

I. INSTITUTIONAL SETTING

BACKGROUND INFORMATION ABOUT THE MEDICAL SCHOOL

- a. **Insert a copy of the medical school's current entry in the AAMC *Directory of American Medical Education* and indicate the year of the entry.**

See following two pages.

Please note that the correct year for the data on this entry is 2012.

University of Louisville School of Medicine

Health Sciences Center

Abell Administration Center, 323 East Chestnut Street

Louisville, Kentucky 40202

502-852-1499 (dean's office); 502-852-1484 (fax); 502-852-5555 (general information) Web site: www.louisville.edu/medschool

Medical education in Louisville began on February 2, 1833, with the granting of a charter for the Louisville Medical Institute. The medical school is part of the health sciences center.

Type: public

***2011 total enrollment:** 644

University Officials

0010

President	James R. Ramsey, Ph.D.	0020
Executive Vice President for Health Affairs	David L. Dunn, M.D., Ph.D.	0030

Medical School Administrative Staff

0040

Dean	Edward C. Halperin, M.D.	0045
Vice Dean for Academic Affairs and Associate Vice President	David L. Wiegman, Ph.D.	0050
Vice Dean for Clinical Affairs	Richard E. Goldstein, M.D.	0055
Vice Dean for Research	Russell A. Prough, Ph.D.	0060
Senior Associate Dean for Student and Academic Affairs	Toni M. Ganzel, M.D.	0065
Associate Dean for Academic Affairs	V. Faye Jones, M.D.	0067
Associate Dean for Admissions	Stephen Wheeler, M.D.	0070
Associate Dean for Faculty Affairs	Tracy D. Eells, Ph.D.	0080
Associate Dean for Graduate Medical Education	John L. Roberts, M.D.	0085
Associate Dean for Medical Education	Ruth Greenberg, Ph.D.	0095
Associate Dean, Postdoctoral Affairs	Thomas E. Geoghegan, Ph.D.	0097
Associate Dean for Research	Peter Rowell, Ph.D.	0100
Associate Dean for Trover Campus	William J. Crump, M.D.	0105

Institute/Center Directors

0160

Center for Autism	Joseph Hersh, M.D., and Allan Josephson, M.D.	0163
Center for Health Hazard Preparedness	Ronald M. Atlas, Ph.D., and Richard D. Clover, M.D.	0170
Center for Environmental Genomics and Integrative Biology	Kenneth S. Ramos, Ph.D.	0172
Center for Genetics and Molecular Medicine	Ronald Gregg, Ph.D.	0175
Depression Center	Jesse Wright, M.D.	0177
Diabetes and Obesity Center	Aruni Bhatnagar, M.D.	0178
Gheens Center on Aging	Eugenia Wang, Ph.D.	0180
Institute for Cellular Therapeutics	Suzanne T. Ildstad, M.D.	0190
Institute for Molecular Cardiology	Roberto Bolli, M.D.	0195
James Graham Brown Cancer Center	Donald M. Miller, M.D., Ph.D.	0200
Kentucky Spinal Cord Injury Research Center	Scott R. Whittemore, Ph.D.	0210
Price Institute for Surgical Research	Susan Galandiuk, M.D.	0220
University of Louisville Birth Defects Center	Robert M. Greene, Ph.D.	0225
Cardiovascular Innovation Institute	Stuart Williams, Ph.D.	0228

Department and Division or Section Chairs

0230

Basic Sciences

0235

Anatomical Sciences and Neurobiology	Fred J. Roisen, Ph.D.	0240
Biochemistry and Molecular Biology	Ronald G. Gregg, Ph.D.	0245
Microbiology and Immunology	Robert D. Stout, Ph.D.	0250
Pathology and Laboratory Medicine	Ronald J. Elin, M.D., Ph.D.	0255
Pharmacology and Toxicology	David W. Hein, Ph.D.	0260
Physiology and Biophysics	Irving G. Joshua, Ph.D.	0265

Clinical Sciences

0270

Anesthesiology and Perioperative Medicine	Mark Boswell, M.D.	0275
Emergency Medicine	Daniel F. Danzl, M.D.	0280
Family and Geriatric Medicine	James G. O'Brien, M.D.	0285
Medicine	Jesse Roman, M.D.	0290
Cardiovascular Medicine	Roberto Bolli, M.D.	0300
Dermatology	Jeffrey P. Callen, M.D.	0305

Clinical facilities: University of Louisville Hospital, Kosair Children's Hospital, VA Medical Center, James Graham Brown Cancer Center. **Other affiliates:** The Bingham Child Guidance Clinic Inc., Central State Hospital, Norton Audubon Hospital, Frazier Rehabilitation Center, Jewish Hospital, Norton Hospital, Portland Family Health Center, Trover Campus (Madisonville).

