonal and communication skills, professionalism, practice based learning, and systems based care.

a. Provide a copy of the educational program (institutional learning) objectives.

Please see below in response to part 'b.'

b. Complete the following table showing general competencies expected of graduates, educational program (institutional learning) objectives related to each competency, and any outcome measures(s) that will indicate achievement of each listed objective. Add rows to the table as needed.

Paul L. Foster School of Medicine

Institutional Learning Goals by ACGME Competencies

ACGME Competency	Learning Objective	Outcome Assessment Examples
Medical knowledge		
Students must demonstrate knowledge of established and evolving biomedical, clinical, epidemiological and social-behavioral sciences, as well as the application of this knowledge to patient care.	Describe the normal structure and function of the human body (MK-1)	Tank-side Grand Rounds assessment forms [a] M1 & M2 Weekly formative examinations [b] M1 & M2 End-of-Unit examinations [c] M1 End-of-Year NBME customized examination [d] M1, M2 & M3 OSCEs [e] M3&M4 Clerkship assessment forms[f] USMLE 1 & 2
	Compare and contrast normal variation and pathological states in the structure and function of the human body (MK-2)	Tank-side Grand Rounds assessment forms [a] M1 & M2 Weekly formative examinations [b] M1 & M2 End-of-Unit examinations [c] M1 End-of-Year NBME customized examination [d] M1, M2 & M3 OSCEs [e] M3&M4 Clerkship assessments[f] USMLE 1 & 2

ACGME Competency	Learning Objective	Outcome Assessment Examples
	Describe analytic methods (laboratory, quantitative methods, Evidence-Based medicine principles) and apply them in patient care (MK-3)	M1 & M2 Weekly formative examinations [b] M1 & M2 End-of-Unit examinations [c] M1 End-of-Year NBME customized examination [d] Tank-side Grand Rounds assessment forms [a] SCI quizzes[g] M1, M2 & M3 OSCEs [e] M3&M4 Clerkship assessments[f] USMLE 1 & 2
	Medical Knowledge cont.	
	Apply the scientific method for the acquisition of new knowledge, for the critical appraisal of published knowledge, and to problem solving in the laboratory and patient care (MK-4)	Tank-side Grand Rounds assessment forms [a] M1 & M2 End-of-Unit examinations [b] M1 End-of-Year NBME customized examination [d] M1, M2 & M3 OSCEs [e] M3&M4 Clerkship assessments[f] USMLE 1 & 2 SARP Projects (3 assessments) [h] SCI quizzes[g]
Patient Care		

ACGME Competency	Learning Objective	Outcome Assessment Examples
Care that is compassionate, appropriate, and effective for the treatment of health problems and the promotion of health.	Categorize, describe, and use various therapeutic methods in the treatment of illness and disease (PC-1)	M1 & M2 Weekly formative examinations [b] M1 & M2 End-of-Unit examinations [c] M1 End-of-Year NBME customized examination [d] SCI Core Activity Forms SCI quizzes[g] M1, M2 & M3 OSCEs [e] M3&M4 Clerkship assessment forms[f] USMLE 1 & 2
	Identify life-threatening conditions that require immediate and specific interventions (PC-2)	M1 & M2 Weekly formative examinations [b] M1 & M2 End-of-Unit examinations [c] M1 End-of-Year NBME customized examination [d] M1, M2 & M3 OSCEs [e] M3&M4 Clerkship assessment forms[f] USMLE 1 & 2
	Provide precise, timely and comprehensive patient care that is documented appropriately (PC-3)	M1, M2 & M3 OSCEs [e] M3&M4 Clerkship assessment forms[f] USMLE 1 & 2 Tank-side Grand Rounds assessment forms [a]
	Patient Care Cont.	
	Perform and accurately record findings and observations derived from physical examinations (PC-4)	M1, M2 & M3 OSCEs [e] M3&M4 Clerkship assessment forms[f] USMLE 1 & 2 Tank-side Grand Rounds assessment forms [a] SCI Core Activities forms[i]

ACGME Competency	Learning Objective	Outcome Assessment Examples
	Choose appropriate laboratory tests and/or diagnostic procedures and accurately interpret results (PC-5)	M1 & M2 Weekly formative examinations [b] M1 & M2 End-of-Unit examinations [c] M1 End-of-Year NBME customized examination [d] M1, M2 & M3 OSCEs [e] M3&M4 Clerkship assessment forms[f] USMLE 1 & 2
	Generate a comprehensive list of diagnostic considerations based on the integration of historical, physical and laboratory findings (PC-6)	M1, M2 & M3 OSCEs [e] M3&M4 Clerkship assessment forms[f] USMLE 1 & 2 Tank-side Grand Rounds assessment forms [a]
Interpersonal Communication Skills		
Students must demonstrate interpersonal and communication skills that result in the effective exchange of information and collaboration with patients, their families, and health professionals.	Communicate clearly, respectfully and compassionately with patients, families, colleagues, and members of the health care team (ICS-1)	M3&M4 Clerkship assessment forms[f] Tank-side Grand Rounds assessment forms [a] SCI Preceptor assessment forms[j] Master's Colloquium assessment forms [k] Patient assessments (Medical Skills & M3&M4 Clerkships)[l] M1, M2 & M3 OSCEs [e]
	Collect and record pertinent elements of the clinical history in a concise and accurate manner (ICS-2)	M3&M4 Clerkship assessment forms[f] Tank-side Grand Rounds assessment forms [a] SCI Preceptor assessment forms[j] M1, M2 & M3 OSCEs [e]
	Interpersonal Communication Skills Cont.	

ACGME Competency	Learning Objective	Outcome Assessment Examples
	Communicate knowledge, interpretation and recommendations orally and/or in writing to a wide range of professional or lay audience in culturally appropriate ways (ICS-3)	M3&M4 Clerkship assessment forms[f] Tank-side Grand Rounds assessment forms[a] SCI Preceptor assessment forms[j] Master's Colloquium assessment forms[k] Patient assessment forms (Medical Skills & M3&M4 Clerkships)[l] M1, M2 & M3 OSCEs[e] SARP Project assessment forms[h]
Professionalism		
Students must demonstrate a commitment to carrying out professional responsibilities and an adherence to ethical principles.	Describe fundamental ethical principles and how they apply in patient care and medical practice (Prof-1)	M1 End-of-Year NBME customized examination[d] Unit 3 Formative and Summative Exams[b,c] M1, M2 & M3 OSCEs[e] M3&M4 Clerkship assessment forms[f]
	Professionalism Cont.	

ACGME Competency	Learning Objective	Outcome Assessment Examples
	Recognize and avoid the conflicts of interest that can arise in medical practice (Prof-2)	M3&M4 Clerkship assessment forms[f] Patient assessment forms (Medical Skills & M3&M4 Clerkships)[l]
	Display compassion in interactions with all patients regardless of race, gender, ethnicity, sexual orientation, socioeconomic status and disability (Prof-3)	M3&M4 Clerkship assessment forms[f] Tank-side Grand Rounds assessment forms[a] SCI Preceptor assessment forms[j] Patient assessment forms (Medical Skills & M3&M4 Clerkships)[l]
	Apply the highest ethical standards in all professional activities (Prof-4)	Patient assessment forms (Medical Skills & M3&M4 Clerkships)[l] M3&M4 Clerkship assessment forms[f] Master's Colloquium assessment forms[k]
	Demonstrate respect for the beliefs, opinions and privacy of patients, families, and members of the health care team (Prof-5)	M3&M4 Clerkship assessment forms[f] Tank-side Grand Rounds assessment forms[a] SCI Preceptor assessment forms[j] Patient assessment forms (Medical Skills & M3&M4 Clerkships)[l] Master's Colloquium assessment forms[k] Small Group assessment forms[m]
	Demonstrate scrupulous honesty in all professional matters (Prof-6)	M3&M4 Clerkship assessment forms[f] Tank-side Grand Rounds assessment forms[a] SCI Preceptor assessment forms[j] Master's Colloquium assessment forms
	Provide compassionate and culturally appropriate care in all stages of the life cycle (Prof-7)	M3&M4 Clerkship assessments[f] Tank-side Grand Rounds assessment forms[a] SCI Preceptor assessment forms[j] Patient assessment forms (Medical Skills & M3&M4 Clerkships)[l]
	Preserve patient's dignity in all interactions (Prof-8)	M3&M4 Clerkship assessments[f] Tank-side Grand Rounds assessment[a] SCI Preceptor Assessments[j] Patient assessment forms (Medical Skills & M3&M4 Clerkships)[l]
Professionalism (continued)		

ACGME Competency	Learning Objective	Outcome Assessment Examples
	Demonstrate advocacy for the interests and needs of patients (Prof-9)	M3&M4 Clerkship assessment form[f]
Practice-Based Learning		
Students must demonstrate the ability to investigate and evaluate their care of patients, to appraise and assimilate scientific evidence, and to continuously improve patient care based on constant self-assessment and life-long learning.	Use inductive and deductive reasoning as appropriate in the diagnosis and management of disease (PBL-1)	M1 & M2 Weekly formative examinations[b] M1 & M2 End-of-Unit examinations[c] M1 End-of-Year NBME customized examination[d] M1, M2 & M3 OSCEs[e] M3&M4 Clerkship assessment forms[f] USMLE 1 & 2
	Use epidemiological and bio-statistical methods to analyze and solve clinical problems (PBL-2)	M1 & M2 Weekly formative examinations[b] M1 & M2 End-of-Unit examinations[c] M1 End-of-Year NBME customized examination[d] SCI Core Activities form[i] SCI quizzes[g]
	Identify the need to employ self-initiated learning strategies (problem definition, resource identification, critical appraisal) when approaching new challenges, problems, or unfamiliar situations (PBL-3)	Tank-side Grand Rounds assessment form[a] M3&M4 Clerkship assessment forms[f] SARP Assessment forms[h] Master's Colloquium Assessment forms[k] SCI Core Activity Form[i]
	Recognize when to take responsibility and when to seek assistance based on one's position, training and experience (PBL-4)	Small Group assessment forms[m] M3&M4 Clerkship assessment forms[f]
	Demonstrate sophistication in the use of digital resources for patient care, self-education, and the education of patients and their families (PBL-5)	Tank-side Grand Rounds assessment form[a] SARP Assessment forms[h] Masters' colloquium assessment form[k]
	Practice-Based Learning Cont.	

ACGME Competency	Learning Objective	Outcome Assessment Examples
	Demonstrate the application of a scheme inductive approach to arrive at a focused differential diagnosis (PBL-6)	M1 & M2 Weekly formative examinations [b] M1 & M2 End-of-Unit examinations [c] M1, M2 & M3 OSCEs [e] M3&M4 Clerkship assessment forms [f]
	Demonstrate self-awareness and the skills necessary for life-long learning (PBL-7)	Tank-side Grand Rounds assessment form [a] Masters' colloquium assessment form [k] SARP projects assessment form [h] M3&M4 Clerkship assessment forms [f]
Systems-based Practice		
Practice, as manifested by actions that demonstrate an awareness of and responsiveness to the larger context and system of health care and the ability to effectively call on system resources to provide care that is of optimal value	Describe the components of social structure (e.g., family, neighborhood, community) and the role each plays in health behavior, disease prevention, and the treatment of illness (SBP-1)	SCI Core Activity Form [i] SCI quizzes [g] Master's colloquium assessment form [k] SARP project assessment forms [h]
	Describe the components of the national health system and its funding and how this system affects individual and community health (SBP-2)	SCI Core Activity Form [i] SCI quizzes [g] Master's colloquium assessment form [k] SARP project Assessment forms [h]

[a] Tank-side Rounds Assessment form assesses knowledge, investigatory & analytic thinking, attitudes, and communication skills. The associated Donor Electronic Medical Record assessment includes documentation,, scheme usage, and analytic thinking. Both are intended to assess self-assessment and life-long learning skills.

[b] Weekly formative examinations are used primarily to assess knowledge and skills acquired in the Scientific Principles of Medicine course.

[c] End-of-unit summative examinations are used primarily to assess knowledge acquired in each SPM unit and the corresponding skills learned in the Medical Skills course. Methods of examination include written exams, computer-based exercises, and demonstrations of skills using appropriate clinical simulator devices. In addition, students at PLFSOM participate in "progress testing" and complete two examinations on an annual bases beginning at matriculation. These are the Diagnostic Pattern Recognition Examination (70 items) and the Clinical Data Interpretation Examination (80 items). This examination was developed at Southern Illinois University School of Medicine and is being used by a consortium of medical schools from around the United States.

[d] M1 students take an NBME customized examination to assess their acquired knowledge. The test items are selected to cover the organ system units covered in SPM to date and to cover epidemiology and ethics principles covered in SCI and Master's colloquium.

[e] OSCEs are used at the end of each organ system unit. M2 and M3 students also take an end of year OSCE to assess general clinical and communication skills. Students will be required to remediate areas of demonstrated deficiency prior to completing USMLE STEP 2 (CS).

[f] Clerkship assessment forms assess knowledge, application, medical care, attitudes, and communication skills.

[g] SCI quizzes cover topics in biostatistics, epidemiology, health disparities, border health issues, occupational and environmental health and community health.

[h] SARP is a required mentored research experience. Students are assessed on the scientific merit of the project, analytic skills, communication skills, and integrity. Assessment occurs three times: the proposal stage, a written report, and at a poster presentation.

[i] Community-based sessions in Society, Community, and the Individual require the student to document specific skills for each session, to discuss the systemic issues related to providing health care for a specific condition, and to self-identify areas for improvement. These are reviewed and commented on by the course director, primarily for formative purposes.

[j] Preceptors observe students during the community-based sessions in Society, Community, and the Individual. Assessments include professionalism, respectful communication, clinical skills, and the ability to communicate case information.

[k] Masters' Colloquium is primarily an oral discussion format. Assessment is based on critical appraisal papers. Assessment categories cover self-directed learning skills, appraisal of the literature, and analytic skills.

[l] Patients assess the student as part of both Medical Skills and Clerkship experiences.

[m] Small Group assessment forms are used in SPM and SCI. These forms assess student's ability to apply concepts, respectful communication, and ability to admit lack of knowledge.

c. Briefly describe how the educational program objectives are being used in curriculum planning, and in the initial selection and ongoing review of the content included in the curriculum.

The program objectives are integrated into the curriculum planning process. Course specific objectives are based on the 31 general institutional objectives outlined above. Because of the integrated nature of the curriculum, many activities and assessments are associated with more than one learning objective. The original content selection process started in January, 2007, when the El Paso faculty began defining specific learning objectives for the new curriculum, ensuring that the course specific objectives were tied directly to the institutional learning objectives. The initial curriculum was reviewed and approved by the Curriculum and Educational Policy Committee.

Ongoing review is multi-faceted. The faculty members responsible for the required course and clerkships meet frequently (weekly in the case of the Scientific Principles of Medicine course) to discuss course development and delivery, including how the content is meeting the course and institutional objectives. Course and clerkship directors are required to monitor the development of their respective programs to ensure that specific learning goals and objectives are consistent with, and contribute to, the accomplishment of the institutional learning objectives. Curriculum planning is an iterative process conducted by the faculty. Finally, substantive changes to the learning objectives, educational methods, and student assessment strategy for each course are reviewed for approval by the Curriculum and Educational Policy Committee. A major component of that course and clerkship approval process is certification that the course or clerkship is contributing to the ultimate accomplishment of the institutional learning objectives.

d. Briefly describe how the educational program objectives are being and will be used in the assessment of the effectiveness of segments of the curriculum (for example, the preclinical curriculum) and the educational program as a whole.

The Curriculum and Educational Policy Committee (CEPC) reviews each course and clerkship on an annual basis and must approve all major changes to a course or clerkship. The CEPC considers the impact of any changes on the institutional objectives. Beyond annual review of courses and clerkships, this committee will conduct an overall review of the curriculum on a 3-year cycle. This review also offers opportunities to evaluate segments of the curriculum and the overall curriculum in light of the institutional objectives. For the annual and 3-year reviews of curriculum, the CEPC will rely on evaluative data accumulated by the Office of Curriculum, Evaluation, and Accreditation.

The annual assessments are performed using a combination of a benchmarking and quality improvement monitoring. Our chosen benchmarks for the program include proportion of students passing each unit, course, and the NBME Customized End of Year Exam (CEYE); remediation rates; and USMLE pass rates and relative scores. If appropriate, this assessment includes determination if any specific scientific area or educational objective area is not achieving the desired benchmark. For example, we analyze the CEYE content areas to determine if any content area has a percentage pass rate significantly lower than the others.

The quality improvement monitoring component evaluates the extent to which the institution and faculty are engaged in continuous quality improvement, i.e., identifying areas where the objectives are not being met or are not as explicitly tied to the objectives as desired, implementing changes, and identifying

measures to decide if the changes improve the program. This component considers both informal and formal quality improvement.

At the 3 year review, the focus is more comprehensive and uses a strengths, weaknesses, opportunities and threat (SWOT) type analysis. In addition to looking at benchmarks and quality improvement efforts, we evaluate if our program is meeting changing standards for medical education, if our faculty are receiving sufficient training in any areas of programmatic weakness, and adequacy of resources.

It is worth noting that changes in assessment resulting from the quality improvement are increasing our capacity to evaluate both segments of the curriculum and the entire program. Faculty members are cognizant of both the ACGME competencies and the educational objectives. As a result, many of the changes faculty wish to implement on the basis of the 2009-2010 results will increase our ability to evaluate the competencies in a more holistic manner. For example, the Scholarly Activity and Research Program project now includes more specific measures of written communication skills and professional integrity. The anatomy faculty have adopted practical anatomy assessments in the form of "tank-side rounds" that will include a summative assessment not only of medical knowledge, but also logic and analytic thinking, communication skills, respectful behavior, and team work.

See also information for standards ED-33 and ED-46 in this section of the database.

ED-2. **There must be a system with central oversight to assure that the faculty defines the types of patients and clinical conditions that students must encounter, the appropriate clinical setting of the educational experiences, and the expected level of student responsibility. The faculty must monitor student experience and modify it as necessary to ensure that the objectives of the clinical education program will be met.**

This standard requires that a system be established to specify the types of patients or clinical conditions that students must encounter and to monitor and verify the students' experiences with patients so as to remedy any identified gaps. The system, whether managed at the individual clerkship level or centrally, must ensure that all students have the required experiences. For example, if a student does not encounter patients with a particular condition (e.g., because it is seasonal), the student should be able to remedy the gap by a simulated experience (such as standardized patient experiences, on-line or paper cases, etc.), or in another clerkship.

When clerkships in a given discipline are provided at multiple teaching sites, schools that cannot demonstrate compliance with this standard (ED-2) may also be unable to comply with accreditation standard ED-8, which requires that programs demonstrate comparability of educational experiences across instructional sites.

a. Describe the status of planning to identify the kinds of patients or clinical conditions, and the clinical settings, needed to meet the school's objectives for clinical education. Briefly summarize the role of the curriculum committee or other central oversight body (such as a clerkship planning committee) in establishing these criteria.

In January 2010, the dean appointed a task force consisting of over 50 faculty members with responsibilities spanning the four year medical school curriculum and gave them the charge of developing the year 3-4 curriculum. This task force, coordinated by the senior associate dean for medical education , was subsequently organized into the following working (design) groups corresponding to the anticipated structure of the year 3-4 curriculum:

- Internal Medicine/Psychiatry Block
- Obstetrics/Pediatrics Block
- Surgery/Family Medicine Block
- Critical Care Selective
- Emergency Medicine (departmental design group)
- Neurology (departmental design group)
- Sub-internship Selective in Internal Medicine, of Surgery or Pediatrics (departmental design team)
- Year 4 Capstone Experience

Each of these working groups includes faculty representatives from the associated clinical disciplines, including clerkship directors, and basic science faculty members who are familiar with the content and methods of the first two years of the curriculum. The immediate tasks assigned to each of these groups is to 1) develop the goals, objectives, and learning outcomes expected for each discipline within a block; 2) identify the clinical conditions, level of student responsibility and setting of patient contact; 3) identify the clinical presentations covered during the first and second year as part of the Scientific Principles of Medicine (SPM) course that will be reviewed during the clerkship block; 4) identify opportunities for shared teaching and learning experiences between the disciplines sharing a block; and 4) identify the educational methods that will be used to accomplish the goals and objectives of the clerkship and block.

Methods for assessing student performance in the clerkship phase of the four year curriculum are being developed and are described in more detail in the clerkship descriptions portion of the database.

The Curriculum and Educational Policy Committee (CEPC) reviewed the original plan for the year 3-4 curriculum that is diagramed in ED-5 and recommended that it be approved by the Faculty Council. The Faculty Council subsequently approved the general plan for the year 3-4 curriculum that is now being further developed by the working groups described above. Each of the clerkships will be required to submit a detailed description and syllabus to the CEPC for its review and approval.

In the table below, the following definitions apply to the column dealing with student level of responsibility:

Observe-The student observes others interacting with, and/or examining the patient, or performing a procedure, but the student does not participate directly in the process. This is a passive experience from the standpoint of the interaction of the learner and patient.

Assist-The student participates with a supervising physician (resident or attending) in interviewing, and/or examining a patient, or performing a procedure. The student may perform a portion of the history or physical or participate in a procedure in a secondary role. The student does not play an active role in diagnosis or treatment decision-making.

Manage/Perform-The student performs the history or physical exam AND formulates the differential diagnosis AND suggests the appropriate course of treatment under supervision of the preceptor, resident, or attending. For procedures, the student plays a primary role in performing the indicated procedure under supervision of the preceptor, resident, or attending.

In addition to listing the clinical conditions, level of student responsibility, and setting of care, the table below also lists the "clinical presentations" (CPs) covered in the pre-clerkship curriculum that will be "revisited" as part of the clinical training in years 3 and 4.

Clerkship	Diagnostic Category and Clinical Presentation (CP) Review	Diagnosis/Procedure	Level of Student Responsibility	Clinical Setting
Family Medicine	Cardiovascular CPs: • Chest discomfort • Abnormal blood pressure	Chest Pain Hypercholesterolemia Hypertension	Manage (all)	Outpatient
	Respiratory CPs: • Cough • Wheezing • Sore throat	Allergic Rhinitis Asthma COPD Sore throat Upper respiratory infection	Manage (all)	Outpatient
	Health Maintenance CPs: • Work physical • Periodic health exam adult • Menopause	Periodic physical – male Periodic physical -- female Stop smoking discussion	Manage (all)	Outpatient
	Abdomen CPs: • Vomiting/Nausea • Diarrhea • Abdominal distention • Abdominal pain	Abdominal Pain Urinary tract infection Dysuria	Manage (all)	Outpatient
	Endocrine CPs: • Diabetes/Hyperlipidemia • Weight gain, obesity	Diabetes	Manage (all)	Outpatient
	Psychiatric CPs: • Mood disorders • Panic and anxiety	Depression Anxiety	Manage (all)	Outpatient

	General CPs: • Headache • Dying patient, bereavement	Headache End of Life/Hospice Evidence Based Medicine	Manage (all)	Outpatient
	Musculoskeletal CPs: • Bone fractures • Limp and deformity • Joint pain	Knee injury Low back pain	Manage/perform (all)	Outpatient

Clerkship	Diagnostic Category and Clinical Presentation Review	Diagnosis/Procedure	Level of Student Responsibility	Clinical Setting
Internal Medicine	Cardiovascular CPs: • Chest discomfort • Abnormal heart sounds • Heart murmurs • Syncope (see also neurological category) • Palpitations • Abnormal blood pressure	Chest Pain (including CAD/MI) CHF Arrhythmia Hypertension Shock Thrombophlebitis/DVT	Manage (all)	Inpatient
	Respiratory CPs: • Dyspnea • Pleural abnormalities • Cough • Wheezing • Cyanosis • Hemoptysis	COPD (including acute exacerbation) Asthma Pneumonia Pulmonary embolus	Manage (all)	Inpatient
	Renal/Genitourinary Disease CPs: • Abnormalities of renal function • Disorders of serum Na+ • Intrinsic renal disease • Abnormalities of hydrogen ion concentration • Hypertension • Renal failure: Acute • Renal failure: Chronic • Male genitourinary disorders	RENAL ARF CRF Transplant Stone	Manage (all)	Inpatient

Clerkship	Diagnostic Category and Clinical Presentation Review	Diagnosis/Procedure	Level of Student Responsibility	Clinical Setting
Internal Medicine Cont	Infectious Diseases CPs: • Abnormal temperature/Fever	AIDS Sepsis UTI/Urosepsis Cellulitis	Manage (all)	Inpatient
	Gastrointestinal CPs: • Vomiting/Nausea • Diarrhea • Abdominal distention • Abdominal pain • Constipation • GI bleed • Liver function test abnormalities, Jaundice	G.I. Bleed (upper or lower) Diarrhea (any cause) Liver disease Pancreatitis Ascites	Manage (all)	Inpatient
	Endocrine CPs: • Diabetes, Hyperlipidemia • Hypothalamus/Pituitary axis • Disorders of thyroid function • Weight gain, obesity	Diabetes DKA Thyroid disease Adrenal disease	Manage (all)	Inpatient
	Rheumatology CPs: • Joint pain • Numbness and pain	Arthritis Vasculitis Lupus/SLE	Manage (all)	Inpatient

Clerkship	Diagnostic Category and Clinical Presentation Review	Diagnosis/Procedure	Level of Student Responsibility	Clinical Setting
Internal Medicine Cont	Hematology/Oncology CPs: • Abnormal hemoglobin • Abnormal white cells • Lympadenopa • Coagulation abdnormalities	Anemia Thrombocytopenia Coagulopathy	Manage (all)	Inpatient
.	Neurology CPs: • Syncope (see also cardiovascular category) • Seizures and epilepsy • Stroke and aphasia • Delirium, stupor, and coma	Stroke/CVA Syncope/Dizziness Epilepsy Drug overdose	Manage (all)	Inpatient
	General areas CPs: • Substance abuse, withdrawal • Mood disorders • Panic and anxiety • Numbness and pain • Skin rashes • Skin ulcers (benign and malignant) • Itching • Hair and nail disorders (alopecia)	Drug problem Dermatological problem Psychiatric problem Alcohol problem Pain Testing/Diagnostic evaluation	Manage (all)	Inpatient

Clerkship	Diagnostic Category and Clinical Presentation Review	Diagnosis/Procedure	Level of Student Responsibility	Clinical Setting
Internal Medicine Cont	Selected Key Procedures	Venipuncture Blood culture Arterial blood gas Electrocardiogram Nasogastric intubation Urethral catheterization Digital rectal examination Peripheral intravenous catheter insertion	Perform or Assist (all)	Inpatient

Clerkship	Diagnostic Category and Clinical Presentation Review	Diagnosis/Procedure	Level of Student Responsibility	Clinical Setting
Obstetrics and Gynecology	Prenatal Care CPs: • Contraception • Screening and prevention • Normal pregnancy • Diabetes and Hyperlipidemia	New OB visit Routine OB visit Diabetes Management Non stress test/Fetal Monitoring	Assist Manage Assist Observe	Clinic
	OB Triage CPs: • Vaginal discharge • Abnormal genital track bleeding • Pregnancy loss	Evaluation/treatment vaginal discharge (wet prep) Evaluation of ruptured membranes (fern test) Assessment of Labor Evaluation/treatment 2nd and 3rd trimester bleeding Evaluation/treatment UTI and Pyleonephritis OB ultrasound	Assist Observe Assist Assist Observe	Labor & Delivery
	Labor and Delivery CPs: • Pregnancy complications	Evaluation/treatment vaginal discharge (wet prep) Evaluation of ruptured membranes (fern test) Assessment of Labor Evaluation/treatment 2nd and 3rd trimester bleeding Evaluation/treatment UTI and Pyleonephritis OB ultrasound	Manage Assist Observe Observe Assist Assist Observe	Labor & Delivery

