

The University of Texas Southwestern Medical School at Dallas

Educational Objectives of the Medical School

The Objectives are shown in relationship to the appropriate UT Southwestern course(s) that currently covers the subject and current evaluation methods. Additionally, each Educational Objective is linked to the appropriate ACGME Competency and LCME Standard.

Updated by a subcommittee of the Medical Education and Curriculum Committee

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Resources:

AAMC Medical Schools Objectives Project: <http://www.aamc.org/meded/msop/start.htm>

ACGME Outcome Project: <http://www.acgme.org/outcome>

LCME Accreditation Standards: <http://www.lcme.org/standard.htm>

UT Southwestern Medical School Curriculum

Note: Please contact Lynne Kirk with suggestions, corrections etc. lynne.kirk@utsouthwestern.edu 214-648-3434.

Last updated: 20 May 2008.

#	Learning Objectives	Courses	Evaluation Methods	LCME Standards	ACGME Competencies
1.0	The student, before graduation, must have demonstrated to the satisfaction of the faculty, knowledge of the:			ED-6	
1.1	Normal structure and function of the body (as an intact organism) and of each of its major organ systems	Anatomy Embryology Biology of Cells & Tissues Physiology Endocrinology Neuroscience SMIG* LCD*	Course Examinations (MCQ's), USMLE Part 1	ED-11	Medical Knowledge
1.2	Molecular, biochemical, and cellular mechanisms that are important in maintaining the body's homeostasis	Biochemistry Biology of Cells & Tissues Physiology Endocrinology Neuroscience Pharmacology SMIG* LCD*	Course Examinations (MCQ's), NBME Shelf exam, Small group cases, USMLE Part 1	ED-11	Medical Knowledge
1.3	Various causes (genetic, developmental, metabolic, toxic, microbiologic, autoimmune, neoplastic, degenerative, and traumatic) of maladies and the ways in which they operate on the body (pathogenesis)	Genetics Embryology Endocrinology Neuroscience Microbiology Pathology Pharmacology Clinical Medicine SMIG* LCD*	Course Examinations (MCQ's), NBME Shelf exam, Small group cases, USMLE Part 1, OSCE	ED-11, ED-12, ED-13	Medical Knowledge
1.4	Altered structure and function (pathology and pathophysiology) of the body and its major organ systems that are seen in various diseases and conditions, including aging.	Microbiology Pathology Clinical Medicine SMIG* LCD*	Course Examinations (MCQ's), NBME Shelf exam, Small group cases, OSCE, USMLE Part 1 and 2	ED-11 and ED-13	Medical Knowledge
1.5	Most frequent clinical, laboratory, roentgenologic, and pathologic manifestations of common maladies	Pathology Clinical Medicine Clerkships SMIG* LCD*	Course Examinations (MCQ's), NBME Shelf exam, Small group cases, OSCE, USMLE Part 1 and 2	ED-11, ED-12, ED-13	Patient Care, Medical Knowledge, Practice-based Learning
1.6	Important non-biological determinations of poor health and of the economic, psychological, social, and cultural factors that contribute to the development and/or continuation of maladies (e.g. domestic violence, cultural sensitivity)	Colleges Clerkships SMIG* LCD*	OSCE, USMLE Part 1 and 2	ED-10, ED-20, ED-21, ED-22	Medical Knowledge, Practice-based Learning
1.7	Principles of quality improvement, its use in patient care, and use of common patient safety/quality tools (fishbone diagrams, process mapping, etc.)	Clerkships Fourth year courses	QI Project		Medical Knowledge Practice-based Learning Systems-based Practice