University of Louisville School of Medicine: KENTUCKY

Endocrinology and Metabolism	Stephen J. Winters, M.D.	0310
Gastroenterology, Hepatology, and Nutrition	Kristine Krueger, M.D.	0315
General Internal Medicine, Palliative Medicine, and Medical Education	Ann Shaw, M.D.	0320
Infectious Diseases	Julio A. Ramirez, M.D.	0325
Medical Oncology and Hematology	Donald M. Miller, M.D., Ph.D.	0330
Nephrology	Eleanor Lederer, M.D.	0335
Pulmonary, Critical Care, and Sleep Disorders	Rodney Folz, M.D., Ph.D.	0340
Rheumatology	Michael J. Edwards, M.D. (Acting)	0345
Neurological Surgery	Jonathan Hodes, M.D.	0350
Neurology	Robert P. Friedland, M.D.	0355
Obstetrics, Gynecology, and Women's Health	Sharmila Makhija, M.D.	0360
Endocrinology	Steven T. Nakajima, M.D.	0365
General Gynecology	James Shwayder, M.D.	0367
General Obstetrics and Gynecology	Margarita Terrasa, M.D.	0368
Family Planning and Outpatient Clinic Director	Elaine Stauble, M.D.	0370
Maternal and Fetal Medicine	Jeffrey King, M.D.	0375
Pediatric and Adolescent Gynecology	Paige Hertweck, M.D.	0377
Oncology	Lynn Parker, M.D.	0380
Urogynecology	Susan B. Tate, M.D.	0383
Ophthalmology and Visual Sciences	Henry J. Kaplan, M.D.	0385
Orthopedic Surgery	Craig Roberts, M.D.	0390
Pediatrics	Gerard P. Rabalais, M.D.	0395
Adolescent and Rheumatology	Kenneth N. Schikler, M.D.	0400
Allergy and Immunology	James L. Sublett, M.D.	0405
Cardiology	Christopher L. Johnsrude, M.D. (Acting)	0415
Child Behavior and Evaluation and Genetics	Joseph H. Hersh, M.D.	0420
Critical Care	Vicki L. Montgomery, M.D.	0425
Emergency Pediatrics	Ronald I. Paul, M.D.	0430
Endocrinology	Michael Foster, M.D. (Acting)	0433
Forensic Medicine	Melissa L. Currie, M.D.	0434
Gastroenterology	Thomas C. Stephen, M.D.	0435
General Inpatient Medicine	Jeffrey Grill, M.D.	0436
General Pediatrics	Salvatore J. Bertolone, M.D.	0437
Hematology and Oncology	Salvatore J. Bertolone, M.D.	0440
Infectious Diseases	Gary Marshall, M.D.	0445
International Pediatrics	George Rodgers, M.D., Ph.D.	0447
Neonatology	David H. Adamkin, M.D.	0450
Nephrology	Salvatore J. Bertolone, M.D. (Acting)	0455
Pathology	Robert F. Debski, M.D.	0460
Pulmonary and Cystic Fibrosis	Nemr S. Eid, M.D.	0470
Sleep Medicine	Vincent McCarthy, M.D.	0473
Psychiatry and Behavioral Sciences	Allan Tasman, M.D.	0480
Addictions Psychiatry	Bill Barclay, M.D.	0481
Adult Psychiatry	David A. Casey, M.D.	0482
Children, Adolescent & Family Psychiatry	Allan M. Josephson, M.D.	0483
Consultation/Liaison (Psychosomatic) Psychiatry	Robert Frierson, M.D.	0484
Emergency Psychiatry	Christina Terrell, M.D.	0485
Geriatric Psychiatry	David Casey, M.D.	0486
Memory Disorders	Ben Schoenbachler, M.D.	0487
Mood Disorders	Jesse Wright, M.D., Ph.D.	0488
Women's Mental Health	Joyce Spurgeon, M.D.	0489
Radiation Oncology	Shiao Woo, M.D.	0495
Radiology	Gregory C. Postel, M.D.	0500
Surgery	Kelly M. McMasters, M.D., Ph.D.	0505
Colon-Rectal Surgery	Susan Galandiuk, M.D.	0510
Communicative Disorders	David Cunningham, Ph.D.	0511
Endoscopy	Gary C. Vitale, M.D.	0520
General	J. David Richardson, M.D.	0525
Oncology	Robert C. Martin, M.D.	0535
Otolaryngology	Jeffrey M. Bumpous, M.D.	0540
Pediatric	Mary E. Fallat, M.D.	0545
Plastic and Reconstructive	Bradon Wilhelmi, M.D.	0550
Thoracic and Cardiovascular	Mark Slaughter, M.D.	0555
Transplant	Michael Marvin, M.D.	0560
Vascular	Charles Ross, M.D.	0565
Urology	Murali Ankem, M.D.	0570

b. Indicate on a separate page any changes in administrative positions or personnel that have taken place since the directory was published.

Executive Vice President for Health Affairs	David L Dunn, MD, PhD
Dean (Interim)	Toni M Ganzel, MD, MBA
Vice Dean for Clinical Affairs	(Position deleted)
Director of Administration and Finance	Maurice Snook, CPA
Vice Dean for Research (Interim)	Dale Schuschke, PhD
Associate Dean for Students and Minority Initiatives	(title change)
Associate Dean for Faculty	Jill Suttles, PhD
Associate Dean for Medical Education	M. Ann Shaw, MD
Associate Dean for Accreditation	Ruth B. Greenberg, PhD
Associate Dean for Research (Interim)	Christopher States, PhD
Associate Dean for Student Affairs (Interim)	Michael Ostapchuk, MD, MEd
Assistant Dean for Administration	Kristine Krueger, MD
Assistant Dean for Clinical Education	Sheldon Bond, MD
Assistant Dean for Student Affairs (Interim)	Rita Fleming, MD
Assistant Dean for CME and Professional Development	W. Daniel Cogan, EdD
Chief, General Internal Medicine	Barbara Casper, MD, FACP
Chair, Anatomical Sciences and Neurobiology	William Guido, PhD
Chair Microbiology and Immunology (Interim)	Jill Suttles, PhD

c. Provide a brief history of the medical school, noting any key points in the school's historical development. History follows immediately below and is also available at:

<http://netapps.louisville.edu/MEDCourseCatalog/?id=8>

THE HISTORY OF THE SCHOOL OF MEDICINE

The University of Louisville School of Medicine is a vibrant institution with a proud heritage as one of the most comprehensive medical facilities in the southeastern United States. The school traces its beginnings to 1833, when the Louisville Common Council set up a committee to investigate the possibility of establishing a medical college in the city.