Clerkship	Diagnostic Category and Clinical Presentation Review	Diagnosis/Procedure	Level of Student Responsibility	Clinical Setting
Obstetrics and Gynecology Cont.	GYN Clinic CPs: • Periodic Health exam-Adult • Screening and prevention • Contraception • Abnormal genital track bleeding • Pelvic pain • Pelvic mass • Pregnancy loss • Menopause • Prolapse/Pelvic floor relaxation • Pregnancy complications	Annual Exam (minimum of two exams in any age group) 18-25 years old 25-40 years old 40+ years old Evaluation/treatment of abnormal uterine bleeding Evaluation/treatment of sexually transmitted diseases Evaluation/treatment of abnormal pap smears Evaluation/treatment of spontaneous abortions Evaluation/treatment of Ectopic pregnancies Contraception counseling	Manage Assist (all remaining conditions)	Clinic
	GYN Outpatient Procedures	Colposcopy Laser/Leep/Cryosurgery Endometrial biopsy Transvaginal sonography (+/-)	Observe (all)	Clinic
	GYN Inpatient Procedures	Post-op care D&C Cold knife cone Tubal ligation (Laparoscopy and Laparotomy) Hysterectomy (Abdominal, Vaginal, and Laparoscopic Assisted Vaginal) Ectopic Pregnancy (Laparoscopy or Laparotomy) Adnexal surgery Pelvic floor surgery	Assist Assist Observe Assist Assist Assist Assist Assist	Inpatient

Clerkship	Diagnostic Category and Clinical Presentation Review	Diagnosis/Procedure	Level of Student Responsibility	Clinical Setting
Obstetrics and Gynecology Cont.	GYN Oncology	Evaluation/treatment cervical cancer Evaluation/treatment uterine cancer Evaluation/treatment ovarian cancer	Assist (all)	Clinic

Clerkship	Diagnostic Category and Clinical Presentation Review	Diagnosis/Procedure	Level of Student Responsibility	Clinical Setting
Pediatrics	Newborn CPs: • Prematurity • New born depressed, examination of new born • Acutely ill child	Well Baby Cyanosis Feeding Problems Jaundice Jitteriness Lethargy Prematurity Respiratory Distress Seizures Sepsis Vomiting Asphyxia Congenital Anomalies Congenital Heart Disease Drug Withdrawal Hypoglycemia Hypocalcaemia Infection (bacterial or viral) Maternal Diabetes Meconium Aspiration Physiologic Jaundice Respiratory Distress Syndrome	Manage or Assist (all)	Nursery
Pediatrics Cont	Accidents CPs: • Bone fractures	Animal Bites Child Abuse Burns Ingestions Trauma	Assist/Manage (all)	Inpatient

Clerkship	Diagnostic Category and Clinical Presentation Review	Diagnosis/Procedure	Level of Student Responsibility	Clinical Setting
Pediatrics Cont	Cardiovascular CPs: • Heart murmur • Cyanosis • Abnormal blood pressure: hypertension	Congestive Heart Failure Cyanosis Heart Murmur Hypertension Cardiomyopathy Congenital Heart Disease (Cyanotic & Acyanotic) Endocarditis	Assist/Manage (all)	Inpatient
	Musculoskeletal CPs: • Bone fractures • Limp and deformity	Arthritis/Arthralgia Pain Trauma Weakness Fractures/Sprains Osteomyelitis Pyogenic Arthritis Tumors	Assist/Manage (all)	Inpatient
	Neurological CPs: • Developmental disorders • Seizures and Epilepsy	Developmental Delay/Regression Headaches Seizures Trauma CP MR Epilepsy Muscular Dystrophy	Observe (all)	Outpatient
	Nutrition CPs: • Failure to thrive/malnourished	Failure to Thrive Malnutrition Obesity Anorexia Bulimia	Observe/Assist (all)	Inpatient/ Outpatient

Clerkship	Diagnostic Category and Clinical Presentation Review	Diagnosis/Procedure	Level of Student Responsibility	Clinical Setting
Pediatrics Cont	Ophthalmological CPs: • Eye redness	Diplopia Drainage/Discharge "Pink Eye" Poor Vision White Pupillary Reflex Cataracts Conjunctivitis Hyperopia/Myopia	Observe (all)	Outpatient
	Respiratory, Lower CPs: • Cough • Wheezing	Cough Respiratory Distress Wheezing Asthma Bronchiolitis Croup Foreign Body Pneumonia	Assist/Manage (all)	Outpatient
	Respiratory, Upper CPs: • Sore throat • Hearing loss, deafness, tinnitus, dizziness-vertigo, ear pain (combined CP)	Ear Pain Impaired Hearing Rhinorrhea Sore Throat Deafness Foreign Body Otitis Pharyngitis Rhinitis Sinusitis	Assist/Manage (all)	Inpatient/ Outpatient

Clerkship	Diagnostic Category and Clinical Presentation Review	Diagnosis/Procedure	Level of Student Responsibility	Clinical Setting
Pediatrics Cont	Endocrine CPs: • Diabetes/Obesity • Hypothalamus/Pituitary axis • Abnormal stature • Disorders of thyroid function	Ambiguous Genitalia Polyuria/Polydipsia Short Stature/Delayed Growth Adrenal Disorders Diabetes Mellitus Hyopituitarism Thyroid Disorders	Observe (all)	Outpatient
	Dermatology CPs: • Skin rashes • Skin tumors (benign and malignant) • Itching (Puritis)	Rashes Atopic Dermatitis Exanthems Nevi	Assist/Manage (all)	Inpatient/ Outpatient
	Gastrointestinal CPs: • Abdominal pain • Vomiting/nausea • Diarrhea • Constipation • Abdominal distention	Abdominal Pain Abdominal Mass Bleeding Constipation Colic Diarrhea Hepatomegaly Vomiting Appendicitis Gastroenteritis Gastroesophageal Reflux Inflammatory Bowel Disease Pyloric Stenosis	Assist/Manage (all)	Inpatient/Outpatient

Clerkship	Diagnostic Category and Clinical Presentation Review	Diagnosis/Procedure	Level of Student Responsibility	Clinical Setting
Pediatrics Cont	Genitourinary CPs: • Sexual maturation • Vaginal discharge • Abnormal menstrual cycle	Dysuria Hematuria Vaginal Discharge – Swollen testes Dysmenorrhea Urinary Tract Infection AGN Nephrotic Syndrome Testicular torsion	Assist/Manage (all)	Inpatient/Outpatient
	Hematology/Oncology CPs: • Abnormal hemoglobin • Abnormal white blood cells • Coagulation abnormalities	Anemia Thrombocytopenia Coagulopathy Neutropenia ITP – Leukemia Tumors Hemophilia	Observe/Assist (all)	Inpatient/Outpatient
	Infectious Disease CPs: • Abnormal temperature	AIDS Sepsis Cellulitis Pertussis Scarlet Fever Roseola Erythema Infectiosun	Assist/Manage (all)	Inpatient
	Health Maintenance CPs: • Periodic Health exam-Child • Sleep/Circadian rhythm disorders	2-4-6 months 12 months Toddler / School Age Adolescent	Manage (all)	Outpatient
	Chromosomal Disorders/Inborn Errors	Trisomy 21 Turner Klinefelter	Observe (all)	Outpatient

Clerkship	Diagnostic Category and Clinical Presentation Review	Diagnosis/Procedure	Level of Student Responsibility	Clinical Setting
Pediatrics Cont	Others/Rheumatology Behavioral Disorders CPs: • Behavioral disorders • ADD/ADHD	JRA LE ADD RF Kawasaki Depression ADD	Observe (all)	Outpatient

Clerkship	Diagnostic Category and Clinical Presentation Review	Diagnosis/Procedure	Level of Student Responsibility	Clinical Setting
Psychiatry	Depressive Disorders CPs: • Mood disorders	Mood Disorders (single or recurrent): Mild; Moderate; Severe w or w/o psychosis Dysthymic Disorder Depressive NOS 2° to General Medical Condition or Substance Abuse Induced Disorder	Observe/Assist/or Manage (all)	Outpatient/Inpatient /Day Hospital
	Mania, Hypomania CPs: • Mood disorders	Bipolar I Bipolar II Bipolar NOS 2° to General Medical Condition or Substance Abuse Induced Disorder	Observe/Assist/or Manage (all)	Outpatient/Inpatient /Day Hospital
	Psychotic Disorders CPs: • Psychotic patient/disordered	SCZ, SCZ-affective (depressed or bipolar type) 2° to General Medical Condition or Substance Abuse Induced Disorder Psychosis NOS Schizophreniform disorder, Brief psychotic disorder, Delusional disorder, etc	Observe/Assist/or Manage (all)	Outpatient/Inpatient /Day Hospital
	Anxiety Disorders CPs: • Panic and anxiety	Panic Disorder Agoraphobia Phobia (soc/spec) Obsessive compulsive disorder, Generalized anxiety disorder, Acute stress disorder Anxiety Disorder NOS	Observe/Assist/or Manage (all)	Outpatient/Inpatient /Day Hospital
	Substance Dependence, Abuse or Withdrawal CPs: • Substance abuse withdrawal		Observe/Assist/or Manage (all)	Outpatient/Inpatient /Day Hospital

Clerkship	Diagnostic Category and Clinical Presentation Review	Diagnosis/Procedure	Level of Student Responsibility	Clinical Setting
Psychiatry cont.	Adjustment Disorder CPs: • Behavioral disorders • ADD/ADHD • Mood disorders • Anxiety disorders	Depression Anxiety Conduct problem Combination	Observe/Assist/or Manage (all)	Outpatient/Inpatient /Day Hospital
	Cognitive Disorders CPs: • Dementia		Observe/Assist/or Manage (all)	Outpatient/Inpatient /Day Hospital
	Risk Assessment Danger to self or others	Suicidal ideation Homicidal ideation Risk for harm	Observe/Assist/or Manage (all)	Outpatient/Inpatient /Day Hospital
	Personality Disorders		Observe/Assist/or Manage (all)	Outpatient/Inpatient /Day Hospital

Clerkship	Diagnostic Category and Clinical Presentation Review	Diagnosis/Procedure	Level of Student Responsibility	Clinical Setting
Surgery	Alimentary Tract CPs: • Vomiting/nausea • Diarrhea • Constipation • Abdominal distension • Abdominal pain • GI bleed	Gastroesophageal reflux Esophageal cancer Peptic/Duodenal ulcer Bariatric Surgery Gastric cancer Small bowel obstruction Large bowel obstruction Appendicitis Colon cancer Inflammatory bowel disease Diverticulitis GI Bleeding: Upper/lower Hemorrhoids	Manage (H and P)/ assist or observe surgical procedure (all)	Outpatient/Inpatient
	Hepatobiliary/Pancreas CPs: • Liver function test abnormalities	Cholecystitis Pancreatitis Hepatitis Pancreatic pseudocyst Pancreatic cancer Liver mass/cancer	Manage (H and P)/ assist or observe surgical procedure (all)	Outpatient/Inpatient
	Breast	Fibrocystic changes Breast Cyst Fibroadenoma Breast abscess Breast cancer	Manage (H and P)/ assist or observe surgical procedure (all)	Outpatient/Inpatient

Clerkship	Diagnostic Category and Clinical Presentation Review	Diagnosis/Procedure	Level of Student Responsibility	Clinical Setting
Surgery Cont.	Vascular/Thoracic/Cardiac CPs: Chest discomfort • Dyspnea • Hemoptysis	Carotid artery stenosis Abdominal aortic aneurysm Claudication Acute arterial ischemia – extremity Chronic limb ischemia: ulcer/restpain/gangrene Deep venous thrombosis Lung nodule Lung cancer COPD Pneumothorax Coronary artery disease	Manage (H and P)/ assist or observe surgical procedure (all)	Outpatient/Inpatient
	Trauma/Critical Care CPs: • Abnormal blood pressure: Shock • Renal Failure: Acute	Blunt trauma: head/neck/chest/abdomen/pelvs Penetrating trauma: head/neck/chest/abdomen/pelvs Burn injury Respiratory failure/ARDS Acute renal failure Multiple system organ failure	Manage (H and P)/ assist or observe surgical procedure (all)	Outpatient/Inpatient

Clerkship	Diagnostic Category and Clinical Presentation Review	Diagnosis/Procedure	Level of Student Responsibility	Clinical Setting
Surgery Cont.	General/Miscellaneous	Inguinal hernia Abdominal wall/incisional hernia Abscess Melanoma/Skin cancers Surgical wound infection (two) Management/removal of drains and tubes (two) Nasogastic tube or feeding tube insertion (two) Foley catheter insertion (two male, two female) Venipuncture/IV start (two) Suturing (two) Suture or staple removal (two) Rectal exam (two	Manage (H and P)/ assist or observe surgical procedure (all)	Outpatient/Inpatient
	Endocrine CPs: • Hypothalamus/Pituitary axis • Disorders of thyroid function	Thyroid nodule Hyperthyroidism Thyroid cancer Hyperparathyroidism Adrenal mass	Manage (H and P)/ assist or observe surgical procedure (all)	Outpatient/Inpatient
	Subspecialty	Anesthesia ENT Neurosurgery Plastic surgery Orthopaedics Urology	Manage (H and P)/ assist or observe surgical procedure (all)	Outpatient/Inpatient

Clerkship	Diagnostic Category and Clinical Presentation Review	Diagnosis/Procedure	Level of Student Responsibility	Clinical Setting
Neurology	Stroke CPs: • Stroke and aphasia	Ischemic, major cerebral vessel Lacunar Hemorrhagic	Manage Manage Assist	Inpatient (all)
	Seizures and Epilepsy CPs: • Syncope • Epilepsy	Syncope New onset seizures Epilepsy (controlled and refractory) Psychogenic seizures (pseudoseizures)	Manage Manage Manage Assist	In/outpatient Inpatient In/outpatient
	Motor and Sensory Systems CPs: • Numbness and pain • Weakness • Movement disorders • Gait disturbance	Radiculopathy Mononeuropathy Polyneuropthy Myasthenia gravis Post-herpetic neuralgia Trigeminal neuralgia Spinal cord injury or disease Parkinson's disease Essential tremor Huntington's Disease Cerebellar ataxia Geriatric gait instability	Manage Manage Assist Assist Manage Manage Assist Manage Assist Assist Assist Manage	In/outpatient In/outpatient In/outpatient In/outpatient In/outpatient In/outpatient In/outpatient Outpatient Outpatient Outpatient In/outpatient In/outpatient

Clerkship	Diagnostic Category and Clinical Presentation Review	Diagnosis/Procedure	Level of Student Responsibility	Clinical Setting
	Headache CPs: • Headache	Migraine Tension headache Temporal arteritis Pseudotumor cerebri	Manage Manage Assist Assist	Outpatient Outpatient In/outpatient In/outpatient

Clerkship	Diagnostic Category and Clinical Presentation Review	Diagnosis/Procedure	Level of Student Responsibility	Clinical Setting
Emergency Medicine	Cardio-pulmonary CPs: • Chest discomfort • Abnormal arterial pulse • Abnormal blood pressure: Hypertension • Abnormal blood pressure: Shock • Dyspnea	MI/CAD Aortic dissection Pneumothorax Pneumonia Pulmonary embolism Esophageal rupture Pericarditis Pericardial effusion COPD CHF Asthma Shock (distributive, hypovolemic, cardiogenic)	Manage Manage Manage Manage Manage Manage Manage Manage Manage Manage Manage Assist	Emergency Department
	Gastro-intestinal CPs: • Abdominal pain • GI Bleeding	Cholelithiasis Nephrolithiasis Appedicitis Peptic ulcer disease Pancreatitis Gastritis Diverticulitis UTI Bowel obstruction Pyelonephritis Pelvic inflammatory disease AAA Testicular Torsion	Manage (all categories)	Emergency Department

Clerkship	Diagnostic Category and Clinical Presentation Review	Diagnosis/Procedure	Level of Student Responsibility	Clinical Setting
Emergency Med. Cont.	Neurological CPs: • Delirium, stupor, coma • Dementia • Seizure and epilepsy	Abnormal blood sugar CVA Infection Overdose Dementia Seizure	Manage (all categories)	Emergency Department
	Trauma CPs: • Bone Fractures	Long bone fractures Hand fractures	Manage (all categories)	Emergency Department
	Other common emergency presentations CPs: • Vaginal bleeding • Pregnancy loss • Dyspnea • Cough • Fever	Ectopic pregnancy Spontaneous Abortion Fever in children Encephalitis Bronchiolitis Croup Pneumonia Meningitis Cellulitis Otis media	Manage (all categories)	Emergency Department

b. Describe the system(s) that will be used to monitor student clinical experiences. How will information on student clinical experiences be collected, and when and by whom will it be monitored?

Texas Tech University Health Sciences Center Medical School (Lubbock) has developed an On-line Patient Log Book (OPLOG) for students to record their patient encounters, setting, and level of involvement. The Paul L. Foster School of Medicine adopted this application with some modifications. Students will have password protected access to the OPLOG through their individual e-portfolios. Students are required to record the following on each of their patients:

- Age
- Gender
- Setting (Clinic/Private Office, Hospital, Home Visit, Nursing Home/ Rehab)
- Up to 3 diagnoses or problems addressed at the time of the encounter
- Procedures (if any)
- Level of student involvement with care (observed, assisted, performed—all operationally defined)

Clerkship directors will be responsible for reviewing the OPLOG entries to assure that students are being exposed to required clinical conditions at a level that is appropriate for meeting the learning objectives of the clerkship. These reviews will take place at the mid-point and end of the rotation. Clerkship directors will be responsible for certifying that students have met all of the clinical requirements of the rotation. The clerkship directors will also be responsible for developing alternative experiences for required rare or seasonal conditions that a student may not have encountered during the course of the clerkship.

See also the Required Clerkship Forms.

ED-3. The objectives of the educational program must be made known to all medical students and to the faculty, residents, and others with direct responsibilities for medical student education.

Describe the means by which the general objectives of the educational program (institutional learning objectives) are made known to:

a. medical students;

The institutional learning objectives are distributed to student at orientation. They are also available on-line and, beginning in 2010, are included in the annual student catalogue.

The educational program objectives relevant to an individual course are identified in that course's syllabus. These syllabi are available to all students via WebCT. Course directors are also required to provide an "administrative" orientation to their respective courses during which they highlight course goals and objectives as they relate to meeting the institutional learning objectives described in section ED 1, and 1-A.

b. instructional staff, including full-time and volunteer (community) faculty, graduate students, and resident physicians with responsibility for teaching/supervising medical students;

The institutional learning goals and objectives are available on-line and are provided to faculty, residents, and community physicians in a tri-fold pamphlet.

The educational program objectives relevant to an individual course or clerkship are identified in that course's syllabus. These syllabi are available to faculty in a course via WebCT. Course and clerkship level learning objectives are mapped to the institutional learning objectives and the syllabus indicates the relationship between course/clerkship objectives and those of the institution.

In the Society, Community and Individual (SCI) course, volunteer faculty members are made aware of the specific session objectives via written communication and through face-to-face or telephone communication with the course director. Faculty members are provided written objectives for each of the structured learning activities that students are expected to complete while participating in the community clinic component of the course. An example can be found in ED-28, page 92.

In the Scientific Principles of Medicine (SPM) course units, all instructors are expected to review the institutional learning objectives as they design the learning sessions for which they are responsible. The institutional learning objectives are required to be tied to unit and session learning objectives. The majority of SPM are taught by full time faculty. Occasionally volunteer faculty members or senior resident faculty are involved. For example, residents are involved in the Integration of Systems segment in the emergency medicine simulations. Volunteer and resident physicians are made aware of the relevant course learning objectives in their specific training for these simulations.

In the Medical Skills course, clinical faculty who have incidental involvement are made aware of the individual session objectives by e-mail communication or hardcopy versions given to them. Again these objectives are directly linked to the course objectives which in turn are linked to the Institutional Objectives.

In the Scholarly Activity and Research Project program, volunteer faculty members are made aware of the relevant Institutional Objectives in their Potential/New Mentor Packets.

c. the academic leadership of the medical school and its affiliated institutions.

The senior associate dean for medical education is responsible for informing the dean and other members of the administrative staff (including department chairs and representatives of affiliated institutions) about the educational objectives of the curriculum. He is responsible for reporting on the status of those objectives (e.g., in what part of the curriculum they are addressed, how they are being assessed, how well students are performing and recommendations for changes that may be proposed by course committees or the Curriculum and Educational Policy Committee).

See also ED-24

ED-4. The program of medical education leading to the MD degree must include at least 130 weeks of instruction.

Provide the number of scheduled weeks of instruction in:

Year/Academic Period One	43
Year/Academic Period Two	39
Year/Academic Period Three	48
Year/Academic Period Four	31

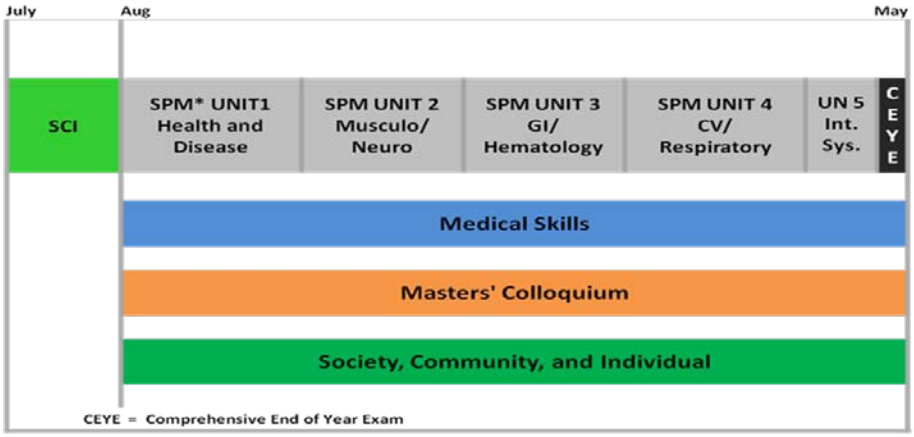
Total: 161 weeks

See also Part A, item (a.) in this section of the database.

ED-5. The medical faculty must design a curriculum that provides a general professional education, and that prepares students for entry into graduate medical education.

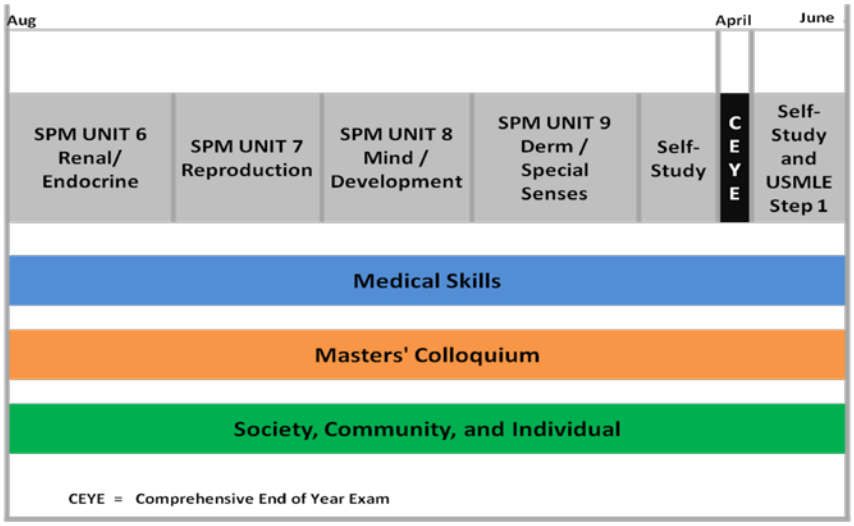
a. Supply a diagram that illustrates the structure of the educational program. The schematic or diagram should show the approximate sequencing of, and relationships among, required courses and clerkships in each academic period of the curriculum.

Curriculum Overview: Year 1



SPM = Scientific Principles of Medicine (Basic and Clinical Medical Science)
SCI = Society, Community, and Individual (Biostatistics, Epidemiology, Family, Community, Culture, Environmental/Occupational, Spanish)
Medical Skills = (Physical Exam, Diagnostics, Preventive Medicine)
Master's Colloquium = (Ethics, Professionalism, Personal Development)

Curriculum Overview: Year 2



Year 3 Integrated Block Curriculum

16 Weeks	16 Weeks	16 Weeks
• Internal Medicine • general (8 weeks) • selective (2 weeks) • Psychiatry (6 weeks)	• Obstetrics-Gynecology (8 weeks) • Pediatrics (8 weeks)	• Family Medicine (6 weeks) • Surgery • general (6 weeks) • selective (4 weeks)
• Integrated Teaching and Learning Experiences	• Integrated Teaching and Learning Experiences	• Integrated Teaching and Learning Experiences
• Longitudinal Selective in Psychiatry	• Maternal/Fetal/Neonate Experience	• Longitudinal Selective in Family Medicine
Threads: Geriatrics, Basic Sciences, Ethics, Professionalism, EBM, Patient Safety, Pain Management, Chronic Illness Care, Palliative Care, Quality Improvement, Communication Skills, Diagnostic Imaging, Clinical Pathology, Clinical and Translational Research.		

Year Four Curriculum

4 weeks	4 weeks	4 weeks	4 weeks	4 weeks	4 weeks	4 weeks	4 weeks	1 week
Sub- Internship	Critical Care	Emergency Medicine	Neurology	Elective	Elective	Elective	Elective	CAPSTONE
Threads: Geriatrics, Basic Sciences, Ethics, Professionalism, EBM, Patient Safety, Pain Management, Chronic Illness Care, Palliative Care, Quality Improvement, Communication Skills, Diagnostic Imaging, Clinical Pathology, Clinical and Translational Research.								

b. Provide a separate description of any educational tracks the school offers or plans to offer.

Students have the option of applying to participate in a dual degree MD/MPH program offered in collaboration with the University of Texas Health Sciences Center School of Public Health. Students who complete this program will be awarded the MD degree by the PLFSOM and the MPH degree by UTSPH.

The MPH degree requires the completion of a 45 credit hours curriculum with 33 credit hours originating at the UTSPH and 12 credit hours of public health relevant courses from the medical curriculum. Of the 33 hours in the UTSPH, 16 credit hours are required in the following public health core areas:

- Epidemiology
- Biostatistics
- Behavioral Science
- Environmental and Occupational Health
- Administration and Public Health

Each of these courses is available in an on-line format and can be completed in the summers prior to matriculation in medical school and in the summer between the first and second year. The remaining credits will be distributed across the four years of medical school. It should be noted that up to 12 credits for the MPH degree can be "shared credits" derived from Medical School course work. MPH degree credits will be given for the following PLFSOM course work:

Scientific Principles of Medicine immunology thread (3 credit hour)

Scientific Principles of Medicine microbiology thread (3 credit hours)

Masters Colloquium will meet the professionalism and ethics course requirements (3 credit hours)

Year 4 elective with public health emphasis (e.g., Clinical Preventive Medicine) (3 credit hours)

In addition, the two year required course, Society, Community, and Individual, meets the UTSPH requirement for a community based practicum.

Many MPH courses are available on-line and as interactive TV broadcasts during the evening hours, thus providing maximum flexibility.

Satisfactory completion of the requirements for the MD degree is the highest priority. Students electing to pursue the dual MD/MPH program will be monitored carefully. If a student has difficulty handling the demands of both programs s/he will be required to either decelerate his/her studies by adding a year between the second and third year of medical school to complete the MPH requirements or to withdraw from the MPH program. If a student elects to withdraw following the completion of the five required core courses listed above, s/he will be eligible to receive a Certificate in Public Health.