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1.8	Epidemiology of common maladies within a defined population, and the systematic approaches useful in reducing the incidence and prevalence of those maladies	Pathology Clinical Medicine Clerkships SMIG* LCD*	Course Examinations (MCQ's), NBME Shelf exam, Small group cases, OSCE, USMLE Part 1 and 2	ED-11	Medical Knowledge, Practice-based Learning
1.9	Clinical experience as appropriate in the seven major disciplines: family medicine, internal medicine, obstetrics and gynecology, neurology, pediatrics, psychiatry, surgery and core senior rotations (acute care, ambulatory care and medicine subinternship)	Clerkships Senior Rotations	NBME shelf exams Clinical Skills Passports USMLE Part 2 Clinical Logbooks	ED-14, ED-15, ED-16	Patient Care, Medical Knowledge, Interpersonal & Communication Skills, Professionalism
1.10	Multidisciplinary areas such as geriatrics, emergency department, and primary care	Clerkships Senior Rotations	NBME shelf exams and USMLE Part 2	ED-14 and ED-17	
1.11	Relieving pain and ameliorating the suffering of patients	Pharmacology Clinical Medicine Clerkships	Course Examinations (MCQ's), NBME Shelf exam, Small group cases, OSCE, USMLE Part 1 and 2	ED-13	Patient Care, Medical Knowledge, Practice-based Learning
2.0	The student, before graduation, must have demonstrated for the faculty, an understanding of the:			ED-6	
2.1	Power of the scientific method in establishing the causation of disease and efficacy of traditional and non-traditional therapies	Genetics Pathology Clinical Medicine Pharmacology Clerkships Senior Rotations SMIG* LCD*	Small group cases Clerkships OSCE	ED-11, ED-12	Medical Knowledge, Practice-based Learning
2.2	Ethical aspects of medicine to include ethical principles of research involving human subjects, the common presentations of ethical conflict in medical practice, and the ethical roles and responsibilities of the physician to society.	Colleges Human Behavior Clerkships Senior Rotations SMIG* LCD*	Small group cases Clerkships OSCE	ED-20, ED-17A	Professionalism
2.3	Epidemiological factors that place individuals at risk for disease or injury, basic concepts of Bayesian analysis, and to select appropriate tests for detecting patients at risk for specific diseases or in the early stages of disease, and to determine strategies for responding appropriately	Pathology Clinical Medicine Clerkships SMIG* LCD*	Small Group (cases & clerkships), OSCE, USMLE Part 1 and 2	ED-11, ED-17A	Patient Care, Professionalism, Systems-based Practice

#	Learning Objectives	Courses	Evaluation Methods	LCME Standards	ACGME Competencies
3.0	The student, before graduation, must have demonstrated for the faculty, knowledge of and ability to:	Clerkships Senior Rotations	Clinical Skills Passports Clinical Logbooks	ED-6	
(above apply to all sections)					
3.1	Obtain an accurate medical history that covers all essential aspects of the history, including issues related to age, gender, and socio-economic status	Colleges Clinical Medicine Clerkships Senior Rotations	Resident and faculty observation, OSCEs in MS1 & MS2	ED-13, ED-14, ED-15, ED-16, ED-19	Patient Care, Interpersonal & Communication Skills, Professionalism
3.2	Perform both a complete and an organ system specific examination, including a mental status examination	Colleges Clinical Medicine Clerkships Senior Rotations	Resident and faculty observation, OSCE in MS2	ED-13, ED-14, ED-15, ED-16	Patient Care
3.3	Reason inductively and deductively in solving clinical problems	Colleges Clinical Medicine Clerkships Senior Rotations	Chart review; Case presentations; Write-ups, OSCE	ED-13, ED-14, ED-15, ED-16	Patient Care, Medical Knowledge
3.4	Retrieve (from electronic databases or other resources), manage, and utilize biomedical information for solving problems and making decisions that are relevant to the care of individuals and populations	Clinical Medicine Clerkships Senior Rotations	Chart review; Case presentations; Write-ups; OSCE Resident and faculty observation,	ED-7	Patient Care, Practice-based Learning
3.5	Perform laboratory or other practical exercises that entail accurate observation of biomedical phenomenon and critical analyses of data	Anatomy Biology of Cells & Tissues Microbiology Pathology Clinical Medicine Clerkships Senior Rotations SMIG* LCD*	Case presentations; Resident and faculty observation, OSCE; Practical examinations	ED-12	Patient Care, Medical Knowledge, Practice-based Learning
3.6	Perform routine technical procedures including at a minimum venipuncture, inserting an intravenous catheter, arterial puncture, inserting a nasogastric tube, inserting a foley catheter, and suturing lacerations	Colleges Clinical Medicine Clerkships Senior Rotations	Resident and faculty observation, OSCE Clinical Skills Passports (documentation)	ED-13, ED-14, ED-15, ED-16	Patient Care
3.7	Interpret the results of commonly used diagnostic procedures	Colleges Clinical Medicine Clerkships Senior Rotations	Resident and faculty observation; Chart review; Write-ups; Case presentations; USMLE Part 2; OSCE	ED-13, ED-14, ED-15, ED-16	Patient Care, Medical Knowledge
3.8	Construct appropriate management strategies (both diagnostic and therapeutic) for patients with common conditions, both acute and chronic, including medical, psychiatric, and surgical conditions, and those requiring short- and long-term rehabilitation, and end-of-life- care.	Clinical Medicine Clerkships Senior Rotations	Resident and faculty observation; Chart review; Write-ups; Case presentations; USMLE Part 2; OSCE	ED-13, ED-14, ED-15, ED-16	Patient Care, Medical Knowledge