It was a boom time for Louisville, which by the early 1830s had become a burgeoning center of inland transportation. With improved river travel made possible by the steamboat, Louisville grew to be one of the largest cities in the area and sought to develop its own cultural institutions.

With the urging of community-minded citizens like town trustee James Guthrie, the city government appropriated funds for a new medical school at Eighth and Chestnut Streets. The Louisville Medical Institute began classes in temporary quarters in the fall of 1837. A few weeks later, the 80 students and 7 faculty members moved into the splendid Greek Revival structure designed by Kentucky architect Gideon Shryock. The school instituted clinical teaching in the wards of the public hospital, then known as the Louisville City Hospital, as an integral part of the medical curriculum. Founding faculty included several of the most distinguished professors from Lexington's Transylvania University.

By the early 1840s, the Institute was flourishing. Students traveled from all over the southern and western United States to attend its lectures and clinics. Despite initial municipal funding, the school operated on a proprietary basis, enjoying considerable autonomy. The school's library was one of the finest in the country, including numerous volumes purchased in Europe. Gas lamps provided brilliant night-time lighting for specially equipped rooms. In 1846 the Louisville Medical Institute became the Medical Department of the newly formed University of Louisville. In the ensuing years of the 19th century, Louisville boasted six more medical colleges, most of which would eventually be absorbed by the University Medical Department.

Some of the best medical minds of their day taught medicine at Eighth and Chestnut and in the wards of City Hospital. Doctors such as Daniel Drake, J. Lawrence Smith, Benjamin Silliman, Charles Wilkins Short and David Wendell Yandell forged a national reputation for the school.

An adjunct to clinical teaching was the school's institution of outpatient dispensary care for indigents during the 1850-51 session. Other improvements in medical education were instituted even earlier. In 1841, Samuel D. Gross, a Professor of Surgery, set up one of the country's first surgical laboratories, which was used for the study of wounds in dog intestines. The school's medical practitioners then applied information gleaned from such research to the care of patients.

On Dec. 31, 1856, the institute's Greek Revival structure was destroyed by fire. Thankfully, the library and its prized contents were saved. A new building was constructed almost immediately and was ready for occupancy in 1857. The history of the structure known now as the "Old Medical School" began in April 1891, when a tract of land on the corner of First and Chestnut Streets was deeded to rival Louisville

Medical College. The University of Louisville acquired the building when it absorbed Louisville Medical College in 1908.

Reforms in medical education already were in progress under Dean James M. Bodine when Abraham Flexner, a Louisvillian whose brother Simon was a medical school alumnus and director of Rockefeller Institute for Medical Research, released a report on U.S. medical education that would shape the school's course for many years. Flexner's 1910 report stimulated improved curriculum, admission and graduation standards all over the United States. Local government finally saw the need for additional resources in Louisville and began to make an annual contribution to its medical school. Increased support came with the opening of a much-expanded City Hospital in 1914. The close association between the medical school and the hospital offered students an unusual breadth of practical experience.

About this time the hospital began "accident service" when, in 1911, the facility launched the nation's first trauma care center. Dr. R. Arnold Griswold refined this innovation in the 1930s and '40s with a network that served as the forerunner of Louisville's modern Emergency Medical Service and the U of L Trauma Center.

While the 1930s brought hard times to the country, the university was able to continue its expansion, and in March 1937, the medical school began laying the groundwork for a centennial celebration. Plans came to a halt, however, when the Ohio River overflowed its banks, causing the dismissal of downtown classes. Before leaving on Jan. 22, medical students moved the bulk of the library from the basement to the school's first floor. That foresight salvaged the valuable volumes. The medical school building was not structurally damaged, but classes didn't convene for two weeks. After classes resumed, it was another two weeks before utilities were fully restored.

During World War II, the school negotiated a contract with the Federal government to educate students for the armed forces' medical corps. Throughout much of the 1940s, the school year consisted of two 16-week semesters, with a new class entering every nine months. New courses of instruction were introduced for orientation to military medicine, and the institution's facilities and energies were severely stretched.

These chapters in the school's history also were marked by great productivity as the school continued to extend its emphasis on hands-on clinical instruction and a growing list of specialty training programs. Then, as in every era, memorable men and women were part of the school's history. Among them were John Walker Moore, Dean from 1929-1949; Sidney I. Kornhauser, Chair of the Anatomy Department from 1922 to 1958; and neurosurgeon R. Glen Spurling.

By 1960, the school desperately needed more space. Officials began planning to construct a modern center that would house all the university's health-related programs. The first step in that plan was the opening of the 120,000 square foot Medical-Dental Research Building in 1963 under the administration of Dean Donn Smith. Smith also coordinated the construction of new buildings to house the medical and dental schools, an adjacent library, and laboratory buildings, all of which opened in 1970 and are known collectively as the Health Sciences Center. On July 1, 1970, U of L was accepted into the Commonwealth's system of state-supported universities, and Deans Douglas M. Haynes and Arthur H. Keeney spent the rest of the decade ushering in a new era of growth.