See also Required Courses and Clerkships (A. Summary Data)

ED-5-A. The educational program must include instructional opportunities for active learning and independent study to foster the skills necessary for lifelong learning.

It is expected that the methods of instruction and evaluation used in courses and clerkships will provide students with the skills to support lifelong learning. These skills include self-assessment on learning needs and independent identification, analysis, and synthesis of relevant information, as well as the assessment of whether information sources are credible. Students should receive explicit experiences in using these skills, and evaluation of and feedback on their performance.

a. Provide examples that illustrate the opportunities that exist in the curriculum for students to

- ***Evaluate their own learning needs***
- ***Identify, analyze, and synthesize information relevant to their learning needs***
- ***Assess the credibility of information sources***

The Paul L. Foster School of Medicine (PLFSOM) is committed to encouraging and reinforcing student achievement through independent study and the acquisition of the skills necessary to be effective lifelong learners. The faculty, through its course committee structure, Curriculum and Educational Policy Committee, and Faculty Council have endorsed a schedule that provides students a minimum of 12 unscheduled hours per week for individual study.

ORIENTATION

During orientation students complete three standardized and validated instruments designed to assess their learning styles and preferences and reading speed and comprehension. These assessments are administered by a PhD level educational psychologist in the Office of Student Affairs. She provides students with a written analysis. She also discusses with each student the potential implications for adapting to the rigors of medical education and a highly integrated approach to learning basic science concepts and content in a clinical context.

SCIENTIFIC PRINCIPLES OF MEDICINE (SPM) COURSE

In SPM, students complete weekly "formative" quizzes that are scored but do not contribute to grading decisions. These quizzes usually consist of 25 items drawn from the material covered in the preceding week. The quizzes are delivered electronically and students receive immediate feedback on their performance, along with explanations for the correct answers on all items. A primary goal of this component of the curriculum is to give students an opportunity to assess areas of strength and weakness to serve as a basis for making decisions about how to address personal learning needs and how to organize their self-directed learning efforts.

Tank-side Rounds—As part of our integrated instruction in anatomy, student teams complete the following exercise: Each team is responsible for identifying and documenting normal anatomy and pathologies. For each finding, the team hypothesizes possible causes and identifies information needed to evaluate the hypothesis, along with potential sources of that information. As the year progresses, students are expected to answer previous hypotheses and generate new ones based on their findings. Students use SOAP notes in an electronic medical record to document the process. A formative assessment at the end of the first semester includes presentation of findings to date and critique of the report. Summative assessment occurs at the end of the second semester and includes a grand rounds case presentation. The objectives of this exercise include team-work, integration of medical knowledge, communication skills, and practice of self-directed learning skills. (The scoring rubric for this presentation is in Section II, Appendix 4)

MASTERS COLLOQUIUM

The Masters Colloquium is a weekly series of topic-based discussions utilizing a student centered instructional approach. The goal of the Masters Colloquium is *"to promote critical thinking and reflective mindfulness in discourse and decision making, [and] respectfulness, empathy, and integrity in relations with others…."* The College Master(s) select(s) preparatory readings for each session. The College Master(s) then facilitate(s) the discussion: they introduce the topic, provide background information, and present questions, scenarios, videos, or cases to the students for analysis and discussion. Through their active participation, the students define the aspects of each case that they wish to examine, present their analysis and proposals, reflect and respond to counterproposals, and state the limits of their knowledge and understanding.

The College Masters have outlined the series of topics to be covered during the Colloquia. While many of these sessions afford students opportunities to reflect on their personal learning needs, 4 sessions explicitly address issues related to learning and the assessment of personal learning needs through conscious reflection. This 4 session series addresses: 1) "How we LEARN", 2) How we "THINK", 3) How we "DECIDE", and 4) "How and why we MAKE MISTAKES." Over the course of the curriculum, the College Masters leave several sessions with the discussion topic unspecified. Students will be allowed to choose the topic to discuss during these open Colloquium sessions.

Part of the summative assessment in the first two semesters of the Colloquia is based upon reflective essays. The students are asked to write an essay based upon personal experience (or the experience of individuals that they know). In these essays, they describe a difficult experience in which they were presented with a difficulty or dilemma, and analyze the choices available to them. They are then asked to push through to a proposed best action, and describe how they arrived at that conclusion.

SOCIETY, COMMUNITY, AND INDIVIDUAL (SCI)

In the epidemiology and biostatistics components of SCI, students are exposed to study designs including considerations of the relative strengths and weaknesses of the various designs used in basic, clinical, behavioral, and population based research. They are also given a thorough grounding in hypothesis testing. One of the primary goals of instruction in these areas, and others associated with the fields of epidemiology and biostatistics is to prepare students to be well informed consumers of the medical literature. Students should be able to identify whether a design is appropriate to the questions asked and whether the evidence supporting or refuting a hypothesis is credible.

b. Describe where and how in the curriculum there is or will be assessment of students' progress in developing the skills needed for lifelong learning, including the ability to learn through self-directed, independent study. Provide examples of any instruments used for such assessment.

MASTERS COLLOQUIUM

Periodically during the first pre-clerkship year, the students are assigned to write a reflective essay on a controversial or difficult experience. The students are assigned to use a predetermined format for the structure of the essay. Grading is performed by the College Masters using a standardized rubric which was developed by a consensus process. A copy of this rubric can be found in Section II, Appendix 5a-b.

SCHOLARLY ACTIVITY AND RESEARCH PROGRAM (SARP)

All students are required to complete a scholarly project on a topic of their own choosing by the time they graduate from medical school. As described in more detail in ED-17-A, this requirement is met through a multi-stage process. In the first stage, students identify a question or problem they would like to pursue

and develop a brief project plan that must be approved by the project mentor and a committee consisting of the SARP Project course directors and faculty who have expertise in the proposed general area of the project (e.g., basic research, clinical research, epidemiology, community-based participatory research). During the second stage, the student executes the project by gathering information or collecting data needed to address the problem they have selected. At the end of the execution phase, students submit a progress report that is reviewed by the mentor and oversight committee. In the final phase of the project, students prepare and make a poster presentation at a student symposium. The quality of their work at this final stage, and an indication of their ability to employ the skills needed for effective self-directed and independent study, is assessed by the SARP course directors and oversight committee utilizing a rubric incorporating such criteria as clarity of problem definition, clarity of project description, thoroughness of analysis and conclusions, demonstrated understanding of principles related to project, and ability to respond to questions from the judging panel. A copy of these rubrics can be found in Section II, Appendix 6.

c. How do students' abilities to develop and demonstrate the skills required for lifelong learning contribute to their overall evaluation? For example, is demonstration of these skills considered as a criterion for grading in any course or clerkship?

MASTERS COLLOQUIUM

During the second year of the Masters Colloquium, in support of the goal to develop critical thinking skills, the curriculum introduces activities in which students analyze the credibility of information sources or the validity of information gathered.

SCHOLARLY ACTIVITY AND RESEARCH PROGRAM (SARP)

As noted under part 'b' above, this aspect of the curriculum provides students opportunities to apply skills that are essential for effective and efficient life-long learning. The presence (or absence) of these skills are evident in the planning document, intermediate progress report, and in the poster presentation students prepare at the conclusion of their project. Passing this requirement requires satisfactory evaluations by the course directors and oversight committees. A student who falls short will be required to revise and re-submit to satisfactorily complete the requirement.

REQUIRED YEAR 3-4 CLERKSHIPS

The following are examples of year 3-4 activities that will be used to asses student skills in lifelong learning that will be included in the overall assessment of student performance.

In the **Internal Medicine** component of the Medicine/Psychiatry block students will complete an Evidence-Based Medicine project on a patient discussed in morning report. Students will be expected to formulate a clinical question, search the literature, formulate an answer to the question based on a critical appraisal of the literature, and present the results of their review to the ward team.

In the **Surgery** component of the Surgery/Family Medicine block, student will participate in a "case based learning" exercise developed by the clerkship director. Students complete a pre-test consisting of clinical case vignettes upon which they complete multiple choice or fill in the blank questions. Based on their performance, students identify topic areas in which they need to focus more attention to address knowledge deficits. The students then identify their own resources to address knowledge deficits and assess the effectiveness of their self-directed study based on their performance in the topic area on the shelf-exam. A similar type of program is planned for the **Emergency Medicine** clerkship. In this

experience, however, students demonstrate their learning on a topic that they have selected for focused review by giving a case presentation to members of the department.

In the year 4 **Critical Care** selective, students will choose a topic from a list provided by the clerkship, identify resources with an emphasis on primary literature, complete a systematic review of the literature they identified and then make a formal oral presentation on the topic.

ED-6. The curriculum must incorporate the fundamental principles of medicine and its underlying scientific concepts; allow students to acquire skills of critical judgment based on evidence and experience; and develop students' ability to use principles and skills wisely in solving problems of health and disease.

ED-7. It must include current concepts in the basic and clinical sciences, including therapy and technology, changes in the understanding of disease, and the effect of social needs and demands on care.

Provide one or more examples of where in the curriculum there is or will be attention to students' development of the following skills and understanding:

a. Skills of critical judgment based on evidence

MEDICAL SKILLS COURSE

The use of evidence in medical decision-making and judgment has been incorporated into the Medical Skills course curriculum as follows:

When appropriate, and when data is available, the diagnostic power of diagnostic information (specifically key elements of the medical history, focused physical findings, and abnormalities noted on diagnostic studies) is presented to the students in terms of LIKELIHOOD RATIOS. An explanation of likelihood ratios was included in a didactic presentation during Unit 2, and again in the video prepared for the session on abdominal pain in Unit 3.

Murphy's sign: for acute cholecystitis
o Hold continuous firm pressure in the RUQ during deep inspiration.
o Test is positive if there is inspiratory arrest.
EBM: positive Murphy's sign has a weak +LR of 1.9.
Negative Murphy's sign has a weak –LR of 0.6
McBurney's point tenderness: for appendicitis
o Palpate with a finger at a point 1/3 of the way from the ASIS to the umbilicus.
EBM: presence of tenderness has a moderate +LR of 3.4
Absence of tenderness has a –LR of 0.4
Rovsing's sign of indirect tenderness: for appendicitis
o Press with the examining hand over the ***left*** lower quadrant.
o Positive if pain is felt in the right lower quadrant.
EBM: positive Rovsing's sign has a weak +LR of 2.5
Negative Rovsing's sign has a weak –LR of 0.7
Blumberg's sign of rebound tenderness: for peritonitis
o Maintain pressure over an area of tenderness; then withdraw the hand abruptly.
o Test is positive if the patient winces with pain.
EBM: positive rebound tenderness has a weak +LR of 2.1

Negative rebound tenderness has a moderate –LR of 0.5.

In two first year sessions, evidence-based decision rules have been included in preparatory materials and as learning exercises. For example, during the second week of Unit 1, the Centor decision rule for streptococcal pharyngitis was included in the session preparatory materials.

WORKSHEET: Medical Skills, Unit One, Session 2: Sore Throat

In order to determine your patient's likelihood of having GAS pharyngitis, you need two bits of information:

1. The pretest (a priori) probability that the patient has GAS infection (as opposed to viral pharyngitis).
2. The likelihood ratio, which is calculated from findings Sunday history and physical examination.

Pretest probability:

The pretest probability that a patient has infection with GAS varies with age. Generally speaking in the outpatient setting, patients presenting with sore throat will have the following probability of GAS infection:

- Children aged 5 to 9 …… 30%
- Adolescents aged 10 to 19 …….. 15-20%
- Young adults …….. 5 -10%

Likelihood Ratio:

The Centor prediction rule is used to calculate the likelihood of GAS infection from findings on history and physical. To use the rule, assign 1 point each for:

- History of fever
- Absence of cough
- Tonsillar exudate
- Cervical adenopathy

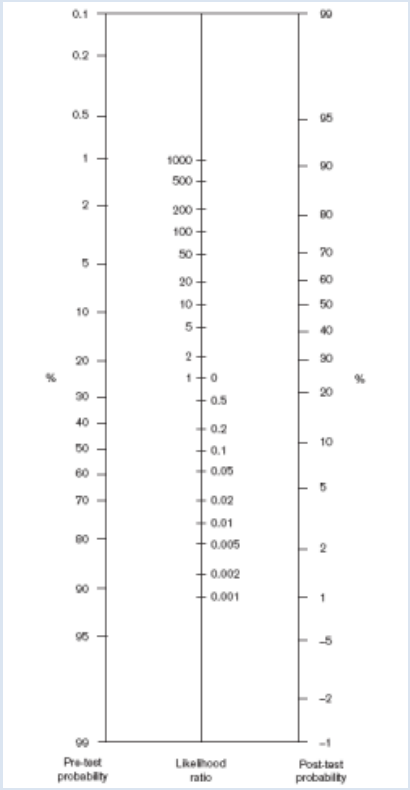
The positive likelihood ratio (derived from comparison studies in patients presenting with sore throat) is:

- 4 points = 6.3
- 3 points = 2.1
- 2 points = 0.75
- 1 point = 0.3
- 0 points = 0.16

WORKSHEET: Medical Skills, Unit One, Session 2: Sore Throat

With these two numbers, you can now proceed to perform a probability calculation.

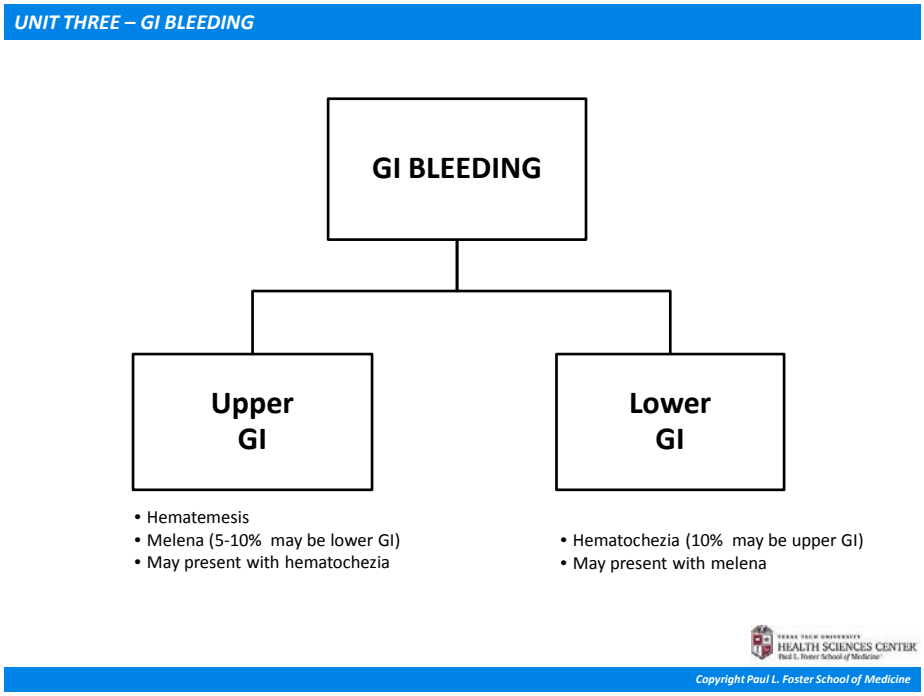
Probability calculation:

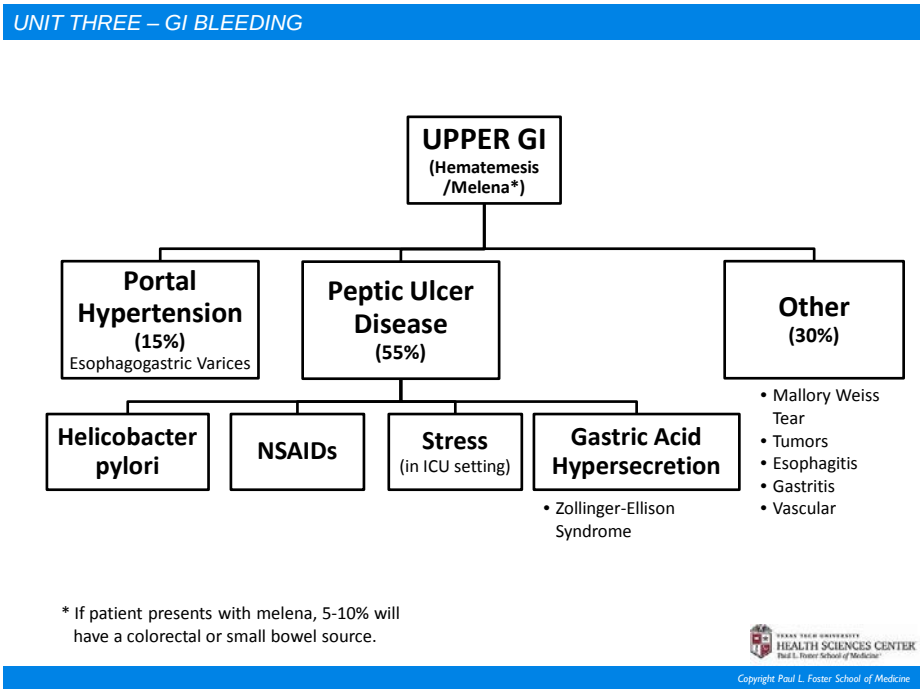
Step One: estimate the pretest probability that the patient has GAS pharyngitis. • Use prevalence data from the literature • Also use your experience, clinical intuition, and knowledge about the population being tested	Estimate of pretest probability = _____ %
Step two: use the nomogram in the following manner: • Mark the pretest probability on the left side of the nomogram. • Mark the likelihood ratio (gained from the history and physical examination) on the center scale. • Use a straight edge to extend a line from the pretest probability through the likelihood ratio and onto the scale on the right side of the nomogram. Where the line intersects the scale, read the post test probability. NOTE***: rules of thumb for LR:*** If LR is >10, test is conclusive If LR is 5-10, gain is moderate If LR is 2-5, gain is small If LR is 1-2, test is inconclusive	
Step three: compute the information gain: calculate the arithmetic difference between the pre-test and post-test probabilities.	Info gain = post test prob. minus pretest prob. _____ % = _____ % - _____ %

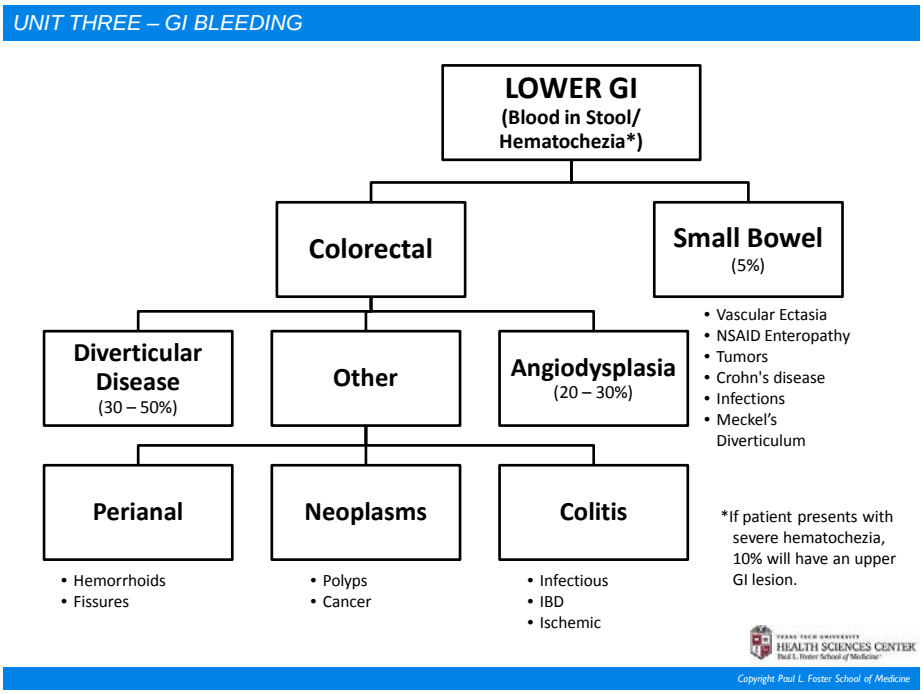
b. Skills of medical problem-solving

SCIENTIFIC PRINCIPLES OF MEDICINE (SPM)

The SPM course is an organ-based curriculum organized around a series of clinical presentations (CPs, e.g., the patient with chest discomfort). Each week of instruction begins with an experienced clinician presenting a "clinical scheme" organized as a branching diagram illustrating how s/he approaches and thinks about a patient presenting with a problem like GI Bleeding—see example scheme below. This is illustrates the clinical reasoning and problem solving process. At the end of the week, students participate in a 2 hour small group experience in which they meet with a physician tutor and employ the scheme and a "process work sheet" (see Section II, Appendix 2) to analyze real patient paper cases to arrive at a diagnosis. These sessions are also structured to encourage students to review important basic science content and concepts in the context of the case analysis.







MEDICAL SKILLS

The most fundamental goal of the Medical Skills Course is medical problem-solving which is, in turn, the most fundamental goal of the clinical presentation based curriculum. Every week, the students are presented with a problem-solving exercise that is based upon the clinical presentation for the week. These exercises are mainly presented in three formats.

1. During each Unit, students are presented with Standardized Patient exercises.
    a. A clinical condition is selected from the list of conditions included in the clinical presentation of the week. Standardized patient scenario is designed, and a panel of actors is trained to portray the scenario.
    b. During the medical skills session, medical students interview and examine the standardized patients, and then type a brief progress note in which they present their differential diagnosis and clinical reasoning.
    c. The medical students are videotaped during these interactions and a selected number of these videotapes are reviewed. The students receive feedback on their videotaped performance.
    d. At the end of each standardized patient scenario, the standardized patients themselves rate the student's performance on a series of criteria. A number of these criteria relate to clinical problem solving. Aggregate data is prepared immediately after each standardized patient scenario and is presented to the students for feedback.
2. Approximately once during each Unit, students participate in a Human Patient Simulator (HPS) exercise. The HPS can portray clinical presentations that are technically not feasible using an actor such as respiratory failure, shock, and coma.
    a. HPS scenarios are crafted from the diagnoses included in the clinical presentation of the week. The scenario's are scripted to present the medical students with decision-making problems that require them to apply the content covered during the previous week in Scientific Principles of Medicine.
    b. The HPS scenarios are typically conducted as a small group exercise facilitated by a medical specialist. Decision-making is reviewed and discussed during the scenario and during a post-scenario wrap-up session.
3. Certain clinical presentations have a high requirement for cognitive skill development. For example, abnormalities of acid-based status require the students to perform a number of calculations on laboratory results. For these presentations, the Medical Skills Course includes problem-solving workshops.
    a. During Unit 2, workshops included
        i. rapid evaluation of fractures and dislocations
        ii. evaluation of cognitive impairment in the geriatric patient
        iii. practice cases in the neurologic examination
    b. During Unit 3, workshops included
        i. evaluation of swallowing difficulties
        ii. practice cases in anti-coagulation and thrombosis
        iii. practice cases and interpretation of liver function studies
    c. During Unit 4, workshops include
        i. ECG interpretation
        ii. analysis of arrhythmias
        iii. heart sounds and heart murmurs

iv. interpretation of hemodynamic data

v. interpretation of pulmonary function tests

d. During Unit 5, a workshop include

i. acute evaluation and treatment of cardiac arrest

e. During Unit 6, workshops include

i. interpretation of laboratory studies and renal patients

ii. practice cases in acid-base disorders

iii. interpretation of thyroid function studies

iv. interpretation of endocrine studies

f. During Unit 8, workshops include

i. interpretation of psychological tests for mood disorders

ii. interpretation of psychological tests for attention deficit disorder

c. Knowledge and understanding of societal needs and demands on health care

The **Society, Community, and Individual (SCI)** course emphasizes societal needs, health care disparities, and the unique character and needs of the predominantly Hispanic community on the Texas-Mexico Border. In fact, the MS1 year of the PLFSOM begins with a 3-week mini-immersion experience on language, culture, and community of El Paso and the border region. This immersion experience includes instruction in Spanish and the completion of a community assessment project supervised by a faculty member who has a background in public health. The following is a partial list of sessions related to societal and health care issues:

- What is Community?
- Mexican-American Culture
- Population Dynamics on the Border
- What is Culture and Why it Matters
- Health Effects of Environmental Contaminants
- Promoting Health in the Community
- Families in Transition and the Family Life Cycle

The **Masters Colloquium** also includes sessions in which students explore the issues of societal needs and demands on healthcare. Examples include the following:

- Culture and diversity
- Ethical issues in intensive patient care, palliative care and pain management
- End of life/hospice care
- Ethics of Life sustaining interventions and the persistent vegetative state.
- Assisted suicide/dying
- Ethics of healthcare distribution, economics and reform
- Socioeconomics issues of US healthcare systems

- The aging US population and socioeconomic implications
- The changing demographics of the US population and socioeconomic implications
- Gender issues in medicine
- Global Health Needs

ED-8. There must be comparable educational experiences and equivalent methods of evaluation across all alternative instructional sites within a given discipline.

Compliance with this standard requires that educational experiences given at alternative sites be designed to achieve the same educational objectives. Course duration or clerkship length should be identical, unless a compelling reason exists for varying the length of the experience. The instruments and criteria used for student evaluation, as well as policies for the determination of grades, should be the same at all alternative sites. The faculty who teach at various sites should be sufficiently knowledgeable in the subject matter to provide effective instruction, with a clear understanding of the objectives of the educational experience and the evaluation methods used to determine achievement of those objectives. Opportunities to enhance teaching and evaluation skills should be available for faculty at all instructional sites.

While the types and frequency of problems or clinical conditions seen at alternate sites may vary, each course or clerkship must identify any core experiences needed to achieve its objectives, and assure that students received sufficient exposure to such experiences. Likewise, the proportion of time spent in inpatient and ambulatory settings may vary according to local circumstance, but in such cases the course or clerkship director must assure that limitations in learning environments do not impede the accomplishment of objectives.

To facilitate comparability of educational experiences and equivalency of evaluation methods, the course or clerkship director should orient all participants, both teachers and learners, about the educational objectives and grading system used. This can be accomplished through regularly scheduled meetings between the director of the course or clerkship and the directors of the various sites that are used.

The course/clerkship leadership should review student evaluations of their experiences at alternative sites to identify any persistent variations in educational experiences or evaluation methods.

All first and second year courses are at a single site, with one exception. In the Society, Community, and Individual (SCI) course, students work in community clinic settings in the greater El Paso area. These settings include community partnership clinics and health related organizations. These settings have their own unique characteristics and qualities. However, comparability of educational experiences is maintained through frequent and careful communication, the use of a common set of learning objectives and expectations for students, and frequent meetings with representatives of the cooperating community organizations. The SCI course director also visits these sites at least 2 times per year.

Most of the training of students in the required courses and clerkships in years 3-4 occurs at University Medical Center and clinic sites that are part of this community hospital complex. However, some students are assigned to other hospital affiliates in El Paso. In addition, ambulatory experiences are provided in a variety of sites and locations throughout the city. Comparability of educational experiences and equivalence of student assessment will be maintained through frequent communication, the utilization of a common set of learning objectives, learning activities, and a shared syllabus regardless of the site.

For each course or clerkship that will be offered at more than one teaching site, describe the following:

a. How faculty members at each site are or will be oriented to the objectives and grading system for the course or clerkship.