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3.9	Recognize patients with immediately life-threatening cardiac, pulmonary, or neurological conditions regardless of etiology, and to institute appropriate initial therapy	Clinical Medicine Clerkships Senior Rotations	Resident and faculty observation; Case presentations; USMLE Part 2; OSCE	ED-13, ED-14, ED-15, ED-16	Patient Care, Medical Knowledge
3.10	Recognize and outline an initial course of management for patients with serious conditions requiring critical care	Clerkships Senior Rotations	Resident and faculty observation; Case presentations; USMLE Part 2; OSCE	ED-13, ED-14, ED-15, ED-16, ED-17	Patient Care, Medical Knowledge
3.11	Communicate effectively, both orally and in writing, with patients, patients' families, colleagues, nurses and other staff with whom physicians must exchange information in carrying out their responsibilities	Colleges Clerkships Senior Rotations SMIG* LCD*	Resident and faculty observation; Case presentations; Chart review	ED-19, ED-20, ED-21, ED-22	Patient Care, Practice-based Learning, Interpersonal & Communication Skills
4.0	The student, before graduation, must have demonstrated for the faculty, knowledge of and ability to:			ED-6	
4.1	Effectively use clinical information systems to: a. Retrieve patient-specific information or data from a clinical information system. b. Display selected subsets of information available about a given patient. c. Record in clinical information systems specific findings about a patient. d. Record orders directing the further care of the patient.	Clerkships Senior Rotations	Resident and faculty observation; Case presentations; Chart review	ED-27, ED-28	Patient Care Practice-based Learning
4.2	Interpret laboratory tests, demonstrating the following: a. Knowledge of the limitations of standard laboratory measurements. b. Ability to integrate clinical and laboratory findings.	Colleges Clinical Medicine Clerkships Senior Rotations	Resident and faculty observation; Case presentations; Chart review	ED-12, ED-13	Medical Knowledge Patient Care
4.3	Incorporate uncertainty explicitly into clinical decision making, demonstrating the ability to quantify and communicate the degree of certainty associated with specific items of scientific and clinical information.	Clinical Medicine Clerkships Senior Rotations SMIG* LCD*	Resident and faculty observation; Case presentations; Chart review	ED-6, ED-7, ED-19	Medical Knowledge Patient Care Interpersonal & Communication Skills Practice-based Learning
4.4	Identify and locate, when possible, the crucial pieces of missing clinical information, and determine when it is appropriate to act on incomplete information.	Clerkships Senior Rotations	Resident and faculty observation; Case presentations; Chart review	ED-6, ED-7, ED-28	Medical Knowledge Patient Care Practice-based Learning Systems-based Practice