Meanwhile, at the request of Harold Boyer, Vice President for Health Affairs, the state appropriated funds for a new teaching hospital and ambulatory care center. The hospital, operated by the non-profit University Medical Center Inc., continues to serve as the medical school's primary teaching facility, providing a full range of diagnostic, emergency, therapeutic, and surgical services. The school has strong teaching relationships with Jewish Hospital, Kosair Children's Hospital, Norton Hospital, The Veterans Administration Medical Center, and the James Graham Brown Cancer Center, as well as numerous other facilities in the community.

The 1980s and '90s saw unprecedented growth on U of L's Health Sciences Center with the establishment of partnerships that provided unprecedented learning opportunities. Among these partnerships is Louisville Medical Center, a unique organization dedicated to leading-edge research, diagnosis, and treatment. Composed of the University of Louisville Health Sciences Center, University of Louisville Hospital, Jewish Hospital, Norton Hospital, Kosair children's Hospital, the James Graham Brown Cancer Center and nearly 200 other partners, LMC serves more than 500,000 patients a year.

Its accomplishments are lengthy, but highlights include the nation's first successful hand transplant surgery and groundbreaking work in artificial heart transplants. Such advanced activities require equally advanced research facilities, and the university launched an ambitious plan to make U of L's Health Sciences Center one of the country's leading institutions for medical discovery. In 1999, the university dedicated the state-of-the-art Donald E. Baxter, M.D., Biomedical Research Building, and a companion facility, the Delia B. Baxter Biomedical Research Building was dedicated in 2003.

Thanks to an infusion of money from the Kentucky General Assembly and Kentucky's Research Challenge Trust Fund, world-class researchers began relocating to LMC and U of L's Health Sciences Center. Between 1999 and 2006, the School of Medicine experienced the fastest growth in National Institutes of Health Research funding of any medical school in the nation.

In November 2006, the University recruited Edward C. Halperin, M.D., M.S., F.A.C.R. as Dean of the School of Medicine. Halperin previously served as Vice Dean and Professor of Radiation Oncology, Pediatrics and Medical Education at Duke University's School of Medicine and Associate Vice Chancellor for Academic Affairs at Duke's medical center, Halperin, a practicing physician in pediatric radiation oncology, continued his clinical practice at U of L's James Graham Brown Cancer Center. In March 2012, Halperin left to become CEO and Chancellor for Health Affairs at New York Medical College. Tony M. Ganzel, M.D., M.B.A. was named Interim Dean.

Construction on campus continued, with an additional 200,000 square feet of research space constructed on the east side of the Health Sciences campus housing laboratories associated with the Brown Cancer Center. Additionally, a state-of-the-art faculty practice building opened in 2008.

Under the leadership of then Executive Vice President for Health Affairs, Larry N. Cook, M.D., a committee composed of experts in planning, construction, education, research, and clinical care completed a campus master plan in 2007, designed to take the Health Sciences Center to the next level. Progress continues under current Executive Vice President David Dunn, M.D., Ph.D.

Today, the University of Louisville School of Medicine continues to educate some of the nation's finest medical practitioners. With its excellent teaching and research facilities, newly endowed chairs and

Academic Year 2011-2012

strong leadership, the University of Louisville School of Medicine holds a future filled with promise, built on a past distinguished by excellence.

d. Complete the following table with data from the previous and current full surveys:*

	[Previous Survey Year] 2004-05	[Current Survey Year] 2010-11
Entering class size	149	160**
Total enrollment	590	630
Residents and fellows	551	610
Full-time basic science faculty	89	109
Full-time clinical faculty	515	702

** For 2012-2013 entering class size has been reduced to 155.

	[Previous Survey Year] 2004-05	[Current Survey Year] 2010-11
Total revenue from tuition and fees	13.6	23.4
University and government appropriations	41.1	57.6
Research/training grants, direct	62.5	72.7
Indirect cost recoveries	13.7	17.4
Practice plan income	121.5	168.5
Revenue from clinical affiliates	62.3	107.0
Other revenues	3.9	7.8
Gifts and endowment	19.4	26.5
Total revenues	337.9	480.9

* Indicate the year of the previous survey visit in the table. If the data come from a different year, indicate this year by an asterisk.

SECTION I. INSTITUTIONAL SETTING

Part A: Key Quantitative Indicators

Please provide the following information. For U.S. medical schools, use the school's copy of the Longitudinal Statistical Summary Report (LSSR) as the data source, unless otherwise indicated. Include data for 2010-2011, if available. **Source of information, AAMC Faculty Roster on 11/30/11.**

a. Number of **vacant department chair positions** for each of the following academic years

	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12
# of chair vacancies	0	1	2	2	1	0	1

b. Total numbers of **students enrolled in medical school-sponsored undergraduate programs; Master's and doctoral degree programs in the biomedical sciences; other professional degree programs; and certificate programs**

	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12
Undergraduate programs (e.g., BA/BS)	0	0	0	0	0	0	0
Master's program(s) in biomedical sciences	39	48	55	39	38	45	37
Doctoral program(s) in biomedical sciences	159	151	154	147	153	153	144
Other professional degree program(s)							
MS in Speech Pathology	44	55	55	54	53	49	50
Doctor of Audiology	37	37	35	35	37	33	36
Certificate programs	21	25	20	29	24	15	34

c. Total numbers of **residents and clinical fellows** on duty in ACGME-accredited programs (for U.S. medical schools) or in RCPSC or CFPC-accredited programs (for Canadian medical schools) that are the responsibility of the medical school faculty