SOCIETY, COMMUNITY, AND INDIVIDUAL COURSE (SCI)

The SCI course director meets with the key leaders of the community partnership clinics and other health organizations to describe program goals, objectives and expectations for students. These community partners are also given copies of the course syllabus and other materials. Specifically, faculty at the community health clinics are briefed annually at the beginning of the academic year by the SCI course director, regarding course goals, learning objectives, and expectations of the students. Community clinic faculty are also provided a print copy of a "briefing book" describing the learning activities that students are required to complete at each of their scheduled visits, including the criteria to be used by the community faculty and course director to assess student performance on each of these required activities. The SCI course director determines the final student grades based in part on this input.

In addition, the SCI course has established a Community Clinic Advisory Committee that meets at least quarterly with the course director, course coordinator, and senior associate dean for medical education to discuss course implementation and to discuss what is working well and areas in need of modification or improvement.

REQUIRED CLERKSHIPS

A small number of students will complete required clerkship and selective experiences at clinical sites other than University Medical Center. At each of these settings there will be a designated coordinator who has a faculty appointment at the PLFSOM. This individual will serve as a liaison between the faculty at his/her location and the clerkship director at PLFSOM. The designated clerkship director will meet with the site coordinator and faculty at least once a year to orient them to the syllabus, expectations, learning objectives and activities, and to review the evaluation form that will be completed on each student. In addition to this general orientation, the clerkship director will meet with the site coordinators at least 3 times a year and will communicate by phone or e-mail as often as needed to assure the quality of the student learning experience.

b. How and how often individuals responsible for the course or clerkship will communicate with faculty at each site regarding planning, implementation, student evaluation, and course evaluation.

SOCIETY, COMMUNITY, AND INDIVIDUAL COURSE (SCI)

The course leaders and community partners meet prior to the initiation of the course or new learning unit during course operation, at the mid-point to assess student experiences, and at the end of the course for an appraisal of course implementation. Problem solving sessions are convened as needed to assure optimal course implementation.

REQUIRED CLERKSHIPS

As noted above, each clerkship director will meet at least annually with the faculty at affiliated clinical teaching sites and will meet at least 3 additional times a year with the clerkship coordinators at these sites to review student assessments, clerkship evaluations, and to discuss any changes that might be needed to

optimize the quality of the experience for learners and faculty alike. Frequent phone and e-mail communication will also occur.

c. The process by which faculty development activities related to teaching and evaluation will be made available to instructional staff across sites and the frequency with which these activities are or will be provided. Indicate the types of faculty development activities that already have been offered and the level of faculty participation.

Formal teaching and evaluation of students will be conducted by faculty in the School of Medicine who will have all participated in faculty development activities described in the section IV (please see FA-4 and FA-11).

At present, faculty development for SCI preceptors takes place through face-face orientation meetings with the course director. She also provides each preceptor with a detailed "briefing book" outlining student learning expectations and describing in detail the experiences that need to be provided and how student performance will be assessed for that experience. An example excerpt is provided in Section II, Appendix 7.

As discussed in FA-4 section IV of the data base, the associate dean for faculty affairs and development has developed an 8 module basic faculty development for community based faculty that addresses principles of adult learning, teaching techniques appropriate to the clinical setting, and student assessment. This program was implemented in late Fall 2010. This program will be available in through synchronous and asynchronous modalities to facilitate participation.

Also see standard FA-11.

ED-10. The curriculum must include behavioral and socioeconomic subjects, in addition to basic science and clinical disciplines.

Lists of subjects widely recognized as important components of the general professional education of a physician are included in the medical education database completed in preparation for full accreditation surveys, and in the LCME Part II Annual Medical School Questionnaire. Depth of coverage of the individual topics will depend on the school's educational goals and objectives.

a. Check the topics listed below that are included in the curriculum as part of a required course and/or are planned for inclusion in a required clerkship. Provide the total number of sessions in which each topic is (or will be) included in one or more required courses/clerkships in the preclinical and clinical phases of the curriculum. This means that the subject is included in the objectives for the session or as a significant topic covered during that session.

Content Area	Subject Is or Will be Included in Required Course/ Clerkship	Number of Sessions in Required	
		Preclinical Course(s)	Clinical Clerkship(s) (planned)
Biostatistics	√	SCI: 7	5
Communication skills	√	MS: 63 MC: 6	5
Community health	√	SCI: 7	2
Complementary/alternative health care	√	SCI: 1 MC: 2	2
Cultural diversity	√	SCI: 33 MC: 2	2
End-of-life care	√	MS: 1 MC: 5	2
Epidemiology	√	SCI: 7	5
Evidence-based medicine	√	SCI: 1 MC: 5	5
Domestic violence/abuse	√	MS: 1 SPM: 2 MC: 1	5
Global health issues	√	SCI: 1 MC: 2	
Health care financing	√	MC: 1	2
Health care systems	√	SCI:16 MC: 7	2

Content Area	Subject Is or Will be Included	Number of Sessions in Required	
Health care quality improvement	√	MC: 1	
Health disparities			2
Human development/life cycle	√	SCI: 5 MS: 2	3
Human sexual/gender development	√	SPM: 2	2
Human sexuality/sexual functioning	√	MS: 2 MC: 1	2
Medical ethics	√	MC: 18	10
Medical genetics	√	MS: 1 SPM: 30 MC: 1	2
Medical humanities	√	MC: 9	1
Medical informatics	√	MS: 58 MC: 5	6
Medical jurisprudence	√	MC: 4	1
Medical socioeconomics	√	MC: 4	2
Nutrition	√	MS: 2 SPM: 12	2
Occupational health/medicine	√	SCI: 1 MS: 1	1
Pain management	√	MC: 1	4
Palliative care	√	MS: 1 MC: 1	4
Patient safety	√	MS: 4 MC: 1	4
Population-based medicine	√	SCI: 4	2
Prevention/health maintenance	√	MS: 6 SPM: 4	3
Rehabilitation/care of the disabled	√	MS: 1	1
Research methods	√	SCI: 1 SARP: variable based on student needs	2

Content Area	Subject Is or Will be Included	Number of Sessions in Required	
Substance abuse	√	MS: 2 SPM: 14 SCI: 2	4

Also see standards ED-13, ED-17, ED-17A, ED-19, ED-20, ED-28,

ED-11. [The curriculum] must include the contemporary content of those disciplines that have been traditionally titled anatomy, biochemistry, genetics, physiology, microbiology and immunology, pathology, pharmacology and therapeutics, and preventive medicine.

No additional information is required.

See information for standards ED-5, ED-10, and Required Courses and Clerkships (B. Required Course Forms)

ED-12. **Instruction within the basic sciences should include laboratory or other practical opportunities for the direct application of the scientific method, accurate observation of biomedical phenomena, and critical analyses of data.**

Opportunities could include hands-on or simulated (for example, computer-based) exercises where students either collect or utilize data to test and/or verify hypotheses or to address questions about biomedical principles and/or phenomena. Schools should be able to illustrate where in the curriculum such exercises occur, the specific intent of the exercises, and how they contribute to the objectives of the course and the ability to collect, analyze, and interpret data.

a. List the preclinical courses that include laboratory sessions.

The following courses during the first two years of the curriculum include laboratory sessions, including computer-based simulations:

- Scientific Principles of Medicine
- Medical Skills
- Society, Community, and the Individual

b. Describe where in the curriculum students have opportunities to participate in educational sessions (actual or simulated) that involve the direct application of the scientific method, accurate observation of biomedical phenomena, and the collection or analysis of scientific data.

SCIENTIFIC PRINCIPLES OF MEDICINE (SPM)

SPM is the primary course for delivery of the core basic science material in the curriculum. During this course, students are exposed to laboratory sessions related to the disciplines of anatomy, histology, physiology, microbiology, and immunology.

Gross and Neuro-Anatomy: These laboratories are designed to introduce students to the visual anatomic arrangement of the human body. This is accomplished using donors (cadavers), visual imaging, and computer imaging. Students dissect donor bodies; observe prosected donors, plasticized models, and various diagnostic imaging modalities. In addition to commercially available images, each donor is CAT scanned prior to the initiation of dissection. This scanning allows the students to directly relate imaging of the donor with their direct observations obtained during dissection studies. The students also have access via computers in the laboratories or personal laptops to the following anatomic software packages: Anatomy TV, VH Dissector, Elsevier 3D Anatomy, Netter Presenter, Grant's Dissector, Grant's Atlas of Anatomy, Clinically Oriented Anatomy, Clinical Neuroanatomy, and Neurosciences & Neuroanatomy. The wide variety of available programs is to allow students to customize their investigations.

A total of 72 hours of laboratory are dedicated to gross and neuroanatomy during years one and two. There is a major program employed in the lab designed to promote development of critical thinking skills, clinical reasoning, empathy, teamwork and professionalism, in addition to anatomical knowledge. This program is referred to as the ***Einstein Project.***

The ***Einstein Project*** was adapted from the Albert Einstein College of Medicine, where it was developed by Dr. Todd Olson. The first day of lab involves no dissection. It is an examination of each donor cadaver by a practicing clinician in the presence of the students assigned to that cadaver. The students then write a report in an on-line reporting system that describes their observations (e.g., body condition, bruises, scars, medical devices, lump, etc.) and their hypotheses as to what the findings might mean.

Over the next two years they will add to their reports as they dissect and discover new findings and write new hypotheses. The electronic interface also allows students to request consults from expert clinicians, who then come to the lab to provide their expert guidance about things such as surgeries, masses, implanted devices, etc. At year's end, each team presents oral reports of their findings and hypotheses in the form of "Tank-side grand rounds."

Histology: The Histology component is delivered in the curriculum in two ways: 1) presentation of material and observation of slide material in a large group setting and 2) observation using virtual microscopy employing the Bacchus image system. The students have 24 hour access to the Bacchus imaging system via computer interfaces. Students are expected to correlate gross anatomy and histology of each organ system.

Physiology, Immunology and Microbiology: 23 hours of laboratory time is designated for these disciplines. In the immunology and microbiology labs, the students utilize standard laboratory techniques to investigate antigen/antibody relationships and interpret clinical data based on these procedures, discover basic techniques that relate to identification of microbiological agents in various body fluids, and relate microbiological phenomena to the establishment of infections in various tissues. In the physiology laboratories, the students investigate how membrane potentials are generated, how membrane potentials are then modified to generate graded and action potentials, properties associated with EEG recordings and brain functions, basic properties of skeletal muscle contraction, blood pressure regulation at rest and exercise and respiratory volumes in health or disease and how these are modified during exercise, and how the basic senses of vision, hearing and cutaneous sensation function. The data for these laboratories are collected by using the "Powerlab" systems from AD Instruments. Graphs are generated and the data analyzed in terms of application to clinical medicine.

MEDICAL SKILLS

This course provides instruction in the skills of bedside physical examination and interpretation of common diagnostic studies. Examples of clinical exercises that require students to make observations and interpretations of biomedical phenomena include:

- Group exercises in which students examine and interpret hemodynamic findings and other data from Human Patient Simulators (HPS). During these facilitated exercises, the students are asked to describe their findings, state their interpretation of the findings, and state how this changes their approach to management.
- Standardized patient exercises in which the standardized patients are trained to portray various abnormalities, including neurologic deficits, abnormal lung and heart sounds (using an electronic simulator to create the abnormal findings), and musculoskeletal limitations secondary to specific injuries. Students are required to make clinical observations, analyze and interpret the findings, and state their conclusions in a written note.
- Skill development workshops in which the students practice physical examination skills such as examination of the retina using the ophthalmoscope, as well as examination of partial task simulators with images of abnormal retina findings.
- Instructional sessions in which students practice interpretation of electrocardiograms, including correlation of abnormalities on electrocardiogram with underlying pathophysiologic processes.

- Instructional sessions on interpretation of pulmonary function studies, with correlations to underlying classes of lung disease.
- Instructional sessions on auscultation of cardiac murmurs using the Harvey cardiac murmur simulator, including correlation of abnormal findings to the underlying cardiac pathophysiology.

SOCIETY, COMMUNITY AND INDIVIDUAL (SCI)

In SCI, students learn to analyze statistical and epidemiological data. The students spend 28 hours in sessions designed to introduce them to the power of interpretation utilizing information that can be gleaned from patient data (epidemiology) and the tools needed to accurately interpret the meaning of this data (biostatistics).

In the **Biostatistics** thread, students are exposed to three main learning experiences: (1) lecture/discussion of biostatistical concepts, (2) hands on data analyses using statistical software and "real" peer-reviewed data, and (3) clinical journal review for the purpose of introducing and extending the translation of scientific research to clinical practice (evidence based medicine). These experiences are meant to not only expose students to the subject matter in biostatistics, but also to aid in their ability to critically analyze data.

In the **Epidemiology** thread, students learn about the calculation and interpretation of measures of disease frequency and measures of association. Common research study designs are also reviewed. Skills needed to critically evaluate the medical literature are addressed in a lecture on alternative explanations (namely chance, bias, and confounding) to study results. In addition to detailed epidemiological analysis, students learn how to analyze social aspects of patient profiles within communities to assess community wide medical needs.

MASTER'S COLLOQUIUM

In Year 2 of this course, four sessions are devoted to "Clinical Problem Solving." This will provide students opportunities to identify appropriate data sources, critically assess the relevance and quality of data, and apply data to selected clinical problems.

SCHOLARLY ACTIVITY AND RESEARCH PROGRAM (SARP)

As described in more detail in ED-17-A, all students are required to select a topic or problem they would like to investigate under the supervision of a qualified mentor. This requirement will enable students to identify and define a problem, select methods appropriate to addressing their problem, collect and analyze data, and draw conclusions based on their analysis.

See also Required Courses and Clerkships, Part A, item (A.).

ED-13. Clinical instruction must cover all organ systems, and include the important aspects of preventive, acute, chronic, continuing, rehabilitative, and end-of-life care.

How does the school ensure that each of the above aspects of clinical medicine will be included as part of required preclinical and clinical instruction?

The 4-year curriculum leading to the MD degree at the PLFSOM has been designed to ensure that students are exposed to all organ systems and that they address the diagnosis and treatment of illness and disease from a variety of perspectives—acute, emergent, chronic, and rehabilitative. Issues related to palliative and end-of-life care are threaded throughout the four year curriculum. Organ systems serve as an organizing principle during the pre-clerkship phase of instruction. Years 3 and 4 provide clinically intensive instruction in all of the major clinical disciplines and afford students both "selective" and elective subspecialty experience.

Curriculum content (objectives, learning session materials, assignments, clinical encounters, etc) is managed centrally through Ilios, a curriculum management data base. Course and clerkship directors are required to present their courses/clerkships to the Curriculum and Educational Policy Committee (CEPC) at least twice a year—prior to each administration and again following administration. The CEPC is responsible for providing the oversight necessary to ensure that there are no gaps in the delivery of content necessary for the education of competent physicians.

See also information for standard ED-10.

ED-14. Clinical experience in primary care must be included as part of the curriculum.

List each required course and clerkship that does or will provide experiences in primary care, and specify the number of hours or weeks devoted to the topic of primary care in each such course or clerkship.

PRE-CLERKSHIP CURRICULUM

Society, Community and Individual – Students spend one half day per month throughout the first and second years of the curriculum in community clinic settings in the greater El Paso area. These clinics are all primary care facilities staffed primarily by family physicians, general pediatricians, and general internists.

CLERKSHIPS

Family Medicine = 8 weeks (including 15-week half day per week longitudinal selective in family medicine)

Pediatrics = 2 weeks

Internal Medicine = 8weeks

Elective opportunities in primary care disciplines and settings are available in year 4.

ED-15. The curriculum should include clinical experiences in family medicine, internal medicine, obstetrics and gynecology, pediatrics, psychiatry, and surgery.

Schools that do not require clinical experience in one or another of these disciplines must ensure that their students possess the knowledge and clinical abilities to enter any field of graduate medical education.

a. Will the curriculum include a separate required clerkship in each of the above disciplines?

Students are required to complete clerkships in Internal Medicine, Family Medicine, Pediatrics, OB-GYN, Psychiatry, and Surgery, which are offered during the third year of the four year curriculum.

b. If the educational program will not include a separate required clinical clerkship in any of the above disciplines, describe where in the curriculum students will acquire the knowledge and skills that would be comparable to the learning objectives that would be included in the absent clinical disciplines(s).

Not applicable.

See also information for standard ED-5.

ED-16. Students' clinical experiences must utilize both outpatient and inpatient settings.

a. For each required clinical clerkship, indicate the approximate percentage of time that students will spend in the ambulatory setting.

YEAR 3 REQUIRED CLERKSHIPS

- Internal Medicine = 20%
- Psychiatry = 70%
- OB-GYN = 40%
- Pediatrics = 50%
- Surgery = 30%
- Family Medicine = 100%

YEAR 4 REQUIRED CLERKSHIPS/SELECTIVES

- Critical Care = 0%
- Emergency Medicine = 100%
- Neurology = 45%
- Medicine Sub-I = 0%
- Surgery Sub-I = 30%
- Pediatrics Sub-I = 0%

See also responses to Required Courses and Clerkships, Part A, item (A.).

ED-17. Educational opportunities must be available in multidisciplinary content areas, such as emergency medicine and geriatrics, and in the disciplines that support general medical practice, such as diagnostic imaging and clinical pathology.

Describe where in the curriculum the following subject areas will be covered.

a. Emergency Medicine

Emergency Medicine is a required four week clerkship during the fourth year of medical school.

b. Geriatrics

PRE-CLERKSHIP CURRICULUM

Scientific Principles of Medicine (SPM)

Geriatrics is threaded throughout the four year curriculum. Age related changes and illnesses associated with aging are addressed in all units of the Scientific Principles of Medicine Course.

Medical Skills

Several topics that are included in the Medical Skills curriculum are pertinent to geriatric medicine. These include gait disturbance, imbalance, and ataxia; deformity and limp; altered mental status; incontinence of urine and stool; and falls in the elderly.

Masters Colloquium

The content of the Masters Colloquium is not specifically related to clinical specialties, but several of the topics do bear on aspects of geriatric practice. These include

- death and dying
- the aging US population and socioeconomic implications
- issues in the ICU, palliative care, end-of-life care, hospice care

CLERKSHIPS

The Paul L. Foster School of Medicine has adopted an integrative approach to teaching and assessing geriatric competencies thought out the third and fourth years of the curriculum. Geriatricians have been attached to the design teams for the required clerkships as part of the Year 3-4 Task Force that was charged with developing the clerkship curriculum. The Minimum Geriatric Competencies for Medical Students endorsed by the American Geriatric Society served as a guide to developing and implementing a curricular materials in the following domains: medical management (3 objectives); cognitive and behavioral disorders (5 objectives); self-care capacity (3 objectives); falls, balance, and gait disorders (2 objectives); health care planning and promotion (3 objectives); atypical presentation of disease (2 objectives); palliative care(3 objectives); and hospital care for elders (5 objectives) (see Academic Medicine, Vol 84, no. 5/May 2009). The philosophy of the PLFSOM is that all graduating physicians, regardless of eventual specialty, need to be prepared to provide appropriate care to aging patients. Consequently, geriatric topics will be included in each of the required third and fourth year clerkships. However, the Internal Medicine and Family Medicine clerkship components will be primarily responsible for meeting geriatric competencies.

c. Diagnostic Imaging/Radiology

PRE-CLERKSHIP CURRICULUM

Scientific Principles of Medicine Course (SPM)

Diagnostic imaging and radiology is integrated into each SPM organ system unit. To facilitate this integration we have made the following types of resources available to students:

- Drs. Sanja Kupesic (editor) and Bhargavi Patham (co-editor) have created an on-line Medical Image Library (MIL) database (http://ilios.ttuhsc.edu/VMI/(S(2oribe55nj0qaafcm2mxtt45))/Default.aspx). The images in this database have been contributed by faculty in the Department of Radiology. Currently there are more than 2,000 images in this searchable/browseable database. Faculty members routinely use these images in their presentations, for exam questions, and for the Worked Case Example Sessions. Students have ready access for study. The editors are continually adding content to this excellent database.
- The Department of Medical Education purchased an ultrasound unit dedicated to medical education. This instrument has been used by students for abdominal imaging, and will be used for heart imaging. The motivation for this purchase is that there is no substitute for hands-on experience for teaching students to interpret ultrasound.
- Each of the donor cadavers used by students were CT scanned from head to pelvis and these DICOM datasets were provided to each student. Each student has these datasets on their laptops for their review and study.
- CT and MRI DICOM datasets from anonymous, living patients have been provided to students for their review and study. Students have these on their laptops.

Medical Skills Course

The Medical Skills Course includes sessions on interpretation of basic radiologic studies. These sessions include interpretation of the basic chest x-ray, interpretation of bone films in fracture and dislocation, the interpretation of barium swallow studies, the use of renal ultrasound and evaluation of renal failure, and the interpretation of pelvic ultrasound.

CLERKSHIPS

Students learn to incorporate imaging results in their evaluation of patients in each of the required clerkships in years 3 and 4 as a threaded component of the curriculum.

d. Clinical Pathology

PRE-CLERKSHIP CURRICULUM

Scientific Principles of Medicine

Clinical and anatomic pathology are integral components in all units of the SPM course.

Medical Skills

The Medical Skills Course includes sessions on the interpretation of basic clinical pathology studies. These include the interpretation of:

- spinal fluid analysis
- peripheral blood smears and bone marrow biopsies
- lymph node biopsies
- coagulation studies
- findings on examination of urinary sediment
- serum electrolytes
- endocrinologic studies of thyroid, pituitary, and adrenal function
- hemoglobin and blood sugar values, and
- pregnancy test.

CLERKSHIPS

Clinical pathology is incorporated into the clerkship years in several ways: 1) in didactic sessions dealing with specific disease conditions or syndromes; 2) during morning report and clinical case conferences; 3) during rounds on patients being cared for by the ward team; and 4) during the assessment and evaluation of the patients the students care for in the hospital and in ambulatory settings under the supervision of faculty and residents.

Students will be afforded many opportunities during the required year 3 and 4 clerkships to be exposed to microbiology, hematology, serology, blood bank, chemistry and cytology/histology. All clerkships will include learning objectives related to evidence-based approaches to ordering labs and integrating clinical pathology into patient care. Students can be expected to address the following topics:

- Allergy and Clinical Immunology—interpretation of immunological laboratory results
- Gastroenterology—interpretation of liver function tests and pancreatic enzyme levels
- Infectious Disease—analyzing clinical microbiology data
- Hematology/Oncology—interpreting CBCs/differentials and blood smears
- Nephrology— analyzing kidney function, GFR, urine electrolytes, protein and creatinine
- Gynecologic Oncology—histopatological diagnosis and correlates with pelvic neoplasms
- Reproductive Endocrinology—identifying laboratory aspects of reproductive endocrine and infertility care
- Pediatric Genetics—genetic testing from DNA to chromosome to protein and cell studies, interpreting molecular, cytogenetic and biochemical laboratory results and translating these results into management plans
- Clinical Medicine—perform, analyze, and interpret commonly-ordered tests such as peripheral smear, bone marrow aspiration, UA, microbiology, and various biological markers.

ED-17-A. The curriculum must introduce students to the basic principles of clinical and translational research, including how such research is conducted, evaluated, explained to patients, and applied to patient care.

The faculty should specify leaning objectives (knowledge, skills, and attitudes) that will, at a minimum, equip graduates to understand the basic principles and ethics of clinical and translational research, and how such research is conducted, evaluated, and applied to the care of patients. One example of relevant objectives is contained in Report IV of the AAMC's Medical School Objectives Project (Contemporary Issues in Medicine: Basic Science and Clinical Research).

There are several ways in which programs can meet the requirements of this standard. They range from separate required coursework in the subject, to the establishment of appropriate learning objectives and instructional activities within existing, patient-focused courses or clerkships (for example, discussing the application of new knowledge from clinical research in bedside teaching activities, offering mentored projects, or conducting journal club sessions that allow students to explore the development of application of clinical and translational research).

a. List all required courses and clerkships that include or will include formal learning objectives and/or teaching sessions that address basic principles of clinical and translational research.

SOCIETY, COMMUNITY, AND INDIVIDUAL (SCI)

Epidemiology and biostatistics represent two of the seven content threads defining this two year required course. The following topics are covered:

- Introduction to epidemiology
- Introduction to study designs I and II
- Outbreak investigations
- Alternative explanations of study results
- Descriptive one sample statistics
- Comparison of groups
- Linear regression
- Binary outcomes of an event
- Two exposure variables
- Multiple exposure variables
- Evidence-based-medicine/Integrating scientific literature.

SCHOLARLY ACTIVITY AND RESEARCH PROGRAM (SARP)

This curriculum component provides medical students an opportunity to design and execute an independent scholarly project under the guidance of a faculty mentor. A variety of topics and research areas are available in three broad categories, allowing for a project to be tailored to a student's background and interests: 1) basic, clinical, and translation research; 2) epidemiology, community-based, behavioral, public, and environmental health; and 3) medical humanities, qualitative research, and medical education research. This is a mandatory curriculum requirement, with one independent study credit awarded for selection of a mentor and preparation of a Project Plan, one credit for execution of the

project itself, and a final credit awarded for a poster summarizing the project presented at an annual student symposium held in the fall. Students can choose between one of two tracks: Track 1 concentrates execution of the project into the summer between the first and second year with a poster presented in the fall of the second year; whereas Track 2 provides the student more flexibility, allowing execution of the project anytime during the first 3 years followed by a poster presentation at the next student symposium. For both Tracks, selection of a mentor and preparation of a Project Plan is due at the end of the first year.

b. For each course and clerkship listed, briefly summarize how student achievement of those objectives and that content is or will be evaluated.

SOCIETY, COMMUNITY, AND INDIVIDUAL (SCI)

Attainment of learning objectives related to epidemiology and biostatistics in the SCI course is assessed by multiple choice examination utilizing USMLE style questions designed to measure students abilities to apply their knowledge in solving clinical or population-based problems. The Year 1Comprehensive End of Year Examination is based on the NBME customized examination service and will include questions related to epidemiology, biostatistical principles and interpretation of clinical trial results. This will enable us to benchmark our student performance against a national sample.

Performance on biostatistics, epidemiology and interpretation of clinical trial results items on Step 1 of the USMLE will also be monitored to assess how well our curriculum is preparing students in these areas.

SCHOLARLY ACTIVITY AND RESEARCH PROGRAM (SARP)

As described, this is a 3-credit independent study course. The evaluation processes for each of the three 1-credit components are as follows:

1. **Project Plan.** The student and a mentor submit a two part Project Plan. Part 1 is due in mid-April and will consist of a project title, a selection of execution mode (Track 1 or Track 2) and represents a commitment of both student and mentor. Part 2 is due in late May and will consist of a detailed description of the execution portion of the project, including timeline and goals. The Project Plan will be reviewed by the program directors and an oversight committee consisting of 6 faculty. Appropriate adjustments to the Project Plan are suggested to the student and mentor prior to final approval.
2. **Execution.** For Track 1 students, the execution phase is 7 weeks in June and July between MS1 and MS2. A one page progress report is required at the halfway point containing a rubric filled out by the mentor along with a short commentary and a paragraph written by the student describing the project's progress and attainment of specific goals, etc. Track 2 students are required to submit a progress report every 6 months. At the end of the execution phase for both Track 1 and Track 2, students submit a final report, similar to the progress report, but containing extended narrative about project accomplishments. The progress and final reports is examined by the program directors and the oversight committee, again with appropriate adjustments suggested to the student and mentor prior to final approval.
3. **Poster Presentation.** The final credit is awarded for a poster presentation of the project at a student symposium held each fall. Judging of the poster will be completed by the program directors and the oversight committee using a rubric. Criteria for evaluation will include clarity of the project description, thoroughness of the analysis and conclusions, and demonstrated understanding of basic principles in response to questions from the judging panel.

Also see Standard ED-10.