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4.5	Integrate verbal and statistical sources of medical knowledge with the facts of a specific clinical case.	Colleges Clinical Medicine Clerkships Senior Rotations	Resident and faculty observation; Case presentations; Chart review	ED-6, ED-7, ED-28	Medical Knowledge Patient Care
4.6	Critically use decision support tools to assess and balance textbook and journal articles with diagnostic expert systems	Colleges Clinical Medicine Clerkships Senior Rotations	Resident and faculty observation; Case presentations; Chart review	ED-6, ED-7, ED-28	Medical Knowledge Practice-based Learning
4.7	Assess and disseminate advisories and alerts issued from a computer based record.	Clerkships Senior Rotations	Resident and faculty observation; Chart review	ED-6, ED-7	Medical Knowledge Practice-based Learning
4.8	Formulate a treatment plan, demonstrating the ability to express the relative certainties of a differential diagnosis and the relative risks and benefits of outcomes and treatment options.	Colleges Clinical Medicine Clerkships Senior Rotations	Resident and faculty observation; Case presentations; Chart review	ED-6, ED-7, ED-28	Medical Knowledge Patient Care
4.9	Use available information resources and tools: a. Medline and other relevant bibliographic databases. b. Textbooks and reference sources. c. Diagnostic expert systems. d. Medical internet resources.	Colleges Clinical Medicine Clerkships Senior Rotations	Resident and faculty observation; Case presentations; Chart review	ED-6, ED-7	Medical Knowledge Patient Care
4.10	Understand the basic types of clinical studies, including case report and case series, case-control studies, cohort studies, and randomized controlled clinical trials, the advantages and limitations of each kind of study, and how each type has contributed and continues to add to the body of medical knowledge, the role of randomization and blinding or masking in clinical research, types of bias in observational studies, including definition bias, information bias, selection bias, and confounding, and the concepts underlying the common parametric and nonparametric statistical methods used in analyzing research data.	Colleges Clinical Medicine Clerkships Senior Rotations		ED-17A	Practice-based Learning Medical Knowledge Patient Care
4.10	Retrieve information by: a. Performing database searches using logical (Boolean) operators, in a manner that reflects understanding of medical language, terminology and the relationships among medical terms and concepts. b. Refine search strategies to improve relevance and completeness of retrieved items.	Colleges Clinical Medicine	Small group exercises	ED-7	Practice-based Learning Systems-based Practice
4.11	Use a standard bibliographic application to download citations from a search and organize them into a personal database.	Colleges Clinical Medicine	Small group exercises	ED-7	Practice-based Learning
4.12	Identify and acquire full-text electronic documents available from the World Wide Web or a local "virtual" library.	Colleges Clinical Medicine	Small group exercises	ED-7	Practice-based Learning

#	Learning Objectives	Courses	Evaluation Methods	LCME Standards	ACGME Competencies
4.13	Filter, evaluate, and reconcile information, demonstrating the following: a. Knowledge of the factors that influence the accuracy and validity of information in general. b. Ability to discriminate between types of information sources in terms of their currency, format (for example a review vs. an original article), authority, relevance, and availability. c. Ability to weigh conflicting information from several sources and reconcile the differences. d. Ability to critically review a published research report. e. Knowledge of copyright and intellectual property issues, especially with regard to materials that are retrieved electronically.	Colleges Clinical Medicine Clerkships Senior Rotations	Resident and faculty observation; Case presentations; Chart review	ED-6, ED-7, ED-28	Medical Knowledge Patient Care Practice-based Learning Systems-based Practice
4.14	Use multiple information sources for problem solving.	Colleges Clinical Medicine Clerkships Senior Rotations	Resident and faculty observation; Case presentations; Chart review	ED-6, ED-7, ED-28	Medical Knowledge Patient Care Practice-based Learning
4.15	Maintain a healthy skepticism about the quality and validity of all information. (This includes recognition that technology which provides new capabilities also has potential to introduce new sources of error.)	Colleges Clinical Medicine Clerkships Senior Rotations	Resident and faculty observation; Case presentations; Chart review	ED-7, ED-28	Medical Knowledge Patient Care Practice-based Learning
4.16	Make decisions based on evidence, when such is available, rather than opinion.	Colleges Clinical Medicine Clerkships Senior Rotations SMIG* LCD*	Resident and faculty observation; Case presentations; Chart review	ED-7, ED-28	Medical Knowledge Patient Care Practice-based Learning
4.17	Maintain awareness of the many ways information becomes lost or corrupted and the need to take appropriate preventative action (for example, routinely employing backup procedures for personal and institutional data).	Colleges Clinical Medicine Clerkships Senior Rotations	Resident and faculty observation; Case presentations;	ED-7, ED-28	Practice-based Learning Systems-based Practice
4.18	Protect confidentiality of private information obtained from patients, colleagues, and others.	Colleges Clinical Medicine Clerkships Senior Rotations	Resident and faculty observation; Case presentations; Chart review	ED-23	Practice-based Learning Systems-based Practice