	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12
Residents	466	475	483	481	472	479	494
Fellows	93	100	106	97	111	112	116

d. Percentage of **graduating medical students who participated in a research project** with a faculty member (*Source: AAMC Medical School Graduation Questionnaire*)

	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12
% participation	47.5	58.6	57.8	62.4	63.3	66.7	60.2

e. Percentage of **graduating medical students who participated in a service-learning project**. (*Source: AAMC Medical School Graduation Questionnaire*)

	2008-09	2009-10	2010-11	2011-12
% participation	N/A	49.5	35.2	49.4

SECTION I. INSTITUTIONAL SETTING

Part B: Narrative Data and Tables

IS-1. An institution that offers a medical education program must engage in a planning process that sets the direction for its program and results in measurable outcomes.

To ensure the ongoing vitality and successful adaptation of its medical education program to the rapidly changing environment of academic medicine, the institution needs to establish periodic or cyclical institutional planning processes and activities. Planning efforts that have proven successful typically involve the definition and periodic reassessment of both short-term and long-term goals for the successful accomplishment of institutional missions. By framing goals in terms of measurable outcomes wherever circumstances permit, the institution can more readily track progress toward their achievement. The manner in which the institution engages in planning will vary according to available resources and local circumstances, but it should be able to document its vision, mission, and goals; evidence indicating their achievement; and strategies for periodic or ongoing reassessment of successes and unmet challenges.

a. Provide a brief statement of the mission and goals of the medical school.

Current School of Medicine Mission

- To be a vital component in the University of Louisville's quest to become a premier, nationally recognized metropolitan research university,
- To excel in the education of physicians and scientists for careers in teaching, research, patient care and community service, and
- To bring the fundamental discoveries of our basic and clinical scientists to the bedside.

GOALS

Education

- Meet and exceed the accreditation standards of the LCME, ACGME and ACCME.
- Graduate physicians who have the knowledge, skills and attitudes to provide outstanding medical care and who are well prepared for residency training.
- Provide the necessary educational, financial and human resources to support a broad spectrum of fully accredited Graduate Medical Education Programs in generalists and specialist disciplines.
- Provide high quality Continuing Medical Education in an environment of lifelong learning.
- Provide cutting edge graduate education programs (MS and Ph.D.) in the basic science disciplines.
- Increase the production of underrepresented minority physicians.
- Increase the placement and retention of physicians in rural and underserved urban areas of Kentucky.
- Promote collaborative teaching and learning across disciplines, departments and schools.

Research

- Increase the quality and quantity of research, especially federally funded research.
- Develop, recruit and retain top-quality scientists, including those qualifying for Challenge-for-

Excellence chairs.

- Provide state-of-the-art laboratories and equipment for investigators and trainees.
- Provide cutting-edge research training and experience to medical and graduate students, as well as to postdoctoral scholars.
- Encourage basic and translational research, as well as commercialization of faculty inventions.
- Promote collaborative research across disciplines, departments and schools.

Patient Care

- Develop programs of clinical excellence with complementary translational research components which will be nationally recognized.
- Add new endeavors to historic relationships to build UofL Healthcare into a major network of referral care for our region and state.
- Participate in a system of coordinated inpatient and outpatient care delivery for the medically underserved of our metropolitan region.
- Promote collaborative clinical ventures.

****NOTE:** The Interim Dean has worked with her staff to draft a new Mission Statement for the medical school (see immediately below) that will be discussed and potentially modified as part of the currently underway strategic planning process that is described in IS-1.b.

January 2013 DRAFT: School of Medicine Mission

Our mission is be a premier metropolitan School of Medicine, dedicated to improving the health and well being of the public through excellence in education, research, clinical care and community engagement.

- We educate a diverse group of future physicians, preparing them to be patient-centered and to meet the challenges of 21st century healthcare delivery.
- We make innovative discoveries that positively impact the lives of our patients and train young scientists to carry on the legacy.
- We provide world class care that puts the patient first and is based on high standards of quality and teamwork
- We partner with, serve and actively engage in our community to enhance the quality of life for its citizens, reduce health disparities that exist and contribute to community prosperity.

We carry out our mission in a work and learning environment that promotes respect, integrity and high professional standards.

When were these last reviewed and/or revised?

They were totally revised in 2004. In 2010 they were reviewed and reaffirmed. As noted above, the SOM mission statement is currently being revised.

b. Provide an executive summary of the medical school's current strategic plan, if any. Note if the strategic plan was developed independently of or in collaboration with the parent university or the health system.

The University adopted the current strategic plan, the *2020 Strategic Plan*, in 2008, and the School of Medicine supports the goals and objectives outlined in that plan ([Appendix IS-1b*1](#)). Since 2008, the University has used a “scorecard” approach to track progress toward achieving the goals outlined in its strategic plan. To coordinate planning, each school has a scorecard that reflects the University scorecard ([Appendix IS-1.b*2](#)), which details goals, objectives, and metrics that support the strategic direction for that school as outlined in the strategic plan. The School of Medicine has been measured by its ability to meet the goals and targets that are detailed on its scorecard ([Appendix IS-1.b*3](#)). The scorecard currently contains five goal areas: Educational Excellence; Research, Scholarship and Creative Activity; Community Engagement; Diversity, Opportunity and Social Justice; and Creative and Responsible Stewardship. More information on this process and the individuals/offices involved is provided in IS-1.e below.