ED-18. The curriculum must include elective courses to supplement required courses.

While electives permit students to gain exposure to and deepen their understanding of medical specialties reflecting their career interests, they should also provide opportunities for students to pursue individual academic interests.

a. Indicate the number of weeks of elective time that are or will be available in each year of the curriculum.

Year	Total Weeks of Elective Time
1	0
2	0
3	8 (Selectives)*
4	16

*Students will be given subspecialty "selective" opportunities during their year 3 rotations to enable them to begin exploring sub disciplines of interest in more depth earlier in their clinical training.

Internal Medicine (2 weeks)

- Allergy/Immunology
- Cardiology
- Dermatology
- Endocrinology
- Gastroenterology
- Geriatrics
- Hematology/Oncology
- Infectious Diseases
- Nephrology
- Ophthalmology (Medical)
- Physical Medicine and Rehabilitation
- Pulmonology
- Radiation Oncology
- Rheumatology

Surgery (four weeks)

- Anesthesiology
- Dermatology
- ENT
- Ophthalmology (Surgical)
- Orthopedics

- Pain Management
- Pediatric Surgery
- Trauma
- Urology

Family Medicine (15 half days—Longitudinal Selective)

- Community Medicine
- Prenatal Care
- Chronic Illness Care
- Geriatrics
- Sports Medicine
- Complementary Medicine

Psychiatry (15 half days—Longitudinal Selective)

- Child/Adolescent
- Consultation/Liaison
- Geropsychiatry
- Sleep Medicine
- Psychotherapy
- Clinical Research Interviewing

b. Indicate if there is policy that specifies: 1) the maximum number of weeks of elective time that students may take at another institution or 2) the maximum number of electives that students may take in the same specialty area, either at the medical school or at another institution. If so, what are the limits?

We are committed to encouraging students to use their elective time to broaden their experience base and to explore the breadth of medicine. Our goal is to graduate generalist physicians who are well rounded and well prepared to pursue the specialty of their choice for residency training.

Twelve weeks is the maximum number of weeks of elective time a student may take at another institution.

A student may take no more than 2 electives in the same specialty area.

ED-19. There must be specific instruction in communication skills as they relate to physician responsibilities, including communication with patients, families, colleagues, and other health professionals.

Describe where in the curriculum (specific course or clerkship) students gain or will gain experience in the following areas. Specify the settings where instruction occurs/will occur (e.g., classroom, clinical) and the format(s) that are or will be used (e.g., lecture, small group, standardized patient, role play, etc.).

The following Institutional Learning Objectives (see ED-1-A) relate to the communication competencies we expect our students to demonstrate.

Interpersonal Communication Skills
Communicate clearly, respectfully and compassionately with patients, families, colleagues, and members of the health care team (ICS-1)
Collect and record pertinent elements of the clinical history in a concise and accurate manner (ICS-2)
Communicate knowledge, interpretation and recommendations orally and/or in writing to a wide range of professional or lay audience in culturally appropriate ways (ICS-3)

a. Communicating with patients and patient families

PRE-CLERKSHIP CURRICULUM

Society, Community, and Individual (SCI)

Communication skills with patients and families are an important component of SCI. This is accomplished as follows:

1. Nearly 80% of the population of El Paso is Hispanic and a majority of this population speaks Spanish as their preferred language. Consequently, we include Spanish (conversational and medical Spanish) as a required component of the curriculum. Students are assigned to ability groups based on self-reported comfort with Spanish and a brief oral assessment. The first 3 weeks of the M1 school year is devoted primarily to a "mini-immersion" experience in the language and culture of the Texas-Mexico border. During this period, students spend 4 hours per day in Spanish instruction in a small group format. Instruction in conversational and medical Spanish is provided every other week in two-hour sessions throughout years 1 and 2 as part of SCI.
2. Host/Mentor Family Program—as part of SCI, student pairs are assigned to a family in the community. Students are required to complete at 3 home visits with their family. In the first they elicit information about the composition of the family, ages, relationships, occupations, etc and they construct a 3 generation genogram. In the second visit, students elicit information on the health status of family members, illness experiences, perceptions about access to care, and other information. In the third visit, students elicit information about health and illness beliefs and attitudes and utilization of complementary and alternative treatments and practitioners.
3. Community Clinic Experience—students are assigned to community clinics throughout the greater El Paso region and are required to spend 8 half days per academic year in those settings.

During these sessions students are given an opportunity to interact with patients and to practice interviewing and physical examination skills that they learn in Medical Skills.

Medical Skills

The development of communication skills is a major component of the Medical Skills Course. Medical students see standardized patients on a regular basis throughout the course and instructional objectives on communication skills are included in these sessions. Examples of the specific communication skills covered during these sessions includes opening the session, the use of open-ended and focused questions, nonverbal communication, delivering bad news, responding to emotions, facilitating behavioral change, and providing closure at the end of the interaction.

REQUIRED CLERKSHIPS

Communication skills are a threaded component for all clerkships. All clerkships include an assessment of students skills at communicating with patients and their families as part of the mid- and end of clerkship evaluation. Furthermore, communication skills are assessed in the end of third year OSCE that all students are required to take and pass.

b. Communicating with physicians (e.g., as part of the medical team)

PRE-CLERKSHIP CURRICULUM

Medical Skills

During the Medical Skills Course, sessions are periodically conducted in which the medical students practice formal case presentation to an attending physician. In addition, a session is planned in which the medical student practices communication with the consultant over the telephone.

Society, Community, and Individual (SCI)

Students are required to discuss the patients they see in the community clinic setting with their preceptors. This permits the student to begin a professional dialogue with experienced physician mentors and teachers.

Masters Colloquium

The development of effective overall communication skills is a principal goal of the Masters Colloquium. Three sessions early in the curriculum focus specifically on effective communication. Furthermore, the entire course is taught through student-centered instructional methods that include large and small group facilitated discussion, presentations to the larger group, readings, role plays, break out small group assignments, and reflective writings. Effective communication skills are practiced in virtually every session of the Colloquium.

REQUIRED CLERKSHIPS

Student presentation skills are assessed in each of the required clerkships. In addition, as a component of professionalism assessment, residents and attending physicians who work with students in the clerkships provide feedback on their perceptions of student communication skills with members of the ward team.

c. Communicating with other (non-physician) health professionals

PRE-CLERKSHIP CURRICULUM

Society, Community, and Individual (SCI)

Several learning activities have been developed, as part of the community clinic experience, to expose students to the roles and responsibilities of various members of the health care team including nursing assistants, nurses, billing clerks, social workers, pharmacists, dentists, and lay community health outreach workers.

Medical Skills

A session is planned for later in year 2 in which medical students will practice communication skills with nursing staff.

REQUIRED CLERKSHIPS

As part of the assessment of student performance in the required clerkships, students are evaluated on their communication skills with non-physician members of the health care team. This is regarded as an important component of professionalism and is assessed as such.

See also information for standards ED-10 and ED-28.

ED-20. The curriculum must prepare students for their role in addressing the medical consequences of common societal problems, for example, providing instruction in the diagnosis, prevention, appropriate reporting, and treatment of violence and abuse.

a. Indicate where in the curriculum students learn or will learn about the medical consequences of common societal problems.

The Paul L. Foster School of Medicine is situated in a border community which has a number of serious and complex socioeconomic problems. This also creates many opportunities to learn about the health consequences of these problems. Societal problems include poverty, obesity, substandard primary and secondary education, limited access to higher education, domestic and gang-related violence, substance dependence, and illegal immigration. Many of these problems are highlighted and addressed throughout the curriculum with the goal of graduating clinicians with sensitivity and heightened awareness to these issues and the skill sets necessary to practice optimally within the region.

SOCIETY, COMMUNITY, AND THE INDIVIDUAL — In the SCI course, community relationships provide the basis for studying factors that contribute to community health related issues. Instruction occurs in the classroom and in community-based clinics. Learning formats include direct patient care, community and home visits, community needs assessments, intervention projects, and community outreach activities. Issues related to the family and the role of the family in health, illness, and coping are highlighted in this course. One session in year 2 is devoted to family dysfunction, including domestic violence and abuse of vulnerable individuals. Opportunities are provided for students to visit community agencies dedicated to preventing domestic violence and to caring for those who are victims of domestic violence (see 'b' below).

SCIENTIFIC PRINCIPLES OF MEDICINE — Unit 8 of the SPM course, The Mind and Human Development, is offered in the second year of the curriculum, and addresses substance abuse and suicidal behavior.

MASTERS' COLLOQUIUM — This course addresses a wide range of topics, including the art of medicine, ethics, and the social responsibilities of the physician. This course considers broader societal and behavioral issues and their role in the health care of the individual and their communities. The instructional format includes oral presentations, group discussions, documentary films, and selected readings.

Topics covered during the Masters Colloquium include several important common societal problems. These include:

- Domestic violence is included in the discussion on informed consent.
- The issue of limited access to healthcare is covered during the discussion on cultural diversity.
- Issues of access to healthcare, exclusion of pre-existing illness, and lack of lack of health insurance are covered in a session on the US health care system.
- Issues related to geriatric care are covered in a session on the aging US population.
- Issues related to gender disparities in healthcare is covered in a session on gender issues in medicine

MEDICAL SKILLS — Several sessions of the course focus on communication and counseling skills in the setting of several common societal problems. These problems include abnormal weight gain and obesity, substance abuse and drug dependence, suicidal behavior and prevention, and domestic violence.

b. List the required courses and clerkships that cover or will cover the following aspects of domestic violence and abuse (see Glossary at the front of this section for definition).

Content area	Required course(s) where topic is addressed	Required clerkship(s) where topic will be addressed
Diagnosis	Medical Skills Society, Community & Individual	Family Medicine Internal Medicine Pediatrics OB-GYN Psychiatry Emergency Medicine
Prevention	Society, Community, & Individual	Family Medicine Internal Medicine Pediatrics OB-GYN Psychiatry Emergency Medicine
Reporting	Medical Skills Society, Community & Individual	Family Medicine Internal Medicine Pediatrics OB-GYN Psychiatry Emergency Medicine
Treatment	Society, Community & Individual	Family Medicine Internal Medicine Pediatrics OB-GYN Psychiatry Emergency Medicine

See also information for standard ED-10.

ED-21. The faculty and students must demonstrate an understanding of the manner in which people of diverse cultures and belief systems perceive health and illness and respond to various symptoms, diseases, and treatments

All instruction should stress the need for students to be concerned with the total medical needs of their patients and the effects that social and cultural circumstances have on their health. To demonstrate compliance with this standard, schools should be able to document objectives relating to the development of skills in cultural competence, indicate where in the curriculum students are exposed to such material, and demonstrate the extent to which the objectives are being achieved.

a. Indicate where in the curriculum students learn or will learn about issues related to cultural competence in health care. Note whether the instruction occurs through formal teaching, exposure in the clinical setting, or both.

PRE-CLERKSHIP CURRICULUM

The knowledge, attitudes, behaviors, and skills necessary to provide culturally appropriate patient care are emphasized in the following courses during the first and second years of the curriculum:

Society, Community, and the Individual (SCI) —The SCI course is designed to take students from the classroom into the community to teach them about the relationships among social issues, community factors, and individual health. The course considers how ethnic factors, cultural factors, and belief systems in the underserved communities influence residents' perception of health and illness; their access to health care services; and their response to various symptoms, diseases, and treatments. Instruction occurs in the classroom and in community-based clinics. Teaching formats include lectures, discussion, direct patient care, community and home visits, community needs assessments, intervention projects, and community outreach activities. In addition to over 150 hours devoted to Spanish language instruction, the following sessions are explicitly related to cultural competence is part of this course:

- Mexican-American Culture on the US-Mexico Border (lecture)
- What is Culture and Why Does it Matter? (small group discussion)
- Complementary, Alternative, and Folk Medicine (lecture)

Medical Skills—in this course, students are taught and reminded to employ communication skills designed to elicit the patient's perspective on his or her health and illness concerns. These perspectives are rooted in the cultural traditions informing patient attitudes, beliefs, expectations, and normative behaviors. Among the skills that are taught over the two years of this course are the following: use of open-ended questions, empathic responding, active listening, elicitation of the patient's lay explanatory model, and elicitation of information about the patient's use of alternative practitioners and remedies. Most of the instruction in Medical Skills is done through role play utilizing standardized patients.

Masters' Colloquium—the Paul L. Foster School of Medicine is situated in a border community, and is responsible for serving a distinctly bicultural community. Most of our students are recruited from throughout the State of Texas and come from diverse ethnic backgrounds—Asian, South Asian, Anglo-American, Middle Eastern, etc. This provides ample opportunities for formal and informal discussions of the role of cultural background on beliefs, values, expectations and worldview in health and illness.

See also information for standard ED-10.

CLERKSHIP CURRICULUM

As documented in ED-10, these issues will be addressed explicitly in several of the required clerkships in years 3 and 4. Students will also have many opportunities to learn from their clinical experience and opportunities will be provided for students to reflect on this experience.

b. How will students' acquisition of the knowledge, skills, behaviors, and attitudes related to cultural competence be assessed?

Knowledge related to cultural competency is assessed through multiple choice questions utilizing USMLE style clinical vignette in the SCI course.

Skills and behaviors is assessed by standardized patients in the Medical Skills course and through the assessment of communication skills necessary for providing culturally appropriate care in Year 1, 2, and 3 OSCEs.

Attitudes are assessed through observation and feedback from preceptors in the community clinics where students receive early clinical experience during the first two years of study, and by the residents and attending faculty who work with students in the year 3-4 clerkships. A longitudinal survey is also administered yearly throughout the 4 year curriculum. This survey includes a validated instrument on attitudes toward cultural issues in medicine. The results of this survey will provide us with data on any shifts in attitude that may occur over the course of study.

See also information for standard ED-10.

ED-22. **Medical students must learn to recognize and appropriately address gender and cultural biases in themselves and others, and in the process of health care delivery.**

The objectives for clinical instruction should include student understanding of demographic influences on health care quality and effectiveness, such as racial and ethnic disparities in the diagnosis and treatment of diseases. The objectives should also address the need for self-awareness among students regarding any personal biases in their approach to health care delivery.

a. Describe where in the curriculum (in formal teaching sessions and/or indirectly through clinical experiences) students receive or will receive instruction addressing the following topics:

1. Demographic influences on health care quality and effectiveness (including racial or ethnic disparities in health care delivery).

PRE-CLERKSHIP CURRICULUM

Society, Community, and the Individual—students learn about demographic influences on health care quality and effectiveness in these communities. Instruction occurs in the classroom and in community-based clinics and other community agencies and organizations. Teaching formats include lectures, discussion, direct patient care, community and home visits, community needs assessments, intervention projects, and community outreach activities.

Scientific Principles of Medicine—students learn about racial, gender, and ethnic disparities in the diagnosis and treatment of diseases as relevant to the specific topic or body system addressed in the unit. When appropriate, gender and cultural biases associated with specific clinical presentations are also addressed. For example, during the cardio-pulmonary unit, students are made aware of common gender biases in the diagnosis and treatment of women with chest pain and cautioned against managing women with chest pain less aggressively than they would men with chest pain. In SPM units, instruction takes place primarily in classroom and laboratory and teaching formats include lectures and small-group clinical correlation sessions.

Medical Skills—As noted in ED-2, this course covers the concepts, skills, attitudes, and behaviors required to become culturally aware communicators who exhibit compassion and respect to all patients, without regard to race, ethnicity, gender, financial situation, social condition, or incapacity. After being introduced to this information in lecture format in the classroom and through instructional videos produced by the American Academy on Communication in Health Care (see www.doc.com), students will have the opportunity to practice culturally competent communication with standardized patients in the clinical simulation center.

Masters' Colloquium—this course augments students' understanding of demographic influences on health care quality and effectiveness, including racial or ethnic disparities in health care delivery, by considering these issues from national and international perspectives. Students also have the opportunity to talk with the college masters about specific concerns or questions they have regarding gender and cultural biases in health care. Instructional formats include oral presentations, group discussions, and an reflective exercises.

CLERKSHIP CURRICULUM

As a medical school located on the US Border with Mexico and with a population that is heavily Hispanic, students who are drawn from throughout the State of Texas students will have many "indirect" opportunities to learn about demographic influences on health, health care delivery, and access to care

during the clerkship years. Efforts will also be made to provide direct opportunities for students to explore the implications of socio-demographic, ethnic, and gender issues in patient care and community health. Several of the "threads" that are woven into years 3-4 (see schematics in ED-5) are relevant to these issues including—ethics, professionalism, and communication skills. For each clerkship block, one half day a week is being set aside for didactic activities. A number of curriculum design teams for years 3-4 are currently involved in the planning of that portion of the curriculum. These design teams each include representation from the college masters. One expectation shared with the design teams is that opportunities will be provided for the Colleges to "reassemble" with their Masters periodically during the third and fourth year.

2. Student self-awareness of their own biases.

As students develop an understanding of the demographic influences on health care quality and effectiveness in their courses, they will have opportunities to develop greater self-awareness of their own biases, particularly in the Masters Colloquium and during their clinical years. The goal of the Masters Colloquium is *"to promote critical thinking and reflective mindfulness in discourse and decision making, respectfulness, empathy, and integrity in relations with others, and engaged, responsible citizenship in the community."* An explicit goal of the Masters Colloquium is the development of each student's self objectivity by eliciting opinions and perspectives on a range of topics. This is done in an atmosphere of openness and non-judgmental consideration of each person's point of view, so as to model diplomacy, open discussion of ideas, and self-objectivity. Reflective exercises provide students opportunities to critically reflect upon their own personal world views and deeply held beliefs and to explore the potential implications of these beliefs for patient care. Opportunities will be provided in years 3-4 for students to continue this reflective process as sessions with the college masters will be scheduled as part of the integration threads woven throughout the clerkship years.

Also see information for standard ED-10.

ED-23. A medical school must teach medical ethics and human values, and require its students to exhibit scrupulous ethical principles in caring for patients, and in relating to patients' families and to others involved in patient care.

Each school should assure that students receive instruction in appropriate medical ethics, human values, and communication skills before engaging in patient care activities. As students take on increasingly more active roles in patient care during their progression through the curriculum, adherence to ethical principles should be observed and evaluated, and reinforced through formal instructional efforts.
In student-patient interactions there should be a means for identifying possible breaches of ethics in patient care, either through faculty/resident observation of the encounter, patient reporting, or some other appropriate method.
"Scrupulous ethical principles" imply characteristics like honesty, integrity, maintenance of confidentiality, and respect for patients, patients' families, other students, and other health professionals. The school's educational objectives may identify additional dimensions of ethical behavior to be exhibited in patient care settings.

a. Identify each course in the pre-clerkship curriculum that includes an explicit educational objective that students gain an understanding of ethical issues and human values.

PRE-CLERKSHIP CURRICULUM

Orientation Period

The Paul L. Foster School of Medicine (PLFSOM) is committed to providing educational experiences designed to highlight for students their ethical obligations as developing members of the medical profession and to examine the human values that underlay medicine as a service calling. We introduce students to medical oaths during orientation and charge the class to write their own oath articulating their shared values and commitments to themselves, the faculty, and the patients from whom they will learn. The development of this oath is a cooperative exercise and involves the entire class working in small groups and then through representatives across groups, and finally culminating in a class meeting where a consensus is achieved about the content and wording of the oath. This oath is then read as part of the White Coat Ceremony marking the students' transition into medical school and the profession. (See example Oaths in Section II, Appendix 8a-b).

Society, Community and the Individual (SCI)

Human values and issues related to ethics are addressed in a number of components of the SCI program. The community thread addresses issues related to social justice through its emphasis on access to care and health care disparities; the family thread includes sessions on family violence and the obligation of health care professionals to identify and report suspected abuse or neglect to the appropriate authorities; the culture thread encourages students to adopt a stance of cultural humility and curiosity and provides instruction on strategies to elicit the patient's perspective on their illnesses and the impact of the illness on the patient and the patient's family; the environmental and occupational thread addresses issues related to the health effects of contaminants and pollution points to the relationship between social and environmental justice.

Medical Skills

The Medical Skills Course reinforces the organizational goals related to ethical conduct and human values through the application of these principles in patient simulations and in interactions during small group instruction. All students receive orientation to the HIPAA rules at the beginning of the course, and the confidentiality of patient information is promoted and modeled throughout the course. Instructional objectives for each standardized patient encounter include the goal of setting a positive provider-patient interaction. Instructional objectives are included that address topic-specific communication skills such as effective strategies for counseling regarding childhood vaccinations (advocacy for the health of children), strategies for functional geriatric assessment (advocacy for the safety and security of the aged), diplomacy in delivering bad news (compassionate support of those with potentially life-threatening illness), and nonjudgmental interview techniques for those with sexually transmitted infections and substance dependence (nondiscrimination of individuals with potentially socially stigmatizing behaviors).

Masters Colloquium

The emphasis of this course is on professionalism, human values, controversies in medicine, and medical ethics. The Masters Colloquium devotes twelve sessions to ethical issues. Each session includes a preparatory reading assignment, a presentation of background information, presentation of cases, and facilitated discussion and case analysis. The list of topics follows:

- Introduction to Medical Ethics
- Confidentiality
- Informed consent and decision-making capacity
- Ethical issues in intensive patient care, palliative care and pain management, end of life/hospice care
- Ethics of life sustaining interventions and the persistent vegetative state. Determination of death
- Ethics of refusal to care for patients and refusal of treatment by patients/Assisted suicide/Dying
- Ethics of healthcare distribution, economics, and reform
- Research ethics
- International research and health ethics
- Ethics of conflicts of interest
- Ethical issues in genetic diagnosis, screening- confidentiality, insurance, etc.
- Complimentary & Alternative Medicine
- Drug companies and hospitals
- Medicine and human rights
- Gender issues in medicine

b. Provide examples of any evaluation instruments used to assess the acquisition or demonstration of ethical behavior in the preclinical curriculum. How and from whom is information about student ethical behavior collected?

In the **Scientific Principles of Medicine** course (SPM) and in the **Society, Community, and the Individual** (SCI) course, students participate in small group sessions that gives faculty an opportunity to observe student interactions and small group behaviors. We have developed an assessment form that

includes items on respectful interactions with peers and faculty, the willingness of a student to admit lack of knowledge or preparation, and the student's willingness to withhold judgment on others regardless of culture and lifestyle.

In the community clinic experience in **SCI**, preceptors assess students through the use of a rating form that provides feedback on several dimensions of ethical behavior. First, it specifically asks about respect in the form of communication and conduct ("respects beliefs, rights, roles, abilities, and values of patient, staff and preceptor"). Second, the preceptors assess student behavior on four dimensions of ethical behavior: maintains confidentiality, maintains professional boundaries, honest, and behaves with equity to all patients. The student uploads these forms into their e-portfolios where they are reviewed by the SCI course director.

The **Masters Colloquium** includes summative assessment of knowledge of bioethics. This assessment is performed using scenario-based, multiple-choice questions. In addition, one assignment is to write a conflict of interest reflective paper. Papers are reviewed, commented on, and graded by the Master.

In the event that a course director identifies a breach of ethics, the course director will consult with the associate dean for student affairs. The associate dean will determine if the breach is part of a pattern across courses, conduct an inquiry if necessary, refer serious breaches to the Grading and Promotions committee, and ensure that the involved student(s) receives counseling. If the event is deemed minor and does not extend across courses, the course director or the student's college master may provide the counseling. For patterns of behavior, the associate dean for student affairs will provide the counseling.

Copies of the small group rating form and of the SCI preceptor student assessment form can be seen in Section II, Appendix 9a & b.

c. How will student ethical behavior be assessed in the clinical years?

Ethical conduct will be assessed primarily by observation and feedback from faculty attending and residents working closely with the students during the clinical phases of the education program. This feedback on ethical and professional behavior is provided using the clerkship evaluation professionalism form. This form includes items on honesty, ethical principles, conflict of interest avoidance, compassion, respect, confidentiality, and ability to admit lack of knowledge. These forms are completed by supervising physicians and residents. At least twice each rotation, the clerkship director reviews the forms and provides the student with feedback and counseling on his/her performance in the areas of ethics and professionalism. The clerkship director will also make a determination as whether any ethical lapse should be addressed by the associate dean for student affairs. The clerkship performance rating form that will be completed on each student by faculty attending and residents will include a component on professionalism including ethical conduct. The director of assessment and evaluation is working with the clerkship directors in developing this assessment tool. The current draft of this instrument can be seen in Section II, Appendix 10.

See also information for standard ED-10.

ED-24. Residents who supervise or teach medical students, as well as graduate students and postdoctoral fellows in the biomedical sciences who serve as teachers or teaching assistants, must be familiar with the educational objectives of the course or clerkship and be prepared for their roles in teaching and evaluation.

The minimum expectations for achieving compliance with this standard are that: (a) residents and other instructors who do not hold faculty ranks (such as graduate students and postdoctoral fellows) receive a written copy of the course/clerkship objectives and clear guidance from the course/clerkship director about their roles in teaching and evaluating medical students; and (b) the institution and/or relevant departments provide resources such as written materials and/or workshops to enhance the teaching and evaluation skills of all residents and other non-faculty instructors. There should be central monitoring of the level of resident/other instructor participation in activities to enhance their teaching/evaluation skills. The LCME encourages formal assessment of the teaching and evaluation skills of residents and other non-faculty instructors, with opportunities provided for remediation if their performance is inadequate. Assessment methods could include direct observation by faculty, feedback from students through course/clerkship evaluations or focus groups, or any other suitable method.

a. Describe where in the educational program residents teach or will teach or supervise medical students.

Graduate students are not involved in medical student teaching in the first two years.

Residents play a relatively limited role in the education of medical students in the pre-clerkship years. A select group of residents *may* be asked to assist faculty in SPM clinical correlation worked case example sessions under faculty supervision. Residents are also involved, again under faculty supervision, in selected emergency simulation exercises as part of the Integration of Systems unit in year 1 of SPM. Residents participating in these activities are given materials in advance describing the learning objectives and the instructional techniques. They also meet with the faculty member who is responsible for the learning activity to review their roles. Postdoctoral fellows at affiliated institutions may assist faculty to mentor medical students during their Scholarly Activity and Research Program requirements. Clear expectations are communicated to residents and postdoctoral fellows regarding their roles and responsibilities. Residents and Fellows are held to the same standards as faculty regarding respectful treatment of students and these standards are shared with the resident or postdoctoral fellow prior to participation in the educational program.

Residents will be extensively involved in all required third and fourth year clerkships. Each clinical department, through the clerkship director, is responsible for orienting residents to the goals, objectives, and expectations of the clerkship, including those related to the learning environment. The clerkship director is also responsible for orienting residents to their responsibilities in assessing student performance.

b. Describe any institution-level programs that are in place or being developed to enhance the teaching and evaluation skills of graduate students, postdoctoral fellows, or residents who teach or supervise medical students. If such programs are the same as those provided for faculty, indicate that fact and refer to the response for standards FA-4 and FA-11 in Section IV: Faculty.

The associate dean for graduate medical education, working in conjunction with the associate dean for faculty affairs and development has developed an enhanced version of Residents as Teachers Program.

This program includes basic instruction on teaching skills (e.g., bed-side teaching, One-minute preceptor model), assessment (including skills for giving effective feedback), and expectations regarding student-resident relationships and the learning environment. This program is based on materials previously designed for community and full time faculty and on an earlier version of a "Residents as Teachers" program. The newer version of this program also includes instruction on the "clinical presentation" model that we employ in the pre-clerkship the curriculum, so that residents will be familiar with prior student experience. Participation in this program will be mandatory and is slated to begin in January 2011.

See also the Required Course Forms and Required Clerkship Forms.