#	Learning Objectives	Courses	Evaluation Methods	LCME Standards	ACGME Competencies
5.0	Before graduation, the student must demonstrate to the satisfaction of the faculty, the following:			ED-6	
A. Interactions with Professionals					
5.1	Students' interactions reflect a spirit of cooperation and respect in working with members of the health care team including patients and community	Colleges Clinical Ethics Clerkships Senior Rotations SMIG* LCD*	Resident and faculty observation; OSCEs in MS1 and MS2	ED-19	Practice-based Learning, Professionalism, Systems-based Practice
5.2	An understanding of, and respect for, the roles of other health care professionals, and of the need to collaborate with others in caring for individual patients and in promoting the health of defined populations	Clerkships Senior Rotations SMIG* LCD*	Resident and faculty observation	ED-7, ED-10	Patient Care, Interpersonal and Communication Skills, Systems-based Practice
5.3	Knowledge of various approaches to the organization, financing, and delivery of health care	Clerkships Senior Rotations	Resident and faculty observation	Not in LCME Stds	Systems-based Practice
B. Responsibility to Patients and Society					
5.4	Student should exhibit tolerance towards the values and beliefs of others serving and served by the health care system, should facilitate the clarification and negotiation of differences in values and beliefs in others, and should avoid the use of physician authority to advance personal values and beliefs of a nonclinical nature	Human Behavior Colleges Clinical Medicine Clerkships Senior Rotations	MCQ's, Resident and faculty observation; Essays; OSCE	ED-21, ED-22, ED-23	Patient Care, Professionalism
5.5	Compassionate treatment of patients, and respect for their privacy and dignity	Human Behavior Colleges Clinical Ethics Clinical Medicine Clerkships Senior Rotations	Resident and faculty observation; OSCEs in MS1 and MS2	ED-21, ED-22, ED-23	Patient Care, Interpersonal and Communication Skills, Professionalism
5.6	Honesty and integrity in all interactions with patients' families, colleagues, and others with whom physicians must interact in their professional lives.	Colleges Clinical Medicine Clerkships Senior Rotations	Resident and faculty observation	ED-23	Patient Care, Interpersonal and Communication Skills, Professionalism
5.7	A commitment to advocate the interests of one's patients over one's own selfish interests	Colleges Clinical Medicine Clerkships Senior Rotations	Resident and faculty observation	ED-22, ED-23	Patient Care, Interpersonal and Communication Skills, Professionalism
5.8	An understanding of the threats to medical professionalism posed by the conflicts of interest inherent in various financial and organizational arrangements for the practice of medicine	Colleges Clerkships Senior Rotations	Resident and faculty observation	Not in LCME Stds	Patient Care, Professionalism, Systems-based Practice

#	Learning Objectives	Courses	Evaluation Methods	LCME Standards	ACGME Competencies
5.9	A commitment to provide care to patients who are unable to pay and to advocate for access to health care for members of traditionally underserved populations	Colleges Clerkships Senior Rotations	Resident and faculty observation	ED-10	Patient Care, Professionalism, Systems-based Practice
5.10	Students demonstrate personal qualities of reliability, dependability, open-mindedness, and curiosity	Human Behavior Colleges Clerkships Senior Rotations	Observation, Record Review	ED-23	Patient Care, Professionalism
5.11	Students should understand and pursue a balance between their professional and personal life	Student Affairs Office	Mental Health Clinic Graduation Questionnaire	ED-23	Patient Care, Professionalism
5.12	Students must respect patient (and physician) confidentiality, demonstrating knowledge of the legal, ethical, and medical issues surrounding patient documentation, including confidentiality and data security and ability to use security-directed features of an information system.	Colleges Clinical Medicine Clerkships Senior Rotations	Resident and faculty observation; Case presentations; Chart review	ED-23	Professionalism Systems-based Practice
C. Life-long Learning					
5.13	Performance that steadily improves as a result of self-reflection, critical self-appraisal and openness to feedback	Clerkships Senior Rotations SMIG* LCD*	Observation, Record Review	ED-5	Practice-based Learning, Professionalism
5.14	The capacity to recognize and accept limitations in one's knowledge and clinical skills, and a commitment to continuously improve one's knowledge and ability	Clerkships Senior Rotations SMIG* LCD*	Observation, Record Review	ED-5	Practice-based Learning, Professionalism
5.15	Ability to engage in lifelong learning in order to maintain sufficient familiarity with scientific advances to ensure they are integrated appropriately with patient care	Pathology Clinical Medicine Clerkships Senior Rotations SMIG* LCD*	Small Group (cases & clerkships)	ED-5	Practice-based Learning
5.16	Have opportunities to participate in service-learning	Colleges Electives		IS-14-A	Patient Care

SMIG* (Science of Medicine Interest Group)

LCD* (Learning Community Days)