As this Database was being finalized in late 2012, University leadership decided that the economy, opportunities/challenges, etc. have changed so significantly since the latest complete reworking of the university-wide strategic plan in 2006-2008 that a new in-depth strategic planning process is indicated. This planning process (“The 21st Century University”) is just being initiated. The process began in November 2012, and implementation of recommendations is now scheduled for fall semester 2013. Details of “The 21st Century University” strategic planning process are provided in [Appendix IS-1.b*4](#).

At the School of Medicine level, we have undertaken additional major strategic planning in curriculum since our last accreditation visit that has resulted in an educational program that is increasing active learning and reflecting a more “hybrid” educational model. We have also done extensive strategic planning related to clinical organization to make our clinical practice much more centralized and to develop a clinical institution partnership that will provide the medical school and University Hospital with more financial stability. Additional details on the educational planning/implementation and the new clinical partnership are provided below in IS-1.e. Also, following a detailed consultation process with Exelcor, Inc., the School of Medicine is preparing to launch a major strategic planning effort (see [Appendix IS-1.b*5](#) for Exelcor’s final report).

c. Date of most recent review and/or revision of the strategic plan:

d. How often is the strategic plan reviewed and/or revised?

The University strategic plan was approved in 2008 and the scorecard that tracks progress toward achieving the goals and objectives outlined in the plan is reviewed and updated annually. The University is currently reviewing its strategic plan (see response to IS-1.e) and School of Medicine scorecards are reviewed and updated annually. The School of Medicine strategic plan has until recently been reviewed and updated annually as part of any university-wide strategic planning process, with the exception of curriculum and clinical planning, which are ongoing.

e. Briefly summarize or outline the planning process for the strategic plan, including the main participants and the names or titles of individuals or groups whose approval is required to finalize and approve it.

1) University-wide strategic planning

In 1997, the Kentucky General Assembly enacted a new statute, House Bill 1, which included a mandate that the University of Louisville become a “premier metropolitan research university.” Over the course of the next decade, from 1998-2008, the University devised and implemented the “Challenge for Excellence,” a transforming strategic plan ([Appendix IS-1.e*1](#)). During this time, the School of Medicine witnessed a dramatic increase in funded medical research, innovation in medical education, and increased engagement in the community. This advancement was significantly aided by the “Bucks-for-Brains” legislation, which provided matching funds to establish endowed chairs.

In 2006, the Board of Trustees, recognizing the ongoing success of the “Challenge for Excellence,” instructed President Ramsey to continue the growth in the quality and stature of the university and to create a new strategic plan for the future. The University Provost, working with the “Strategic Planning Steering Committee,” drove a two-year planning development process that included representation from all segments of the university community, as well as local and regional stakeholders. The recommendations of this committee ([Appendix IS-1.e*2](#)) were approved by the Board of Trustees in 2008. The resulting implementation document was the *2020 Strategic Plan* ([Appendix IS-1.b*1](#)). This plan was implemented in 2008 and each academic and administrative unit shared responsibility (as quantitated in the scorecard) for achieving the plan’s goals.

Periodically, the plan and scorecard were updated to reflect changing conditions, opportunities, etc. Once the University of Louisville strategic plan/scorecard was updated, each school updated its scorecard to remain consistent with the University document. Each year the School of Medicine’s progress on scorecard items was documented and new goals were set for the next year. This process was coordinated at the level of the Office of the Dean. The Dean worked with key members of the Dean’s Staff on progress and goal setting and met with the Provost and members of the Provost’s Office. The goals were also reviewed with the Council of the School of Medicine and Faculty Forum to ensure that the School of Medicine community was involved and knowledgeable of the process (see response to FA-14.a for information about how these school governing bodies operate). Decisions related to resource allocation at the University level were linked to this overall process. The most recent version of the School Scorecard in response to the University’s *2020 Strategic Plan* is provided in [Appendix IS-1.b*3](#).

Academic year 2013-2014 will be the last year for the 2020 Strategic Plan. As briefly described above (IS-1.b), the University is just beginning a new overall strategic planning process, “The 21st Century University.” Implementation of this new strategic plan is scheduled for academic year 2014-2015.

2) School of Medicine strategic planning

In the years since the last accreditation review, the School of Medicine has focused additional attention and energy to strategic planning in the areas of curriculum reform and clinical organization. The planning in each of these areas has been extensive and major progress has been made with implementation.

i. Curriculum reform

Details of the planning and implementation in curricular change are reported in ED-9 of this database. Briefly, several specific curriculum issues needed to be addressed and there was an overall need to accelerate the pace of change in a thoughtful and planned manner toward a “hybrid” curriculum that would include more active student learning, integration, and student engagement in their own learning. Two task forces (Preclinical and Clinical) reviewed parts of the curriculum and developed recommendations. These recommendations then went to the Faculty Forum (elected representatives of the faculty) and were approved with minor modifications. They were then approved by the Dean. Also, the Dean hosted a well-attended (50 attendants) retreat of chairs, course/clerkship directors and academic deans on very focused curricular issues; the retreat also produced major recommendations. All recommendations went to a Curriculum Implementation Committee (chaired by the Associate Dean for Medical Education and including 30 key faculty members) and an implementation plan was developed and approved by Faculty Forum and the Dean. As a result of these strategic curricular planning efforts, the authority of the Educational Policy Committee was also greatly increased. Implementation of the recommendations has moved forward in a timely and successful manner (Appendix IS-1.e*3) with 26 of 41 recommendations implemented and the remaining 15 being either in process or scheduled.

ii. Clinical organization

Since the last LCME review, a robust series of planning initiatives has led to numerous changes and accomplishments. External consultants were employed for much of this effort and change is still underway.