ED-25. Supervision of student learning experiences must be provided throughout required clerkships by members of the medical school's faculty.

a. Describe how the school will assure that students will be appropriately supervised during required clinical clerkships.

The clerkship director is ultimately responsible for assuring that students are adequately supervised during each of the required year 3 and 4 experiences. During the inpatient components of their clerkships, students will be assigned to a resident team led by attending physicians. The faculty attending will be directly responsible for student supervision. Some level of supervision will also be delegated to the senior resident. In the ambulatory components of the clerkship, supervision will be the responsibility of the faculty attending physician. Faculty supervision includes the following activities:

- Direct observation of student interactions with patients to assess history taking and physical examination skills;
- Assessment of clinical reasoning based on oral presentations during rounds and reviews of patient write-ups;
- Frequent formative feedback based on observation and oral and written assessments;
- Completion of an on-line student assessment form for review by the clerkship director and incorporation into the student's clinical assessment grade. (A copy of this form can be found in Section II, Appendix 11.

b. List any required clerkships where students may be supervised by physicians who are not medical school faculty members (do not include residents/fellows). What steps are being taken to provide faculty appointments to those physicians who will participate as teachers/supervisors in required clinical clerkships?

Students will not be supervised by non-PLFSOM faculty members in the required components of years 3 and 4.

ED-26. The medical school faculty must establish a system for the evaluation of student achievement throughout medical school that employs a variety of measures of knowledge, skills, behaviors, and attitudes.

Evaluation of student performance should measure not only retention of factual knowledge, but also development of the skills, behaviors, and attitudes needed in subsequent medical training and practice, and the ability to use data appropriately for solving problems commonly encountered in medical practice.

Schools are urged to develop a system of evaluation that fosters self-initiated learning by students. The system of evaluation, including the format and frequency of examinations, should support the goals, objectives, processes, and expected outcomes of the curriculum.

a. Describe how the medical school ensures or will ensure that the methods used to evaluate student performance are appropriate to achieve its institutional and course- or clerkship-specific objectives. Note any role played by the curriculum committee or other curriculum management group.

The senior associate dean for medical education is responsible for ensuring that appropriate methods are used to assess student performance and that these methods are appropriate to institutional, course, and clerkship objectives. He heads the Office of Curriculum, Evaluation, and Accreditation (OCEA), which includes staff members with expertise in curriculum design, student assessment, and program evaluation. These individuals are available to assist faculty in the development of assessment methods and the interpretation of assessment and evaluation outcomes. Faculty input on assessment and evaluation is provided through the Evaluation Committee. This committee is chaired by the director of assessment and evaluation in OCEA and the senior associate dean is an Ex-Officio member. This is a standing committee of the Curriculum and Educational Policy Committee.

OCEA, working in cooperation with the Evaluation Committee is responsible for the following:

- Recommending methods of assessment for particular courses
- Training faculty in the principles of evaluation, including validity, reliability, item writing, item analysis, development of examination blue prints, and scale construction
- Ensuring that examination questions are congruent with the learning objectives approved by the Curriculum and Educational Policy Committee
- Helping course directors evaluate the quality of specific examination questions based on item statistics
- Providing direction to faculty in response to student appeals regarding specific questions or entire examinations
- Reviewing examination and evaluation results, especially noting reliability and validity

SCIENTIFIC PRINCIPLES OF MEDICINE COURSE

Development of Assessment Items: Each student assessment, whether formative or summative, is developed by faculty members who have direct responsibility for teaching in specific course or SPM unit. Evaluation items are directly linked to the stated educational objectives of the course or unit through the Ilios curriculum management system. Items are prepared in advance of the scheduled evaluation in order to permit careful review of items for content and construction. We began development of our question item bank in December of 2008 with a series of workshops on examination writing methods for faculty who participate in the development of instructional materials. These workshops were conducted by a representative from NBME, Dr. David Swanson, and by Dr. David Steele, Senior Associate Dean for

Medical Education. Dr. Steele has served on a USMLE Step I test development committee for the NBME. Question items developed by the faculty are subjected to peer review. Initially, items are vetted by a designated item writing committee composed of MD and PhDs from the Department of Medical Education with differing discipline expertise. Next, the course director and the senior associate dean for medical education evaluate the questions. After each stage in the vetting process, the author of the item(s) in question are consulted about modifications. No items enter the question bank until they are judged to be of sufficient quality. The question bank is updated regularly.

Validation of Examinations: OCEA provides regular and timely reports of examination results, including a statistical analysis and assessment of the validity of each examination item. This information is reviewed by the course director and by the faculty members responsible for teaching the course or unit.

Aggregate student performance as assessed by course or unit summative assessments are shared with the Curriculum and Educational Policy Committee as a required component of the feedback provided by the course director at the conclusion of his/her course or unit.

MEDICAL SKILLS COURSE

Comprehensive summative examinations are administered at the end of each SPM unit. These examinations consist of OSCEs, SOAP notes and standardized patient evaluations. These examinations are designed to evaluate students' proficiency in specific clinical skills including history-taking, physical examination, use of diagnostic instruments, performance of medical procedures and the integration of the systems-based knowledge acquired in preceding SPM units. A formative assessment of students' progress in the acquisition of clinical skills is also performed weekly during the Medical Skills session using similar evaluation methods. In addition each week, student/standardized patient encounter are video-recorded. These recordings are used in formative evaluations to assess the student's knowledge, skills, behaviors, and attitudes acquired in the Medical Skills course.

SOCIETY, COMMUNITY AND THE INDIVIDUAL

The procedures described above for the SPM are followed by this course in assessing students knowledge. Students' encounters with patients from community clinics are also formally evaluated by supervising clinic physician and the SCI course director. Evaluation of students' clinical skills consists of faculty rating (using a checklist) and evaluation of students' clinical notes. (See ED-28 for an example SCI checklist.)

MASTERS COLLOQUIUM

In this course students are required to write brief reflective papers on issues related to professionalism. These papers are assessed by the college masters utilizing rubrics to ensure consistency. Example rubrics can be found in Section II, Appendix5 a -b. The college masters also generate multiple choice questions to assess student knowledge of ethical principles. They too follow the steps described for the SPM course in developing these assessment items.

b. Describe how the scheduling of examinations in the preclinical years is determined.

The medical school faculty believes that frequent evaluation of students, coupled with timely and pertinent feedback and corrective action, is an essential component of the curriculum; and that effective evaluation encourages student achievement. With this in mind, the PLFSOM evaluation system incorporates weekly formative exams and summative examinations at the end of each course or SPM unit.

The summative examination schedule in the pre-clerkship years is determined by course schedule. Summative exams occur approximately every 5-10 weeks. There are 5 summative exams in year 1 and 4 summative exams in year 2. The Curriculum and Educational Policy Committee reviews and approves the yearly schedule.

c. Include a copy of any standard form(s) used by faculty members or resident physicians to evaluate students in small group settings during the preclinical years.

Small group facilitators complete an assessment form on each student at the conclusion of each small group that solicits information on the following: student participation, demonstrated level of preparation, ability to apply learning, and respect for faculty and peers. (please see below).

See also required Courses and Clerkships, Part A, item (B).

See also required Courses, Part A, item (B.).

ED-27. There must be ongoing assessment that assures students have acquired and can demonstrate on direct observation the core clinical skills, behaviors, and attitudes that have been specified in the school's educational objectives.

a. Is there a core list of clinical skills/behaviors that students must master? (check)

X	Yes, as part of the institutional educational objectives
X	Yes, as a separate list being developed for each required clinical clerkship
	No (please explain if checked)

b. List any OSCEs or standardized patient evaluations administered to students in the first two years of the curriculum, and indicate when these occur. For each, indicate if the purpose of the examination is formative (to provide feedback to the student) or summative (to inform decision-making about academic progression or graduation).

Students work with standardized patients in the Medical Skills course. These patients provide formative feedback on each encounter.

In years 1 and 2, students participate in four, 5-station summative OSCES each year. In each administration, 3 stations involve standardized patients and 2 stations are designed to assess procedural skills utilizing partial task trainers or human body simulators.

At the end of year 2, students participate in a 10-12 station OSCE to demonstrate their readiness to enter the clerkships in year three. Students are required to pass all stations. If significant deficiencies are discovered, students must demonstrate to the Medical Skills course director or his designee that the deficiency has been remediated before the student is certified to move on to the third year.

c. Describe any plans for the development of OSCEs for the clinical years, either as part of required clerkships or as a comprehensive assessment outside of the clerkships.

Year 3-4 Task Force "design teams" are in the process of developing the required clerkship experiences and determining how student performance will be assessed. The year 3 curriculum is organized into three-16 week blocks, each shared by two disciplines (Internal Medicine and Psychiatry, OB-GYN and Pediatrics, Surgery and Family Medicine) and in each block there are "shared topics" for integrative teaching and learning. At the conclusion of each block there will be a multiple station OSCE or observed standardized clinical examination designed to assess students clinical reasoning, physical examination, and interpersonal skills.

An end of year 3, a multi-station OSCE will be conducted to assess basic communication skills, history taking skills, and physical examination skills.

See also Required Courses and Clerkships, Part A, item (B.)

ED-28. There must be evaluation of problem solving, clinical reasoning, and communication skills.

When answering the question, limit your response to a few appropriate examples of evaluation materials that illustrate how the relevant skills are evaluated. Additional information or examples can be provided on site if requested by the survey team.

a. Provide a representative sample of the materials (written or oral exam questions, research paper assignments, problem-based learning cases, etc.) specifically designed to assess students' skills in problem solving, clinical reasoning, and communication. Indicate the courses that employ such materials.

SCIENTIFIC PRINCIPLES OF MEDICINE (SPM)

Problem solving (examples from the item databank associated with SPM Unit 3 "Dysphagia" clinical presentation):

1-A 58-year-old female is being evaluated by a gastroenterologist for dysphagia which is gradually becoming worse. An upper GI radiographic study with barium contrast demonstrates the presence of a dilated esophagus proximal to the lower esophageal sphincter (LSC). No lesions are seen within the lumen of the esophagus. Which of the following is a likely cause of the patient's symptoms?

A) Absence of myenteric plexus in the proximal esophagus

B) Absence of the myenteric plexus at the distal esophagus

C) Absence of the submucosal plexus in the body of the esophagus

D) Absence of the submucosal plexus at the lower esophageal sphincter

Answer: D

Explanation: The patient is suffering from achalasia, which is caused by the absence of normal relaxation of the lower esophageal sphincter (LES). This condition results from decreased or absent inhibitory ganglion cells in the myenteric plexus of the body of the esophagus.

Objective: Discuss the esophagus in terms of its origin, termination, sphincters, nerve supply, blood supply, and the following clinical conditions: Barrett's esophagus, Mallory-Weiss tears, esophageal stricture, dysphagia, achalasia, esophageal varices, and hiatal hernia, tracheo-esophageal fistula, and appearance on radiographs, upper GI series, MRIs and CT scans.

2-Following a neurological event of sudden onset, a 75-year-old woman develops dysphagia. The patient exhibits a loss of pain and temperature on the contralateral side of the body, and loss of pain and temperature on the ipsilateral side of the face. She also exhibits a partial ptosis, miosis, and anhydrosis of the face on the ipsilateral side. Damage to which of the following is responsible for the patient's dysphagia?

A) Facial nerve

B) Hypoglossal nerve

C) Medial lemniscus

D) Nucleus ambiguus

E) Nucleus of the tractus solitarius

Answer: D

Explanation: The patient is suffering from a lateral medullary syndrome of Wallenberg. Her stroke has damaged the nucleus ambiguus, which contains the cell bodies of special visceral efferent neurons that innervate the striated muscle of the palate and pharynx.

Objective: Discuss the lesions of the central and peripheral nervous system pertinent to dysphagia. Discuss the lateral medullary syndrome in terms of dysphagia. Discuss the medial medullary syndrome in terms of tongue function

Clinical Reasoning (examples from the item databank and the worked case example session associated with SPM Unit 3 "Dysphagia" clinical presentation):

3-A 55 year old male has been previously diagnosed by his gastroenterologist as having dysphagia. His symptoms occur almost immediately after swallowing and include choking, coughing, and nasal regurgitation. He has also had a bout of aspiration pneumonia. Which type of dysphagia does this represent?

F) Esophageal dysphagia, intermittent motor type
G) Esophageal dysphagia, intermittent mechanical obstruction
H) Esophageal dysphagia, progressive mechanical obstruction
I) Oropharyngeal dysphagia

Answer: D

Objective: Describe the differences on the clinical presentation of oropharyngeal dysphagia and esophageal dysphagia.

Explanation: Individuals with oropharyngeal dysphagia have difficulty initiating swallowing and can present with choking, coughing,or drooling when eating. They may also have bouts of aspiration pneumonia.

4-A 56 year old male presents with a complaint of difficulty swallowing for the past couple of months. He says he has problems swallowing both liquids as well as solid food. No abnormalities are found on examination. A barium swallow shows esophageal dilatation with a "bird's beak" tapering of the distal esophagus. Esophageal manometry reveals absence of peristalsis as well as failure of the lower esophageal sphincter to relax after swallowing. These findings are consistent with which of the following diagnoses:

J) Achalasia
K) Zenker's diverticulum
L) Oropharyngeal dysphagia
M) Esophageal web

Answer A

Objective: Be able to use the history and physical as well as any additional laboratory or imaging data to navigate through the scheme to a final diagnostic category/disease.

Explanation: In achalasia there is failure of the LES to relax and there is secondary dilation of the esophagus. There is a "bird beak "appearance on barium swallow

Worked Case Example Small Group Sessions are held weekly as part of SPM. The goal of these sessions is to give students an opportunity under the guidance of an experienced physician tutor to analyze patient cases and to apply the "clinical scheme" and the basic sciences learned in the previous

week to these patient cases. An example of a worked case example case can be reviewed in the Section II, Appendix 3a-d.

MEDICAL SKILLS

Standardized patients complete checklists on student communication, history-taking and examination skills as part of the Medical Skills course. An example check list follows:

H&P CHECKLIST: _____JAMIE ANDARES_____

Date_____Student_____ SP initials_____

	Yes	No
Student established a positive working relationship (presented him/her-self, eye contact and addressed me as Mr./Ms. Andares) [comm.]		
Student asked me about onset of symptoms and developed a chronologic timeline of my complaints [Hx]		
Student asked me about weight loss or gain (Review of Systems) [Hx]		
Student asked me if I feel that the food "sticks" to my throat [Hx]		
Student asked me to show where I feel the food is "stuck" [Hx]		
Student asked me if I choke or cough after swallowing [Hx]		
Student asked me if I feel food coming up my nose after swallowing [Hx]		
Student asked me about alcohol and tobacco use [Hx]		
Student asked me about my own perspective how the new symptom affects my life in a supportive manner [comm.]		
Student asked me about diseases in my family [Hx]		
Student examined my mouth [PE]		
Student asked me to smile (check for facial droop) [PE]		
Student listened to my lungs and heart under my clothing [PE]		
Student listened to my right lung, on the side [PE]		
Student performed stretch tendon reflexes examination on both arms [PE]		
Student performed stretch tendon reflexes examination on both legs [PE]		
Student asked me to move my wrist OR forearm against resistance – both wrists OR forearms [PE]		
Student asked me to move my knee OR ankle against resistance – both knees OR ankles [PE]		
Student asked me to walk and observed my gait [PE]		
Student explained to me that the difficulty swallowing I experience may be related to the stroke I suffered [comm.]		
Student made me feel comfortable [comm.]		

Comments or Clarifications:

Society, Community, and the Individual (SCI)

In SCI students spend one-half day a month in a community clinic. As part of that experience preceptors complete the following checklist assessing student history-taking and communication skills:

TEXAS TECH UNIVERSITY HEALTH SCIENCES CENTER
SCHOOL OF MEDICINE – El Paso
FACULTY CHECKLIST: REPORT ON CORE ACTIVITY #3
BASIC HISTORY (PERIODIC HEALTH EXAMINATION or FOLLOW UP ON A STABLE PROBLEM)

Student:
Date:

You must check 'yes', 'no' or 'N/A' for not applicable-not observed for each item

Yes	No	N/A	Check if the student orally reported to the preceptor (MD,FNP):
			1. Patient's chief complaint
			2. A chronological sequence of the present illness
			3. Patient's past medical history
			4. Patient's family history
			Check if the student was able to:
			5. Determine the patient's need for preventative interventions
			6. Identify the type of screening test the patient was due for
			7. Identify the immunizations the patient was due for
			8. Determine whether the patient had a normal or abnormal weight
			9. Two medical conditions associated with the patient's weight abnormality if applicable
			10. Three medical conditions the patient is at risk for due to the weight abnormality
			11. Identify information material aimed to prevent disease and promote health
			12. Discuss information material with patient
			13. Elicit information about the impact of the patient's symptoms on his/her daily life
			14. Elicit information about the patient's explanation (s) about his/her symptoms or disease
			Check if the student:
			15.Demonstrates good communication skills (e.g., Provides clear information to patient, gives patient opportunity to ask questions)
			16.Demonstrates good interpersonal skills (e.g., demonstrates courtesy when communicating with preceptor and staff)
			17.Demonstrates professionalism (e.g., demonstrates respect and professional demeanor)

Please ask the student:

From the patient's perspective…

1. What is the most troubling or worrisome about this illness for the patient?
2. What impact is the illness having on the patient's life?
3. What is the patient hoping we can do for him/her today?

See also the Required Course and Clerkship Forms and the information for standards ED-6/7 and ED-19.

ED-29. The faculty of each discipline should set the standards of achievement in that discipline.

No additional information is required.

Refer to the responses for standard MS-33 in Section III of the database relating to evaluation of student performance. If there are no institutional policies regarding evaluation of student performance, describe how standards of achievement are or will be determined for required courses and clerkships.

ED-30. The directors of all courses and clerkships must design and implement a system of formative and summative evaluation of student achievement in each course and clerkship.

Those directly responsible for the evaluation of student performance should understand the uses and limitations of various test formats, the purposes and benefits of criterion-referenced vs. norm-referenced grading, reliability and validity issues, formative vs. summative assessment, etc.
In addition, the chief academic officer, curriculum leaders, and faculty should understand, or have access to individuals who are knowledgeable about, methods for measuring student performance. The school should provide opportunities for faculty members to develop their skills in such methods.
An important element of the system of evaluation should be to ensure the timeliness with which students are informed about their final performance in the course/clerkship. In general, final grades should be available within four to six weeks of the end of the course/clerkship.

a. Describe the availability of individuals knowledgeable about educational assessment who can assist faculty in developing formative and summative evaluations of students (for example, experts in test development or educational measurement). Describe the organizational placement of such individuals (for example, medical school office, university office, department). Are there plans for additional recruitment of such individuals?

Expertise in educational assessment is available to the faculty through the Office of Curriculum, Evaluation and Accreditation (OCEA). OCEA is an academic service unit directed by the senior associate dean for medical education. This office includes a PhD level director of assessment and evaluation. This person is knowledgeable in statistical analysis, mixed methods research, and qualitative assessment. Besides providing technical analysis, interpretation, and quality control oversight on all internally generated assessments, she is available for individual and group consultation on assessment issues. The director of assessment and evaluation in OCEA is also working closely with faculty in developing scoring rubrics to assess written exercises, class presentations, projects, and professionalism. The senior associate dean also has considerable experience in student assessment including service on an USMLE Step 1 item writing committee. At present, we have the resources needed to meet institutional needs.

b. List any workshops or similar activities given during the most recent academic year that addressed methods of evaluating student performance.

Upon the recruitment of the majority of faculty members responsible for the design and delivery of the first and second year curriculum, we conducted several workshops and faculty development events on student assessment, including item-writing workshops conducted by the senior associate dean for medical education and by representatives of the National Board of Medical Examiners. Most of these events occurred in the 2008-2009 academic year prior to the seating of the charter class in July 2009.

During the current academic year, most of the faculty development related to evaluating student performance has been in the form of individual feedback to faculty based on item analysis of their formative and summative evaluation questions. The director of assessment and evaluation has also worked with small groups of faculty to assist them in the development of scoring rubrics for student written work in Scientific Principles of Medicine (“tank-side rounds), clinic observation exercises in the Society, Community, and Individual Course, reflection exercises in the Masters Colloquium, and for the write-up required to document progress in the Scholarly Activity and Research project. At this point in our development, we feel that targeted feedback and just-in-time instruction and guidance are the most

effective approach for enhancing faculty members' knowledge and skills in student assessment methodologies.

Finally, the associate dean for faculty affairs has established a faculty development program to prepare our current faculty members for the expanded evaluation process within the four-year medical school.

c. Provide information on the average length of time for course grades to be available to medical students, and include information about any courses that are significant outliers. Describe how the school ensures that course grades are released to students in a timely manner.

Examination results are reported to students in a timely fashion. Formative exam results are reported instantly on submitting the completed examination. Summative exam and OSCE scores are reported within in 24-72 hours of administration following a review of the results and any adjustments that need to be made to accommodate flawed items. All course grades finalized and submitted electronically to the Texas Tech University Health Sciences Center (located in Lubbock) within 10 days of the completion of the final examination (including OSCE). Students can access their final grade electronically through their e-portfolio. There are no significant outliers. Grade reports are the responsibility of the senior associate dean for medical education and all student assessment is coordinated by the Office of Curriculum, Evaluation and Accreditation. Three staff members—2 coordinators in OCEA and 1 senior analyst in the IT/ET department—have been assigned to work full time on the coordination and management of the formative and summative evaluation process.

d. Describe plans for ensuring that clerkship grades will be available in a timely manner.

Clerkship grades will be submitted within 30 days of the completion of the experience. Grades and the supporting materials upon which the grades are based (e.g., clerkship assessment form, NBME shelf-exam scores, etc), will be submitted to the Year 3-4 coordinator for posting in the student e-portfolio. If grades are not submitted within the required 30 days, the Year 3-4 coordinator will contact the senior associate dean for medical education and he will follow-up with the clerkship director to ensure submission.

See also information for standard ED-26 in this section, MS-33 in Section III of the database, Required Courses and Clerkships, Part A, item (B.), and individual Required Course and Clerkship forms.

ED-31. Each student should be evaluated early enough during a unit of study to allow time for remediation.

It is expected that courses and clerkships provide students with formal feedback during the experience so that they may understand and remediate their deficiencies. Courses or clerkships that are short in duration (less than 4 weeks) may not have sufficient time to provide structured formative evaluation, but should provide alternate means (such as self-testing or teacher consultation) that will allow students to measure their progress in learning.

a. Summarize the opportunities that are available for formative assessment during the preclinical years (such as the availability of practice tests, study questions).

Early formative assessment is an integral part of the **Scientific Principles of Medicine** curriculum. A 25 item formative quiz is given weekly during the first two years of the curriculum. These exams cover the material addressed in the previous week. The items for the formative assessment are drawn from the same pool of examination items that are used for summative assessments. The results of the evaluation are reviewed by the college masters, associate dean for student affairs, and the senior associate dean for medical education. This information is used to assess the progress of each student. This process permits early intervention. In addition to assessing academic difficulties, the college masters also provide a more global assessment of the student's adjustment to the rigors of medical school. Because the college masters have a close working relationship with the students, they are in a position to develop and initiate a remediation plan at the earliest sign of concern.

The Office of Student Affairs has hired a PhD educational psychologist as a learning resource specialist for our students. Besides conducting workshops and advising students on study skills, test anxiety, and other topics designed to facilitate learning, she is also available to meet with students individually to conduct "error analysis" on the formative examinations.

For **SCI,** the course director meets with students who have performed poorly on the quizzes conducted at the end of each unit to arrange for appropriate remediation. She also provides students with written and/or verbal feedback on their community clinic assignments. Students who have not completed these assignments in a satisfactory manner are required to revise and resubmit.

Medical Skills closely monitors student performance from week to week based on standardized patient feedback. Student-SP encounters are recorded and are available for review as needed. This allows the development of individualized approaches to remediation based on identified areas of weakness.

b. Describe the institutional policies and procedures that will assure that students receive formal mid-clerkship feedback.

The Year 3-4 required clerkship directors will meet with students in a formal formative feedback session at least once per clerkship at about the mid-point in the experience so that students will have time to remedy any deficiencies and remain on-track for meeting expectations about the clinical conditions they are required to encounter in order to meet clerkship objectives. The results of the mid-clerkship formative feedback session will be uploaded into the student's e-portfolio. The scheduled date and time of the feedback session will be given to the Year 3-4 coordinator in the Office of Curriculum, Evaluation, and Accreditation. She will monitor the e-portfolio for evidence that the feedback was provided and if that evidence is lacking, she will contact the clerkship director to remind him or her of this requirement and to

learn of any special circumstances requiring that it be rescheduled. The senior associate dean will also be contacted so that he can follow-up as needed to ensure that formative feedback is being provided.

See information provided in Required Courses and Clerkships, Part A, item (B), and on the Required Course forms.

ED-32. Narrative descriptions of student performance and of non-cognitive achievement should be included as part of evaluations in all required courses and clerkships where teacher-student interaction permits this form of assessment.

a. List the courses in the preclinical phase of the curriculum that include narrative assessments as part of the final evaluation. Describe courses where the narrative assessments are:

- ***provided only to students***
- ***used as part of the final grade/evaluation in the course***

COURSES PROVIDING NARRATIVE FEEDBACK ONLY TO STUDENTS

Scientific Principles of Medicine—In the weekly 2 hour small group "worked case example" sessions, faculty tutors complete a brief evaluation of student performance addressing both cognitive (e.g., ability to apply knowledge) and non-cognitive behaviors (e.g., preparation and behaving in a respectful manner). The tutors are also expected to provide brief written commentary on student performance and achievement.

Medical Skills—In medical skills, students interact frequently with standardized patients who complete checklists on each student following the interaction. These checklists include judgments about interpersonal skills and sensitivity to the patient during the interaction. In addition to completing the checklist, the standardized patient also provides free-text commentary on the non-cognitive components of student performance in the interaction.

COURSES PROVIDING NARRATIVE FEEDBACK AS PART OF THE FINAL GRADE/EVALUATION

Masters Colloquium—In this course, students complete a number of written reflective exercises dealing with issues related to professional development, ethical reasoning, and controversial topics in medicine. These exercises require the student be introspective and self-aware. The College Masters evaluate these assignments and provide narrative feedback based on rubrics. Students are required to pass these assignments to pass the course. If a student does not meet expectations, they are given an incomplete and an opportunity to revise and resubmit. If a student does not make an effort to satisfactorily complete these assignments, they will be at risk of failing the colloquium and would be referred to the Grading and Promotion Committee.

Society, Community, and the Individual—In this course, students spend one half day a month in community clinic settings where they interact with clinicians, other members of the health care team, and patients. The clinic preceptor completes an evaluation form on each student which includes observations about interpersonal skills. If problems are identified, the course director counsels the student and if they persist, this can be grounds for not passing this component of the SCI course and students must pass all components of the course to receive a grade of 'P' for the semester. A student judged to be at risk for failing the course is referred to the Grading and Promotion Committee.

b. Describe plans for the use of narrative evaluation in required clinical clerkships.

Clerkship directors will be required to include a narrative summary of the performance of students as part of the clerkship grading process. This narrative will include comments on such non-cognitive factors as dependability, work ethic, motivation, commitment to self-directed learning related to patient care, interpersonal skills, teamwork, and ethical conduct. Students who do not demonstrate a high level of professionalism will not be eligible for Honors designation regardless of how well they perform in the

other components of the clerkship. If significant problems are detected, or if the student fails to respond to formative feedback, the student may be referred to the associate dean for student affairs. She in turn can refer the student to the Grading and Promotion Committee if necessary.