Since 1996, University of Louisville Hospital (ULH) was governed by University Medical Center (UMC), Inc. The UMC board was composed of representatives of UofL, Norton Health Care (NHC), and Jewish Hospital Health System (JHHS). This model worked well for a number of years, but then, as competition among ULH, NHC, and JHHS increased, the model created more difficult challenges. In 2007, the UMC board was reconstituted without NHC or JHHS, but with additional community representation. Early on, the new board determined that a joint venture with another health system was needed. Such an arrangement would allow UofL and ULH to better address challenges such as inpatient capacity, broader geographic clinical presence, access to capital, a primary care network, a larger operational scale, positioning for health care reform, a broader clinical trials population base, and expanded clinical sites for education. The initial partnership considered was with JHHS. In 2010, the discussion was expanded to include Catholic

Health Initiatives (CHI), which already was a part owner of JHHS and owned the Kentucky based St. Joseph Health System. Plans for merger progressed successfully through many steps, but, in late 2011, Kentucky's Governor decided not to sign off on the merger citing loss of control of a public asset as the main reason for his disapproval.

Since that time, UofL/UMC issued an RFP seeking a hospital system business partner to address the same issues. In November 2012, a joint operating agreement was signed by the University of Louisville, KentuckyOne Health, and University Medical Center that will turn over the management of most University of Louisville Hospital services from UMC (University Medical Center) to KentuckyOne Health on or before March 1, 2013. This new partnership will bring \$1.4 billion in academic program and hospital improvements over the next 20 years and immediate access to a statewide healthcare network.

In 2005, the clinical operation was very decentralized, as it had been for many years. There were more than 40 independent practices. The ability of such a fractured organization to respond to the 21st century realities of clinical practice was poor. As a result of intense strategic planning by HSC administration and faculty leadership, it was decided to form a better single integrated faculty practice plan, University of Louisville Physicians (ULP). When all is complete in 2013, ULP will allow for single point clinical contracting; centralized credentialing; and coordinated information technology, compliance, and practice management. Notable accomplishments of faculty leadership initiatives to date include the opening of a nearly 200,000 square foot outpatient center, the UofL Health Care Outpatient Center (HCOC). The HCOC houses many of the school's adult out-patient practices and includes an ambulatory surgery center and an imaging center. The HCOC accommodates greater interaction of our physician faculty in part due to the close proximity of their practice offices.

As this database is being finalized, efforts to update and renew the affiliation agreement with Kosair Children's Hospital are in the final stages. In addition, regular meetings between UMC leadership, which includes the Executive VP for Health Affairs and the Interim Dean, are being held to ensure a smooth transition with KentuckyOne Health. We anticipate that overall clinical strategic planning in the future will include not only the administration of the School of Medicine, the Office of the Executive Vice President for Health Affairs, and the University of Louisville Physicians (ULP) organization, but also the KentuckyOne leadership responsible for operating University of Louisville Hospital.

IS-2. A medical education program should be, or be part of, a not-for-profit institution legally authorized under applicable law to provide medical education leading to the M.D. degree.

a. Year of formation:

1798

b. State (province) of organization or incorporation:

Kentucky

c. Type of entity (check one):

<input checked="" type="checkbox"/>	Not-for-profit corporation
<input type="checkbox"/>	For-profit corporation
<input type="checkbox"/>	Limited liability company
<input type="checkbox"/>	Other, describe below

If the medical school is part of a for-profit/investor-owned company, provide the name and location of the parent company; a copy of its most recent audited financial statement; and copies of its three most recent Form 10-Ks filed with the Security and Exchange Commission, if publicly traded. Also provide a copy of its most recent annual report.

N/A

IS-3. If a U.S. medical education program is not a component of a regionally accredited institution, the parent institution for the program must achieve institutional accreditation from the appropriate regional accrediting body.

N/A

The LCME is recognized by the U.S. Department of Education as an accrediting agency for medical education programs leading to the M.D. degree. Because the LCME is not recognized as an institutional accrediting agency, it lacks standing to accredit stand-alone medical schools as institutions of higher education.

Institutional accreditation is granted by regional accrediting agencies and is required to qualify for federal financial assistance programs authorized under Title IV of the Higher Education Act. Some regional accrediting bodies grant “pre-accreditation” as a first step to achieving full accreditation. In such circumstances the attainment of pre-accreditation status would meet the requirements of this standard.

a. Accredited by the following regional accrediting body (check one):

<input type="checkbox"/>	Middle States Association of Colleges and Schools
<input type="checkbox"/>	New England Association of Schools and Colleges
<input type="checkbox"/>	North Central Association of Colleges and Schools
<input type="checkbox"/>	Northwest Commission on Colleges and Universities
<input checked="" type="checkbox"/>	Southern Association of Colleges and Schools
<input type="checkbox"/>	Western Association of Schools and Colleges

b. Current institutional accreditation status:

Fully accredited

c. Year of next regional accreditation survey:

2017

IS-4. The manner in which an institution that offers a medical education program is organized, including the responsibilities and privileges of administrative officers, faculty, medical students, and committees must be promulgated in programmatic or institutional bylaws.

a. Provide a copy of the faculty bylaws that apply to the medical school or the URL of the Web site at which they can be viewed.