See information provided on the Required Course and Clerkship Forms.

ED-33. **There must be integrated institutional responsibility for the overall design, management, and evaluation of a coherent and coordinated curriculum.**

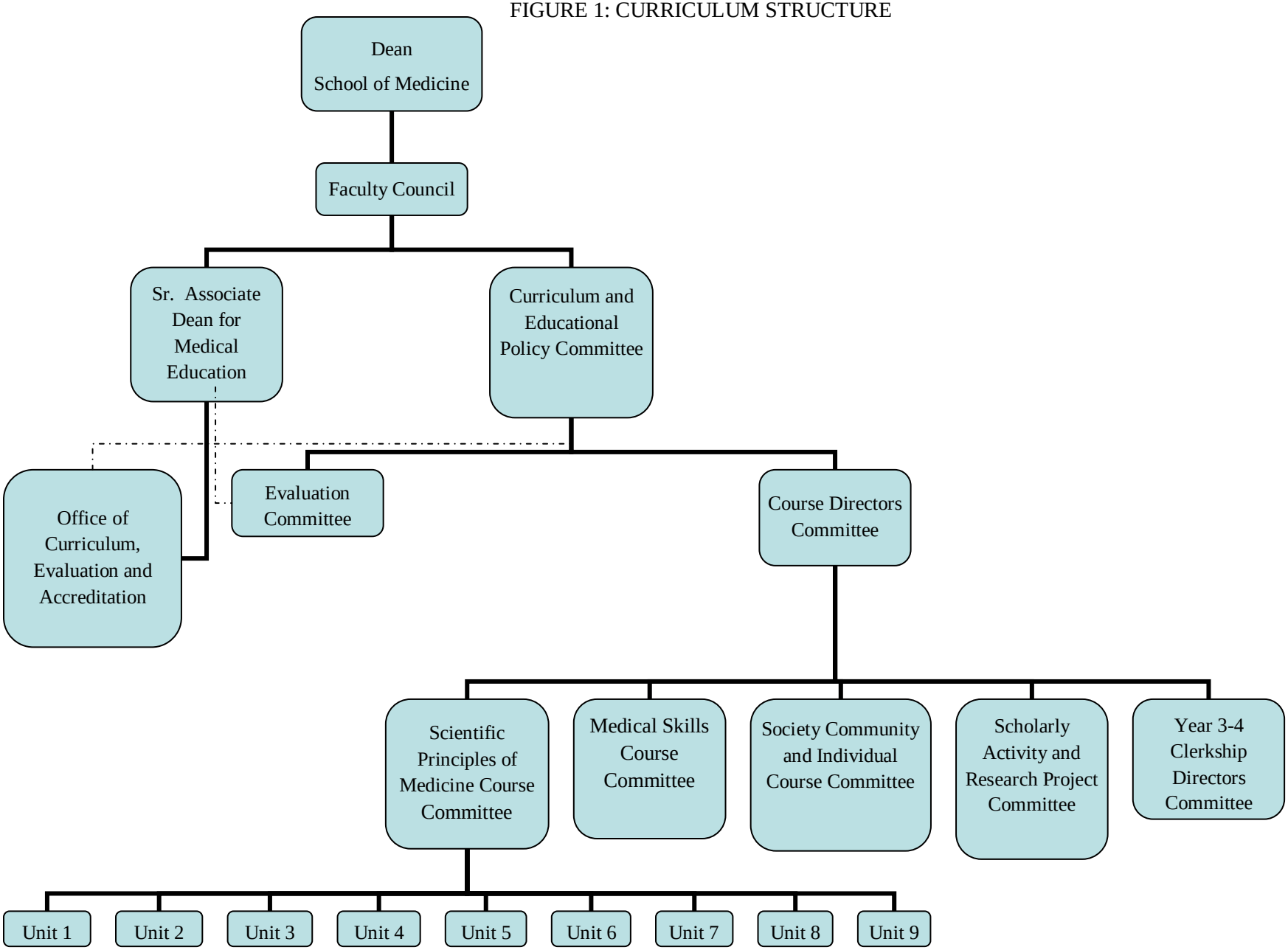
The phrase "integrated institutional responsibility" implies that an institutional body (commonly a curriculum committee) will oversee the educational program as a whole. An effective central curriculum authority will exhibit:

- *Faculty, student, and administrative participation.*
- *Expertise in curricular design, pedagogy, and evaluation methods.*
- *Empowerment, through bylaws or decanal mandate, to work in the best interests of the institution without regard for parochial or political influences, or departmental pressures.*
- *The phrase "coherent and coordinated curriculum" implies that the program as a whole will be designed to achieve the school's overall educational objectives. Evidence of coherence and coordination includes:*
- *Logical sequencing of the various segments of the curriculum.*
- *Content that is coordinated and integrated within and across the academic periods of study (horizontal and vertical integration).*
- *Methods of pedagogy and student evaluation that are appropriate for the achievement of the school's educational objectives.*
- *Curriculum management signifies leading, directing, coordinating, controlling, planning, evaluating, and reporting. Evidence of effective curriculum management includes:*
- *Evaluation of program effectiveness by outcomes analysis, using national norms of accomplishment as a frame of reference.*
- *Monitoring of content and workload in each discipline, including the identification of omissions and unwanted redundancies.*
- *Review of the stated objectives of individual courses and clerkships, as well as methods of pedagogy and student evaluation, to assure congruence with institutional educational objectives.*
- *Minutes of the curriculum committee meetings and reports to the faculty governance and deans should document that such activities take place and should show the committee's findings and recommendations*

a. Provide an organizational chart for the management of the curriculum that includes the curriculum committee and its subcommittees, other relevant committees, the chief academic officer, and other individuals or groups involved in curriculum design, implementation, and evaluation.

See next page for curriculum management organizational chart.

FIGURE 1: CURRICULUM STRUCTURE



Is the curriculum management structure complete? If not, describe any planned additions.

Yes.

b. Supply the title of the faculty committee with primary responsibility for the curriculum:

Curriculum and Educational Policy Committee (CEPC)

c. Provide the charge or terms of reference for this committee and the source of its authority (bylaws, mandate from the dean or faculty executive committee, etc.).

The Curriculum and Educational Policy Committee is established in the faculty bylaws as a permanent committee of the School of Medicine.

As stated in the Faculty Bylaws (Article IX, section C, subsection 2, as revised 11/17/08), the CEPC shall have the responsibility to review on a continual basis the undergraduate medical curriculum to assure its adherence to the written educational policies, goals, and objectives of the School of Medicine and shall report its activities to the Faculty Council at least quarterly. Based upon its review, the committee may make recommendations to the Faculty Council for changes in educational policy or in the organization or content of the curriculum.

The committee is responsible for establishing the policies necessary to maintain a contemporary and effective undergraduate medical curriculum that remains relevant to the continuum of medical education. More specifically, the curriculum must be designed to provide a general professional education that addresses the educational objectives of the institution while preparing students to:

- Enter and complete graduate medical education.
- Qualify for licensure.
- Provide competent and compassionate care.
- Continue their education throughout their careers.

The committee is charged with reviewing the undergraduate medical education curriculum on a continuous basis to assure its adherence to the written educational policies, goals, and objectives of PLFSOM. Based upon its review, the committee may make recommendations to the dean and the faculty, through the Faculty Council, for changes in educational policy or in the organization or content of the curriculum. In order to accomplish the mission of the CEPC, the chair may appoint subcommittees that may include participants who are not members of the committee. It will be the responsibility of the CEPC, through its chair or his designee, to coordinate the activities and reports of these subcommittees.

Curriculum oversight and policy formulation is the primary responsibility of the Curriculum and Educational Policy Committee. This committee consists of faculty representatives appointed by the dean and ex-officio members representing key administrative offices related to medical student education. This committee is responsible for developing educational policies (e.g., grading policies), reviewing courses and clerkships to assure that they are meeting their educational goals and objectives, and approving proposals for changes in the curriculum. Any proposals emanating from the Curriculum and Educational Policy Committee must be presented to the Faculty Academic Council as the elected representative body of the general faculty. Thus, the Faculty Academic Council has ultimate curriculum

authority. If the CEPC and Faculty Council disagreed about a policy recommendation, every attempt would be made to resolve that disagreement thought discussion and compromise. In the event that the Curriculum and Educational Policy Committee and the Council are unable to agree on important curriculum issues, those issues will be taken to the voting faculty for final resolution. To date, there has been no disagreement between these two governing bodies.

The committee meets monthly, and as needed, and is chaired by the senior associate dean for medical education. In the absence of the senior associate dean, the meeting is chaired by a vice chair of the committee, who is elected by a simple majority of the members attending the first meeting of the academic year.

The dean appoints members of the committee based on the recommendation of the chairman consistent with faculty bylaws as described in part 'd' below. These appointments are reported to the Faculty Council.

d. Describe the current composition of this committee and mechanisms for selecting its members and chair. Are any changes in committee composition anticipated in the near future?

As described in the Faculty Bylaws, the senior associate dean for medical education serves as the chairman of the CEPC and committee members are appointed by the dean with the advice and consent of the Faculty Academic Council. The composition of the committee is as follows: 1 MD college master and 1 PhD college master (two year terms); 3 basic science and 3 clinical science faculty members (4 year terms); 1 student from each college elected by his or her respective college on an annual basis; director of information technology (or designee) (ex-officio) and the associate director of library (or designee) (ex-officio).

e. Indicate the frequency of regularly scheduled committee meetings during a typical academic year: (check)

	Weekly
	Bi-weekly
X	Monthly
	Bi-monthly
	Other (describe)

f. If this committee has standing subcommittees, describe their charge or role, membership, and reporting relationship to the parent committee.

COURSE DIRECTORS COMMITTEE

This committee consists of the course directors for the four major courses offered in the first two years of the Paul L. Foster School of Medicine and the two co-directors of the Scholarly Activity and Research Program. The senior associate dean for medical education (Chair, Curriculum and Educational Policy Committee) and the chair of the Department of Medical Education also sit on this committee. The primary purpose of this committee is to promote coordination and integration across courses through frequent communication. If the Curriculum and Educational Policy Committee has questions, concerns,

or recommendations cutting across courses, communication will be with the Course Directors Committee. Committee members annually select the chair from among their number.

A similar committee consisting of required third year clerkship and required fourth year experiences directors has also been formed. Its major function is to establish policies and procedures that apply to all year 3-4 programs. It reports to the CEPC.

COURSE COMMITTEES

Course committees for each course in the first two years of the curriculum, including each SPM unit, are standing subcommittees of the CEPC. Each of these committees is chaired by the course director.

Role of Course Committees

The role of the course committees includes planning the courses and SPM units, including identifying teaching, and evaluation methodologies. The subcommittees also approve examination blueprints and course summative examinations. At the conclusion of each course or SPM unit, the appropriate subcommittee reviews course and student evaluations and recommends changes in the course or unit, as needed.

Reporting Relationship to Curriculum and Educational Policy Committee

At a minimum, course committees, through the course directors, report to the CEPC at least twice each year—once at the beginning of the year regarding course planning and implementation, and once at the end of the year regarding student and course evaluation. At the discretion of the chair of the CEPC or any of its members, mid-year or more frequent reports may be requested. As we are in the early stages of the implementation of our curriculum, each course has presented mid-year reports on their progress to identify successes, problems, and solutions.

Membership of Course Committees

The chair of the Department of Medical Education with the approval of the Curriculum and Educational Policy Committee will appoint the course directors, who will in turn appoint members to their respective course committees. The Curriculum and Educational Policy Committee will approve membership of the course committees. The membership of each course committee will be interdisciplinary, as described below:

Scientific Principles of Medicine—The planning committee for each systems-based SPM unit include faculty representatives from the clinical and basic sciences disciplines to be addressed in the unit.

Medical Skills—The planning committee for this course consists of an interdisciplinary team of clinical faculty.

Society, Community, and the Individual—The planning committee for this course consists of the leaders of the 7 threads that are included in this course: biostatistics, epidemiology, culture, community, family, environmental and occupational health, and Spanish.

Masters' Colloquium—The planning committee for this course consists of the college masters from all colleges.

EVALUATION COMMITTEE

The Committee on Evaluation is a standing subcommittee of the Curriculum and Educational Policy Committee.

Role of the Committee on Evaluation

The primary function of the Committee on Evaluation is to provide oversight on the design, methods, collection, and interpretation of all data (quantitative and qualitative) that is used to assess the quality of the educational programs of the school. The roles of the committee include the following:

- Review the evaluation process on a regular basis, including the content and structure of testing materials, student performance, validity and reproducibility of evaluations, evaluation feedback, and correlation of course content and evaluations.
- Evaluate the curriculum and student performance and provide feedback to the dean and the Curriculum and Educational Policy Committee about the effectiveness of the curriculum.
- Identify problems in student performance, pedagogy, or evaluation that might require prompt modification or remediation.

Membership of Evaluation Committee

The members of this committee are broadly representative of the faculty responsible for basic science instruction across the curriculum and the clinical training programs. Committee Members are appointed by the dean on the recommendation of the senior associate dean for medical education for an initial 3 year term that will be annually renewable at the discretion of the dean and recommendation of the senior associate dean for medical education. Ex-Officio members of the committee includes the senior associate dean for medical education, the director of assessment and evaluation in the Office of Curriculum, Evaluation, and Accreditation, and the college masters who are not serving terms on the Curriculum and Educational Policy Committee. The Evaluation Committee is chaired by the director of assessment and evaluation.

Reporting Relationship to Curriculum and Educational Policy Committee

The Evaluation Committee will report to the CEPC, through its chair, on an annual basis or more frequently as requested by the evaluation committee chair, the chair of the CEPC, or by request of any member of the CEPC.

g. Describe the roles of the curriculum committee and any subcommittees, the chief academic officer or associate dean for educational programs, interdisciplinary course committees (if relevant), and the departments in each of the following areas:

- ***Developing and reviewing the institutional objectives for the educational program***
- ***Reviewing the objectives of individual courses and clerkships***
- ***Ensuring use of appropriate teaching methods or instructional formats***
- ***Planning the clinical curriculum***
- ***Ensuring that content is coordinated and integrated within and across academic periods of study***
- ***Ensuring use of appropriate methods to evaluate student performance***
- ***Monitoring the quality of individual faculty members' teaching***
- ***Monitoring the overall quality of teaching in courses***

DEVELOPING AND REVIEWING THE INSTITUTIONAL OBJECTIVES FOR THE EDUCATIONAL PROGRAM

The Curriculum and Educational Policy Committee provides educational vision and oversight related to the design, implementation, and evaluation of the undergraduate medical curriculum and ensures that course learning objectives and outcomes are aligned with institutional educational objectives. The committee also ensures that the curriculum adheres to LCME standards and to the mission, vision, and long-term goals of the school of medicine. The CEPC provides an annual report on the "State of the Curriculum" to the Faculty Council.

Ilios, a centralized, web-based, curriculum-management tool is used to ensure that objectives from each course are, collectively, covering the whole spectrum of institutional goals and educational objectives. Ilios is integrated with Web CT/Blackboard for all information provided to students and for maintaining a curriculum calendar. Ilios enables us to confirm planned redundancy and eliminate unnecessary duplication in the curriculum. Ilios is also used to track total contact hours so that we can ensure that the curriculum meets the school's goals for appropriate, scheduled educational encounters, while allowing adequate free time for self-study and clinical activities.

Departments, as organizational entities, are not involved in the review of institutional objectives. This is a function of the faculty through their representative membership in the CEPC and the Faculty Council.

REVIEWING THE OBJECTIVES OF INDIVIDUAL COURSES AND CLERKSHIPS

Individual course (or unit in the case of the Scientific Principles of Medicine Course) and clerkship learning objectives are developed the faculty members responsible for instruction and these are in turn reviewed by the responsible course, unit, or clerkship committees and the designated course or clerkship directors.

The CEPC approves the individual courses' learning objectives and then recommends them to the Faculty Council. Each Department is represented on the Faculty Council.

ENSURING USE OF APPROPRIATE METHODS OR INSTRUCTIONAL FORMATS

As the curriculum is in its second year of implementation, there has been only a single cycle of reporting to the CEPC about teaching methods or instructional formats being implemented. Each course's design for teaching methods and instructional formats was known to the committee prior to implementation of the curriculum starting in July 2009. At the 2010 summer meeting, the course directors proposed no significant changes to the teaching methods or instructional formats.

The course committees have primary responsibility for identifying appropriate methods and instructional formats for each course. The committees have access to the expertise available in the Office of Curriculum, Evaluation, and Accreditation as well as the director of academic support in the Office of Student Affairs. These individuals are available to assist course committees in identifying appropriate methods and instructional formats. The CEPC reviews the planning and evaluation reports from each course committee to ensure that selected pedagogical methods are appropriate for meeting the educational objectives of the course or unit.

Planning the Clinical Curriculum

The chairman of the Curriculum and Educational Policy Committee established a Year 3-4 Task force in the summer of 2008 to define the initial framework for those years of the curriculum. That Task Force made its recommendations to the committee on August 4, 2008. That recommendation was approved as a recommendation to the Faculty Council where it was approved (see year 3-4 course schematics in ED-5).

In January 2010, the Year 3-4 Task Force reconvened and organized into "design teams" consistent with the block structure of the curriculum: internal medicine/psychiatry, obstetrics and gynecology/pediatrics, surgery/family medicine, neurology, critical care, emergency medicine, and capstone course. The design teams were charged with developing an approach to integrating instruction across disciplines, determining the mix of hospital and ambulatory experiences, identifying the clinical conditions that students will be exposed to, determining student level of responsibility, identifying the clinical presentations from years 1-2 that will be revisited in their respective clerkships, and establishing methods for assessing student performance and measuring clinical skill acquisition. Each design team was also charged with determining how the following topics would be addressed in their respective blocks: geriatrics, basic science, ethics, professionalism, and communication skills, evidence-based medicine, patient safety, quality improvement, chronic illness care, pain management, palliative care, diagnostic imaging, clinical pathology, and clinical and translational research. In addition to clinical faculty members, each design team includes one or more basic science faculty members and a College Master. This was done in an effort to maximize opportunities for integration and coordination over the four year medical school continuum.

Ensuring that Content is Coordinated and Integrated within and across Academic Periods of Study

The CEPC reviews the general operations of the curriculum on a regular basis to ensure that the curriculum content is coordinated and integrated within and across academic periods of study. This includes an annual review of the overall program to include scheduling, faculty assignments, and any major changes in content. This function is facilitated through the use of the Ilios curriculum management program described earlier. The committee allocates time to each course. The committee also receives and considers regular reports from the senior associate dean for medical education and from the evaluation committee. The CEPC may also communicate directly with the dean and with appropriate course directors or department chairs in the event an urgent concern about the curriculum is identified.

In addition to the annual course reviews, each course will be reviewed in depth by the CEPC every three years. The learning objectives, content, and pedagogy of each segment of the curriculum will be reviewed in detail with the goals of ensuring congruence with the institutional educational objectives and maintaining a coordinated and integrated curriculum.

Ensuring Use of Appropriate Methods to Evaluate Student Performance

The Office of Curriculum, Evaluation, and Accreditation is responsible for ensuring that appropriate methods are used in assessing student performance. This is a major responsibility of the director of assessment and evaluation and her staff. She is advised by the members of the Evaluation Committee which reports to the CEPC.

In addition to internal review of the curriculum, benchmarks will be used to compare the performance of students at TTUHSC-Paul L. Foster School of Medicine with national norms. These benchmarks will include grades, success rates on USMLE Steps 1, 2 (CK, CS), other normative national examinations, and NBME examinations.

The Office of Curriculum, Evaluation, and Accreditation also provides support for the Student Grading and Promotions Committee, which monitors individual student performance, certifies satisfactory student achievement, and recommends to the administration and to the faculty the promotion of students at the end of appropriate academic periods.

Monitoring the Quality of Individual Faculty Teaching

Faculty members and courses are evaluated by medical students throughout the curriculum. The results of these evaluations are tabulated and analyzed by the Office of Curriculum, Evaluation, and Accreditation with summary results provided to the appropriate individuals, including the evaluated faculty member, the course committee chair, and department chairs. The evaluations also are used by the Curriculum and Educational Policy Committee and the individual course planning committees in their assessments of the effectiveness of the curriculum. In addition to student evaluation, we are committed to developing constructive peer review policies and procedures to promote excellence in teaching and learning.

The Committee on Evaluation has established surveys for course evaluation and faculty evaluation by students. These surveys are sent to samples of the class after each major segment of the yearly curriculum (at end of each SPM/Medical Skills Unit or semester for the Society, Community and Individual course and the Masters Colloquium.

Monitoring the Overall Quality of Teaching in Courses

Oversight of the overall quality of teaching in courses is a shared responsibility of the Office of Curriculum, Evaluation, and Accreditation and course and unit directors. The results of evaluation surveys are reviewed by the director of assessment and evaluation, the senior associate dean for medical education, the course directors, and the course committees to identify areas for improvement. Course directors are required to present these results to the Curriculum and Educational Policy Committee and to describe proposed changes based on evaluation results.

ED-34. The program's faculty must be responsible for the detailed design and implementation of the components of the curriculum.

Such responsibilities include, at a minimum, the development of specific course or clerkship objectives, selection of pedagogical and evaluation methods appropriate for the achievement of those objectives, ongoing review and updating of content, and assessment of course and teacher quality.

a. Provide examples of the types of changes that can be handled at the level of the course or clerkship and the types of changes that require curriculum committee or other central approval.

The following are examples of the types of changes can be handled at the level of a course or clerkship:

- Revision in the wording of session specific learning objectives
- Revision of sequencing of presentation of content within a course or unit
- Minor changes in scheduling—for example, switching lecture times of faculty members to accommodate changes in faculty schedules due to illness or to provide more appropriate sequencing
- Minor changes in planned teaching modalities—for example, changing a scheduled lecture to a large group team based learning exercise
- Reassigning faculty tutors in small group sessions
- Changes from year to year in required texts or assigned readings

Any proposed change at the level of a given course that may impact on another course must be discussed with the leadership of the other course(s). To facilitate communication between courses, a Course Directors Committee has been formed (see ED-33), which meets as needed to facilitate communication and coordination. Similarly, a clerkship directors committee has also been formed to perform similar functions.

The following are examples of the types of proposed changes that must be reviewed and approved by the Curriculum and Educational Policy Committee (CEPC):

- Increase or decrease in proposed contact hours
- Change in course content that could have the effect of creating gaps or unintended redundancies
- Major changes in educational methods—e.g., replacing small group learning with lectures
- Changes in grading policy

See also the Required Course and Clerkship Forms, and information for standards ED-33 and ED-46/47.

ED-35. The objectives, content, and pedagogy of each segment of the curriculum, as well as for the curriculum as a whole, must be subject to periodic review and revision by the faculty.

a. Describe the process of formal review for each of the listed curriculum elements. Include in the description how often such reviews are or will be conducted, how they are conducted, under what auspices (e.g., the department, the curriculum committee) they are undertaken, and the administrative support that exists for such reviews (for example, through an Office of Medical Education).

- ***Required courses***
- ***Required clerkships***
- ***Individual years or academic periods of the curriculum***
- ***The entire curriculum***

REQUIRED COURSES

As previously described, course directors report to the Curriculum and Educational Policy Committee (CEPC) at least twice each year—once at the beginning of the year regarding course planning and implementation, and once at the end of the year regarding student and course evaluation. Course directors are expected to identify course strengths and areas for improvement and to report on continuous quality improvement initiatives and results. In addition to these annual course reviews, each course will be reviewed in depth by the CEPC) every three years. These reviews will examine historical trends in student performance within the course, performance on national examinations in related content areas, and historical trends in student evaluations of the course. In addition, each course will be evaluated as to the types of teaching modalities employed and how well topics covered by the course reflect stated course and institutional learning objectives. This review will be based on data compiled using the Ilios curriculum management tool.

In addition to Course Director reports, the CEPC will also collect reports from the Evaluation Committee. The Office of Curriculum, Evaluation and Accreditation will provide administrative and support staff for such reviews.

REQUIRED CLERKSHIPS

Required clerkships will be evaluated in a manner similar to those described above for required pre-clerkship courses. Each clerkship director will be required to report to the CEPC prior to the initiation of the clerkship for formal approval of the syllabus and, again, at the end of the year to report on strengths, challenges, student performance, and quality improvement efforts and outcomes. As the clerkships will be implemented for the first time in July 2011, each of the clerkships will be required to report to the CEPC for a mid-year evaluation.

INDIVIDUAL YEARS OR ACADEMIC PERIODS OF THE CURRICULUM

The course directors for all required courses and the Scholarly Activity and Research Project program provided the CEPC with an end of year review based on student performance in the courses, the results of the Comprehensive End of Year Examination, student evaluations, and faculty observation and experience.

THE ENTIRE CURRICULUM

The entire curriculum will be reviewed in depth by the CEPC every five years. This review will rely heavily upon data generated in annual course reviews, student performance on NBME and USMLE examinations, and once available, results of the AAMC Graduation Questionnaire. Data routinely

collected for curriculum management purposes will also be an important source of information as this will enable us to monitor educational content, methods, and integration.

b. Provide a copy of any standardized templates for course reviews and any standardized forms used for the evaluation of courses.

Course directors are required to provide the following information to the CEPC when they present their end of year reviews:

1- An overview of the course goals and major topics

2- A summary of course contact hours by educational method (e.g., lecture, laboratory, small group, self-study)

3- Review of class performance and summary of grades earned

4- Review of student evaluations (numerical ratings and a summary of themes derived from free text responses)

5- Course director's evaluation of the course, including:

   a. Description of course strengths

   b. Discussion of challenges and problems

   c. Response to student concerns

   d. Discussion of plans for quality improvement (and for prior quality improvement plans the outcome of these efforts)

Student course and faculty evaluations are delivered through a web-based survey program managed by the staff of the IT department at TTUHSC, Paul L. Foster School of Medicine. Responses are anonymous, though we do ask students to sign in as a means of tracking who completes forms. A

ll students are asked to complete course evaluations. For faculty evaluations, students are randomly assigned to evaluate 5-7 faculty members in an effort to reduce respondent burden. Each faculty member, who has at least 5 contact hours with the students is evaluated by 10-12 students in each administration. We expect, over the course of the year, each faculty member will be assessed by most of the students in the class.

Copies of the evaluation instruments can be found in Section II, Appendix 12 & 13.

In addition to the "official" course evaluations, the members of the Student Curriculum and Evaluation Committee, consisting of student representatives from each of the existing two Colleges have completed a number of independent surveys of their classmates and have shared the results with the senior associate dean for medical education electronically and in meetings. The information in these surveys is consistent with that resulting from the official evaluations.

c. Describe the status of development of a clerkship review process and include any standardized forms and templates for this review that are available to date.

The required clerkship reviews will be very similar to those described above for the required courses in years 1 and 2. A Year 3-4 Task Force is actively engaged in the process of developing the curriculum model for the required courses and clerkships for those years. Methodologies for soliciting student input

on these experiences are also being developed. Copies of current drafts of these instruments are in Section II, Appendix 13.

ED-36. The chief academic officer must have sufficient resources and authority to fulfill the responsibility for the management and evaluation of the curriculum.

The dean often serves as the chief academic officer, with ultimate individual responsibility for the design and management of the educational program as a whole. He or she may, however, delegate operational responsibility for curriculum oversight to a vice dean or associate dean.
The kinds of resources needed by the chief academic officer to assure effective delivery of the educational program include:

- *Adequate numbers of teachers who have the time and training necessary to achieve the program's objectives.*
- *Appropriate teaching space for the methods of pedagogy employed in the educational program.*
- *Appropriate educational infrastructure (computers, audiovisual aids, laboratories, etc.).*
- *Educational support services, such as examination grading, classroom scheduling, and faculty training in methods of teaching and evaluation.*
- *Support and services for the efforts of the curriculum management body and for any interdisciplinary teaching efforts that are not supported at a departmental level.*

The chief academic officer must have explicit authority to ensure the implementation and management of the educational program, and to facilitate change when modifications to the curriculum are determined to be necessary.

a. Provide the name and title of the chief academic officer responsible for the medical education program. If the dean functions as the chief academic officer but has delegated responsibility for medical student education to an associate dean or other individual, provide the name and title of the latter individual.

Name:	David J. Steele, PhD
Title:	Senior Associate Dean for Medical Education

b. Provide a position description for the individual responsible for the medical education program leading to the M.D. degree, if this person is not the dean.

The dean serves as the chief academic officer of the School of Medicine. In that position, he is responsible for the operation and evaluation of the curriculum and for ensuring that medical students within the School of Medicine have access to a curriculum that is in full compliance with the requirements of the Liaison Committee on Medical Education and fulfills the stated institutional educational objectives. He has delegated the operational responsibilities to the senior associate dean for medical education. This individual provides day-to-day supervision of the Office of Curriculum, Evaluation, and Accreditation. He oversees the deliberations of the Curriculum and Educational Policy Committee and is an ex-officio member of the Evaluation Committee. The senior associate dean is expected to report to the dean on a regular basis (at least bi-weekly) regarding the current status of curriculum administration and any important matters related to the curriculum. The senior associate dean for medical education is an experienced, generalist in medical education with 28 years experience at four medical schools spanning the full continuum of medical education. He also has considerable experience

in the accreditation process having chaired the accreditation task force at his previous institution. Before joining the faculty of the PLFSOM, he served as course director, year director, assistant and associate dean for curriculum and evaluation.

c. Briefly describe any centralized offices that are under the authority of the chief academic officer (such as an Office of Medical Education) whose primary purpose is to provide administrative or academic support for the planning, implementation, evaluation, and oversight of the curriculum. Note the reporting relationships of the directors of any such offices. Note if such an office is planned if one does not currently exist

OFFICE OF CURRICULUM, EVALUATION AND ACCREDITATION

The Office of Curriculum, Evaluation, and Accreditation is under the immediate supervision of the senior associate dean for medical education. The personnel in this office are broadly responsible for the day-to-day management of the curriculum and for support of the administrative officials and committees charged with oversight and review of the curriculum. Support provided by this office includes scheduling of meetings and conferences, assisting with agendas and meeting minutes, notifying key personnel concerning deadlines, and maintaining current information about accreditation requirements that relate to curriculum. The members of this office are also responsible for providing day-to-day support to course directors and faculty responsible for the delivery of instruction.

Responsibility for monitoring student assessment and for program evaluation has been delegated to the director of assessment and evaluation. The director of assessment and evaluation provides support for the evaluation of the curriculum. This includes managing the evaluation process by assisting with preparation of evaluation instruments, administering or assisting with examinations, scoring examinations, publishing results, interpreting and summarizing results, and communicating these interpretations and results to the appropriate individuals, including the College Masters, the Curriculum and Educational Policy Committee, the Evaluation Committees, the senior associate dean for medical education, and the associate dean for student affairs. The director of assessment and evaluation is also responsible for providing instruction and assistance to the faculty on evaluation methods and the evaluation of assessment instruments. This responsibility is shared with the senior associate dean for medical education.

d. Is there a specific budget for the educational program? If so, describe how the budget is determined, and how and by whom the budgeted funds are allocated to departments and/or individual faculty.

The medical education program has its own annual budget to support its operation. Medical education at the Paul L. Foster School of Medicine is well financed and reflects the commitment of the School to develop and implement a state-of-the-art four-year program leading to the MD degree that will provide excellent preparation for students to enter graduate medical education training in the specialties of their choice.

The budget is determined as follows: A written request with justification is forwarded to the associate dean for finance and administration who serves as the chief financial officer. He reviews the request and justification, solicits additional information as needed, and then refers the requests to the "Budget Advisory Committee." This committee consists of representatives of medical education (senior associate dean for medical education and chair, Department of Medical Education), research (associate dean for research, and director of basic science research in cancer center of excellence), and the clinical practice

plan (president of the physicians group and the associate dean for clinical practice), and budgetary staff members (administrator of the physician group, SOM budget officer) and the associate dean for finance and administration. This group reviews the proposed budget against available revenues and then makes recommendations about the budget that are forwarded to the dean for final approval.

See also information for standard ED-33, ED-35, and Required Course and Clerkship Forms.

ED-37. The faculty committee responsible for the curriculum must monitor the content provided in each discipline so that the school's educational objectives will be achieved.

The committee, working in conjunction with the chief academic officer, should assure that each academic period of the curriculum maintains common standards for content. Such standards should address the depth and breadth of knowledge required for a general professional education, currency and relevance of content, and the extent of redundancy needed to reinforce learning of complex topics. The final year should complement and supplement the curriculum so that each student will acquire appropriate competence in general medical care regardless of subsequent career specialty.

a. Describe how the curriculum committee monitors the content of required courses and will monitor the content in required clerkships. By what means is curricular content monitored? For example, is a curriculum database used?

As previously described (ED-33), the Curriculum and Educational Policy Committee meets monthly and as necessary. It conducts annual course reviews and an annual programmatic review. It will conduct in-depth course reviews every two to three years and an in-depth programmatic review every five years. The reviews are intended to accomplish the following:

- Ensure that selected pedagogical methods are appropriate for meeting the educational objectives of the course or unit
- Ensure that course objectives are congruent with the school's educational objectives
- Ensure that the curriculum content is coordinated and integrated within and across academic periods of study
- Ensure that the cumulative curriculum adequately addresses the educational objectives of individual disciplines, to include identifying any gaps, confirming planned redundancies, and eliminating over-duplication in the curriculum
- Ensure that the curriculum meets the school's goals for appropriate, scheduled educational encounters, while allowing adequate free time for self-study and clinical activities

Information for these reviews are gleaned from several sources, including the following:

- Planning and evaluation reports from each course committee—Reports from the various course committees include a summary of course learning objectives and their relationship to institutional learning objectives, a description of topics covered during the course, results of student evaluations, and summaries of course evaluations by the students. The reports also include observations about individual faculty performance that is outside the norm and areas of concern regarding redundancy or omission. Recommendations for curricular change are also be included.
- Curriculum Database—A curriculum database is maintained with proprietary software—Ilios developed by the University of California San Francisco (see ED-33). Data entry is provided by the Office of Curriculum, Evaluation and Accreditation and summary reports are available to the Curriculum and Educational Policy Committee and the Senior Associate Dean for Medical Education. Regular reports from the Senior Associate Dean for Medical Education and the Evaluation Committee
- Consultations with course and clerkship directors

- Consultations on an as-needed basis with the Dean, department chairs, and other individuals who may have information pertinent to the design, implementation, and enhancement of the curriculum

b. Describe how gaps and unwanted redundancies in curricular content are or will be identified and corrected. If a curriculum database is used, describe who has access to it.

The Ilios curriculum management data base enables us to systematically review the curriculum to identify gaps and unwanted redundancies. The faculty and administrative staff involved in the curriculum have access to the Ilios curriculum data base and are able to do searches and access learning materials. It should be noted that in our highly integrated curriculum, faculty from all disciplines have participated in building the curriculum, session by session, through literally hundreds of hours of face-to-face meetings. In these meetings, the schematic representation of a given clinical presentation (e.g., sore throat) was reviewed by a clinician with the group. Following this review, basic science faculty members then identified the topics, learning objectives, and the approximate amount of time needed to address concepts and content necessary to understand the pathophysiological process associated with the clinical presentation.

c. Illustrate how the curriculum committee would know where in the curriculum "health disparities" and "acid-base balance" are or will be taught. For example, if there is a curriculum database, provide print-outs of the results of searches for these two topics.

Please see tables next page.

HEALTH DISPARITIES

Report for M1 year class of 2013

ID	Session Title	Session Date	Session Type	Course Title	Unit Title	CP Title	Academic Year	Grad Year	Hours	Faculty
16863	Population Dynamics and Border Health: Urbanization, Immigration, and Globalization	7/15/2009	Lecture	Society, Community and the Individual I	N/A	N/A	2009-2010	2013	1	Eric Hutson
16870	Community Assessment, What is Epidemiology and its Role in Medicine? and Measure of Association	7/16/2009	Large / Small Group	Society, Community and the Individual I	N/A	N/A	2009-2010	2013	4	Zuber Mulla, Theresa Byrd
16878	Community Assessment Experiential Activity	7/20/2009	Large / Small Group	Society, Community and the Individual I	N/A	N/A	2009-2010	2013	4	Theresa Byrd
16895	Mexican-American Culture on the Border	7/27/2009	Lecture	Society, Community and the Individual I	N/A	N/A	2009-2010	2013	1	Ulysses Urquidi
16896	Promotora Model	7/27/2009	Lecture	Society, Community and the Individual I	N/A	N/A	2009-2010	2013	1	Theresa Byrd
17479	Promoting Health in Communities	9/11/2009	Lecture	Society, Community and the Individual I	N/A	N/A	2009-2010	2013	2	Theresa Byrd
17487	Community Based Participatory Research	11/18/2009	Lecture	Society, Community and the Individual I	N/A	N/A	2009-2010	2013	1	Theresa Byrd

Report for M2 year class of 2013

ID	Session Title	Session Date	Session Type	Course Title	Unit Title	CP Title	Academic Year	Grad Year	Hours	Faculty
19477	U.S. healthcare system 2240	8/24/2010	Large Group	Masters' Colloquium III	N/A	N/A	2010-2011	2013	2	Kathryn McMahon, Gordon Woods
19478	U.S. healthcare system 2250	8/24/2010	Large Group	Masters' Colloquium III	N/A	N/A	2010-2011	2013	2	Quentin Eichbaum
19479	Socio-economic of ageing U.S. population 2240	8/31/2010	Large Group	Masters' Colloquium III	N/A	N/A	2010-2011	2013	2	Kathryn McMahon, Gordon Woods
19480	Socio-economic of ageing U.S. population 2250	8/31/2010	Large Group	Masters' Colloquium III	N/A	N/A	2010-2011	2013	2	Quentin Eichbaum
19481	Socio-economics: changing U.S. demographics 2240	9/7/2010	Large Group	Masters' Colloquium III	N/A	N/A	2010-2011	2013	2	Kathryn McMahon, Gordon Woods
19481	Socio-economics: changing U.S. demographics 2240	9/7/2010	Large Group	Masters' Colloquium III	N/A	N/A	2010-2011	2013	2	Kathryn McMahon, Gordon Woods
19482	Socio-economics: changing U.S. demographics 2250	9/7/2010	Large Group	Masters' Colloquium III	N/A	N/A	2010-2011	2013	2	Quentin Eichbaum
19482	Socio-economics: changing U.S. demographics 2250	9/7/2010	Large Group	Masters' Colloquium III	N/A	N/A	2010-2011	2013	2	Quentin Eichbaum
19486	Medicine as a business 2240	9/28/2010	Large Group	Masters' Colloquium III	N/A	N/A	2010-2011	2013	2	Kathryn McMahon, Gordon Woods
19487	Medicine as a business 2250	9/28/2010	Large Group	Masters' Colloquium III	N/A	N/A	2010-2011	2013	2	Quentin Eichbaum
19492	Drug companies and hospitals 2240	10/19/2010	Large Group	Masters' Colloquium III	N/A	N/A	2010-2011	2013	2	Kathryn McMahon, Gordon Woods

ID	Session Title	Session Date	Session Type	Course Title	Unit Title	CP Title	Academic Year	Grad Year	Hours	Faculty
19493	Drug companies and hospitals 2250	10/19/2010	Large Group	Masters' Colloquium III	N/A	N/A	2010-2011	2013	2	Quentin Eichbaum, Stephen Sandroni
19494	Medicine and human rights 2240	10/26/2010	Large Group	Masters' Colloquium III	N/A	N/A	2010-2011	2013	2	Kathryn McMahon, Gordon Woods
19494	Medicine and human rights 2240	10/26/2010	Large Group	Masters' Colloquium III	N/A	N/A	2010-2011	2013	2	Kathryn McMahon, Gordon Woods
19494	Medicine and human rights 2240	10/26/2010	Large Group	Masters' Colloquium III	N/A	N/A	2010-2011	2013	2	Kathryn McMahon, Gordon Woods
19495	Medicine and human rights 2250	10/26/2010	Large Group	Masters' Colloquium III	N/A	N/A	2010-2011	2013	2	Quentin Eichbaum, Stephen Sandroni
19495	Medicine and human rights 2250	10/26/2010	Large Group	Masters' Colloquium III	N/A	N/A	2010-2011	2013	2	Quentin Eichbaum, Stephen Sandroni
19495	Medicine and human rights 2250	10/26/2010	Large Group	Masters' Colloquium III	N/A	N/A	2010-2011	2013	2	Quentin Eichbaum, Stephen Sandroni

Report for M1 year class of 2014

ID	Session Title	Session Date	Session Type	Course Title	Unit Title	CP Title	Academic Year	Grad Year	Hours	Faculty
19926	Population Dynamics and Border Health: Urbanization, Immigration, and Globalization	7/16/2010	Lecture	Society, Community and the Individual I	N/A	N/A	2010-2011	2014	1	Gary Simpson
19931	Community Assessment Experiential Activity (Interactive)	7/14/2010	Large / Small Group	Society, Community and the Individual I	N/A	N/A	2010-2011	2014	8	Theresa Byrd
19939	Mexican-American Culture on the Border	7/26/2010	Lecture	Society, Community and the Individual I	N/A	N/A	2010-2011	2014	1	Marco Diaz
19940	Promotora Model (Interactive)	7/26/2010	Lecture	Society, Community and the Individual I	N/A	N/A	2010-2011	2014	1	Theresa Byrd
19952	Promoting Health in Communities (Interactive)	8/27/2010	Lecture	Society, Community and the Individual I	N/A	N/A	2010-2011	2014	2	Theresa Byrd
22169	Community Assessment & What is Community? (Interactive)	7/13/2010	Lecture	Society, Community and the Individual I	N/A	N/A	2010-2011	2014	2	Theresa Byrd
22550	What is Culture and Why It Matters	8/2/2010	Large Group	Society, Community and the Individual I	N/A	N/A	2010-2011	2014	0.5	David Steele, Kathryn McMahon, Kathryn V. Horn, Theresa Byrd

ACID BASE

Report for the M1 year for the class of 2013

ID	Session Title	Session Date	Session Type	Course Title	Unit Title	CP Title	Academic Year	Grad Year	Hours	Faculty
18519	Cardiovascular Shock	3/16/2010	Lecture	Scientific Principles of Medicine II	Cardiovascular/ Respiratory	Abnormal BP Hypertension and Shock	2009-2010	2013	2.5	Herbert Janssen
18555	Congestive Heart Failure	3/25/2010	Lecture	Scientific Principles of Medicine II	Cardiovascular/ Respiratory	Dyspnea	2009-2010	2013	2	Kathryn McMahon, David Osborne, Herbert Janssen
19269	Cardiogenic Shock	3/25/2010	Large / Small Group	Medical Skills II	Cardiovascular/ Respiratory Systems	N/A	2009-2010	2013	2	Gordon Woods, Stephen Sandroni, Gordon Woods, Stephen Sandroni
18585	Respiratory Control of pH	4/1/2010	Lecture	Scientific Principles of Medicine II	Cardiovascular/ Respiratory	Dyspnea	2009-2010	2013	1.5	David Osborne, Herbert Janssen, Amy Trott

Report for the m2 year of the class of 2013

ID	Session Title	Session Date	Session Type	Course Title	Unit Title	CP Title	Academic Year	Grad Year	Hours	Faculty
19754	Distal Nephron	8/5/2010	Lecture	Scientific Principles of Medicine III	Renal / Endocrine	Disorders of Serum Na+	2010-2011	2013	1	Herbert Janssen
	Approach to Hyponatremia	8/9/2010	Large / Small Group	Medical Skills III	Renal / Endocrine	NA	2010-2011	2013	2	Gordon Woods
	Intrinsic Renal Disease	8/16/2010	TBL	Medical Skills III	Renal / Endocrine	NA	2010-2011	2013	2	Gordon Woods
22015	Abnormalities of Hydrogen Ion Concetration Scheme Presentation	8/18/2010	Lecture	Scientific Principles of Medicine III	Renal / Endocrine	Abnormalities of Hydrogen Ion Concentration	2010-2011	2013	1	Stephen Sandroni
22020	Metabolic Acid Base	8/19/2010	Lecture	Scientific Principles of Medicine III	Renal / Endocrine	Abnormalities of Hydrogen Ion Concentration	2010-2011	2013	2	David Osborne, Herbert Janssen
22022	Metabolic Acid Base (Lab)	8/19/2010	Lab	Scientific Principles of Medicine III	Renal / Endocrine	Abnormalities of Hydrogen Ion Concentration	2010-2011	2013	2	David Osborne, Herbert Janssen
	Abnormalities Of Hydrogen Ion Concentration	8/23/2010	TBL	Medical Skills III	Renal / Endocrine	NA	2010-2011	2013	2	Gordon Woods
	Endocrine Hypertension	9/13/2010	TBL	Medical Skills III	Renal / Endocrine	NA	2010-2011	2013	2	Gordon Woods

ID	Session Title	Session Date	Session Type	Course Title	Unit Title	CP Title	Academic Year	Grad Year	Hours	Faculty
23609	Acid based Balance in the Premature and Newborn	12/13/2010	Lecture	Scientific Principles of Medicine III	The Mind And Human Development	Prematurity/Depressed Exam of Newborn	2010-2011	2013	1	Amy Trott

Acid base for M1 class of 2014

21383	**Cardiovascular Shock**	**3/15/2011**	**Lecture**	**Scientific Principles of Medicine II**	**Cardiovascular/Respiratory**	**Abnormal BP Hypertension and Shock**	**2010-2011**	**2014**	**3**	**Herbert Janssen**
19879	Cardiogenic Shock	3/24/2011	Large / Small Group	Medical Skills II	Cardiovascular/ Respiratory Systems	N/A	2010-2011	2014	2	Gordon Woods
21400	Congestive Heart Failure	3/24/2011	Lecture	Scientific Principles of Medicine II	Cardiovascular/ Respiratory	Dyspnea	2010-2011	2014	2	Kathryn McMahon, David Osborne, Herbert Janssen
21416	Respiratory Control of pH	3/31/2011	Lecture	Scientific Principles of Medicine II	Cardiovascular/ Respiratory	Dyspnea	2010-2011	2014	1.5	Herbert Janssen

If there is no curriculum database or the database is incomplete, illustrate the information that is available and describe the sources of information that can be used to identify the presence of these topics in the curriculum?

Not applicable.

ED-38. The committee responsible for the curriculum, along with medical school administration and educational program leadership, must develop and implement policies regarding the amount of time students spend in required activities, including the total required hours spent in clinical and educational activities during clinical clerkships.

Attention should be paid to the time commitment required of medical students, especially during the clinical years. Students' hours should be set taking into account the effects of fatigue and sleep deprivation on learning, clinical activities, and student health and safety.

a. Describe how the curriculum committee or the relevant subcommittee(s), as well as course and clerkship leaders, is monitoring or will monitor the academic and clinical workload of students within and across individual courses and clerkships.

The Ilios curriculum management system enables us to maintain a precise listing of contact hours for each course and clerkship in the curriculum. The course committees described in ED-33 monitor hours and the course director is expected to report contact hours to the Curriculum and Educational Policy Committee (CEPC). In addition, the curriculum management system enables us to track required readings, written assignments, special projects, and other expectations requiring the commitment of student time. The senior associate dean for medical education monitors hours and expectations and, if he has concerns, he shares them first with the course directors. If modifications are not made or if the course directors disagree with the education dean's concerns, the issue can be referred to the CEPC for discussion. Thus far, CEPC discussion has not been necessary as appropriate adjustments have been made at the course level. The faculty have agreed that students will be given a minimum of 12 hours per week (3 half days) of unscheduled time for study.

In years 3 and 4, the clerkship director is responsible for monitoring workload including on-call responsibilities.

b. Summarize any school policies on medical student duty hours, including on-call requirements for clinical rotations. Describe how these policies are or will be disseminated to faculty, residents, and students.

The year 3 and 4 clerkship committee reached a consensus decision that medical student duty hours will follow those adopted for first year house officers based on ACGME regulations. Duty hours and call requirements are clearly described in each Block and clerkship syllabus. The clerkship director is responsible for ensuring that faculty and residents are aware of student duty hours and that they adhere to the policy.

c. What mechanisms will exist for reporting violations of duty hours policies?

Students have several avenues for reporting duty hour violations including reporting such violations to the clerkship director, director of student affairs, associate dean for student affairs, and the senior associate dean for medical education. The following item also appears on the end of clerkship evaluation: "In this rotation, duty hour policies were adhered to strictly."

See also information for Required Courses and Clerkships, Part A, items (A.) and (B.).

ED-46. A medical school must collect and use a variety of outcome data, including national norms of accomplishment, to demonstrate the extent to which its educational program objectives are being met.

Schools should collect outcome data on student performance during and after medical school appropriate to document the achievement of the school's educational program objectives. The kinds of outcome data that could serve this purpose include performance on national licensure examinations, performance in courses/clerkships and other internal measures related to educational program objectives, academic progress and program completion rates, acceptance into residency programs, and assessments of residency program directors and graduates on graduates' preparation in areas related to educational program objectives, including professional behavior.

a. Check all indicators that are being or will be used by the medical school to evaluate educational program effectiveness.

In the table below, indicators preceded by an 'X' are those that will be used to evaluate program objectives until such time as we have a graduating class. From that point on, program objective indicators preceded by an asterisk (*) will also be employed to track the progress of students graduating from the Paul L. Foster School of Medicine.

X	Results of USMLE/MCC or other national examinations
X	Student scores on internally developed examinations
X	Performance-based assessment of clinical skills (e.g., OSCEs)
*	Student responses on AAMC Medical School Graduation Questionnaire
X	Student evaluation of courses and clerkships
X	Student advancement and graduation rates
*	Match results
*	Specialty choice of graduates
*	Assessment of residency performance of graduates
*	Licensure rates of graduates
*	Specialty certification rates
*	Practice location of graduates
*	Practice type of graduates
X	Other: Progress Test

For each checked item, indicate

- ***How the data will be collected***
- ***What groups or individuals will review the data (e.g., curriculum committee, department chairs) and how frequently the reviews will occur***

USMLE (AND ALL NBME ADMINISTERED EXAMINATIONS)

Exam scores for the NBME customized exams, NBME Comprehensive Basic Science exams, clinical science NBME subject exams, and the USMLE Step exams will be reported to the school by the National Board. NBME scores will be disseminated to the college masters and to the appropriate course and clerkship directors for use in computing grades and for analyzing the effectiveness of instruction, particularly with respect to performance against national norms. NBME item analyses reports for the subject exams will allow course and clerkship directors to assess more accurately instructional strengths and weaknesses in their individual curricula and to make appropriate adjustments. Subject exam scores will also be a point of interest during internal in-depth reviews. Performance on Steps 1 and 2 of the USMLE will be monitored by the Office of Curriculum, Evaluation, and Accreditation, and by the Curriculum and Educational Policy Committee for overall school performance, including identification of any overall positive or negative trends and comparison of the school's performance against national norms. The curriculum will continue to be examined for ways to enhance integration and improve program quality.

INTERNAL EXAMINATIONS

Student performance on course exams is monitored by course and clerkship directors, the college masters, and the Office of Curriculum, Evaluation, and Accreditation. Exam content and structure as well as student performance are also included in the in-depth review process.

OSCEs

OSCEs will be an integral part of the Medical Skills course. These exams will be evaluated in the same manner and context as objective examinations.

STUDENT EVALUATION OF COURSES

Student evaluation of courses is a standard part of the curriculum evaluation process. A standardized on-line evaluation is used for all courses. The Office of Curriculum, Evaluation and Accreditation compiles course evaluation data and develops reports that are issued at least quarterly to the Curriculum and Educational Policy Committee, course directors, department chairs as appropriate, and the Dean. Course committees use the results of student evaluations as the basis for a qualitative assessment of the course, and this assessment complements the objective or quantitative data provided by examination scores. The Curriculum and Educational Policy Committee uses the evaluation results to assess the relationships between curricular features and outcomes and to help assess the degree to which curricular integration improves these outcomes.

STUDENT ADVANCEMENT AND GRADUATION RATES

This information is collected by the Office of Curriculum, Evaluation, and Accreditation and reported to the Grading and Promotions Committee and the Curriculum and Educational Policy Committee on an annual basis at the conclusion of each academic year. College masters are provided specific data for the students in their own college and summary data for the whole school. Trends in pass rates may signal that some curricular modification is necessary or that a certain segment of students may require extra attention

with respect to academic difficulties. Efforts to address such issues will typically focus on enhancing learning skills, developing an appreciation for individual learning styles, and modifying approaches to learning in the medical school environment.

PROGRESS TEST

PLFSOM has joined with 6 other medical school in the US in a "Progress Test Collaborative" which is coordinated by the Department of Medical Education at Southern Illinois University School of Medicine. The progress test consists of a total of 150 validated items that address diagnostic pattern recognition and clinical data interpretation. The progress test is given at matriculation (time 0) and is repeated annually up to graduation (time 4). This test enables schools to monitor student "progress" in diagnostic and clinical reasoning and to compare the performance of their students with that of students at other schools.

For U.S. Medical Schools only:

b. Indicate if students at your institution will be required to take or required to pass USMLE Steps 1 and 2. (check)

	Take	Pass
Step 1	X	X
Step 2 CK	X	X
Step 2 CS	X	X

See also Part A, item (b.) in this section, information for standard ED-47, and Required Course and Clerkship Forms.

ED-47. In assessing program quality, schools must consider student evaluations of their courses and teachers, as well as a variety of other measures.

It is expected that schools will have a formal process to collect and use information from students on the quality of courses and clerkships, which should include such measures as questionnaires (written or on-line), focus groups, or other structures data collection tools. Other measures could include peer review and external evaluation.

a. Summarize the ways in which information currently is collected from students on course quality.

1. Students are asked to complete an electronic standardized survey about their courses. This survey includes Likert scale responses as well as open-ended response prompts. The survey instruments are included in Section II, Appendix 13 a, b1-12.
2. The Student Curriculum and Evaluation Committee also meets with the senior associate dean for medical education and the director of assessment and evaluation to discuss student perspectives and to review outcome of the survey described above to provide explanation of students' comments on the course.
3. Informally the Student Curriculum and Evaluation Committee have chosen to collect information from their fellow students and provide the results of their own survey to the senior associate dean for medical education.

b. Describe any other individuals or groups providing information about course quality or the quality of faculty teaching (such as through peer assessment of teaching or course content).

The course committees (unit committees for the Scientific Principles of Medicine Course) meet at the end of the semester to review student evaluations, student performance on summative examinations and quizzes, and to share perceptions of course strengths, weaknesses, and recommendations for future changes.

c. Summarize how the quality of clerkships will be evaluated.

Students will be asked to complete on-line evaluations of their clerkship learning experiences, quality of teaching by residents and faculty, level of clinical responsibility, etc. As previously noted, these forms are now being developed by the director of assessment and evaluation in consultation with the members of the Clerkship Directors Committee. A copy of the latest draft of the instrument that we will use to collect data on the students' perspective on clerkship quality is in Section II, Appendix 13.

Also see information for ED-35.

END OF SECTION II