The *Bylaws & Rules of the School of Medicine* are in **Appendix IS-4.a*1** and are available at <http://louisville.edu/medschool/facultyaffairs/lcme/by-laws.html>

The appendices for the *Bylaws & Rules of the School of Medicine* document are also in **Appendix IS-4.a*2** and are available at <http://louisville.edu/medschool/facultyaffairs/lcme/by-laws-appendices.html>

b. Date of the most recent bylaws revision:

6/27/11

c. Describe the process for approval of bylaws changes.

Article IX of the *Bylaws* states, “These Bylaws and Appendices may be amended or revised by action of the Executive Faculty after a proposed amendment or revision has been presented to the Rules, Policies and Credentials Committee for its recommendation and then has been approved by the Faculty Forum. Proposed amendments and appendices of the Bylaws must not be in conflict with *The Redbook*. (NOTE: *The Redbook* is the controlling basic governance document for the University.” All unit policies and procedures must be consistent with *The Redbook*, for example School of Medicine policies.)

“Changes to the Appendices require approval by the Executive Faculty of the School of Medicine. Changes to Appendix 5, which refers to the duties of the department chair, require approval by the Executive Faculty, the Provost, and the President. Changes to Appendix 6, which refers to the responsibilities of the dean, require approval by the Executive Faculty of the School of Medicine and the University Provost. Changes to the Bylaws, approved by the Executive Faculty, require subsequent approval by the President and University Board of Trustees.”

d. Briefly describe how the bylaws are made available to the faculty.

The *Bylaws* are made available on the School of Medicine’s Office of Faculty Affairs websites – see IS-4.a. above.

Any changes or revisions are announced at Faculty Forum and Medical Council, which meet monthly. The *Bylaws* are also given to all faculty members during New Faculty Orientation, which has two components. The first is a four hour session in September; all new faculty gather for a group session and learn about School of Medicine governance; promotion and tenure processes and policies; rules, regulations and guidelines; and opportunities and resources. The orientation session continues approximately 6 to 9 months later, in a 30-45 minute, one-on-one session with the Faculty Affairs Dean.

IS-5. The governing board responsible for oversight of an institution that offers a medical education program must have and follow formal policies and procedures to avoid the impact of conflicts of interest of members in the operation of the institution and its associated clinical facilities and any related enterprises.

There must be formal policies and procedures at the institution to avoid the impact of conflicts of interest (e.g., the requirement that a board member recuse him or herself from any discussion and vote relating to a matter where there is the potential for a conflict of interest to exist). The institution also must provide evidence (e.g., from board minutes, annual signed disclosure statements from board members) that these policies and procedures actually are being followed. Some conflicts related to personal or pecuniary interests in the operation of the institution may be so pervasive as to preclude service on the governing board.

IS-6. Terms of governing board members of an institution that offers a medical education program should be overlapping and sufficiently long to permit them to gain an understanding of its program.

a. Provide the name of the governing board with responsibility for the medical school.

The University of Louisville Board of Trustees
--

b. Check all units for which this governing board is directly responsible:

X	Parent University
X	Health Sciences Center
X	Medical School
	Other (describe below)

c. Provide the names and the occupations/affiliations of the current governing board members, along with their dates of initial appointment.

See following page.

University of Louisville – Board of Trustees Members

Marie Abrams	Retired	July 1, 1992
Laurence Benz	Physical Therapist, CEO, PT Development LLC	July 29, 2011
Jonathan Blue	Chairman and Managing Director of Blue Equity LLC	July 21, 2006
Ron Butt	Certified Financial Planner, ARG Financial Group	July 21, 2006
Kevin Cosby	Senior Pastor of St. Stephen Baptist Church, President-Simmons College, KY	July 2, 2009
Justin Brandt	Student (President Student Government Association-UofL)	May 16, 2012
Jody Prather	Chief Medical Officer, Baptist Healthcare System	July 21, 2012
Bruce Henderson	Engineer/Owner Henderson Services LLC	July 29, 2011
Robert C. Hughes	Physician, Primary Care Medical Center	July 27, 2005
Steve Wilson	Co-Owner, 21C Museum Hotel	July 1, 2012
Dhiane Bradley	Director of Regulatory Affairs, College of Education, UofL	July 1, 2012
Frank Minnifield (CHAIR)*	Manufacturer, Owner Minnifield Enterprises	August 1, 2011
Bruce Moore	Union County Attorney	July 1, 2008
Bob Rounsavall	Manager, Dixie Real Properties, LLC	July 1, 2010
William Selvidge	Physician, CEO Advanced Lifeline Services, Inc.	August 1, 2007
Joe Steffen	Professor, Biology, College of A&S, UofL	September 2, 2012
Debbie Scoppechio	Chairman, CEO Creative Alliance	July 1, 2008
Phoebe Wood	Owner: CompaniesWood	July 2, 2009

Note: Two trustees have yet to be appointed by the governor, which is why only 18 are listed.

If the medical school is, or is part of, a for-profit/investor-owned company, identify any board members who are shareholders/investors in the holding company for the medical school.

N/A

If the medical school is part of a for-profit/investor-owned company, does it have a subsidiary board whose members are not shareholders/investors in order to reduce opportunities for conflicts of interest? Provide the names and occupations/affiliations of the members of the subsidiary board.

N/A

d. Year of the governing board chair's initial appointment as chair and length of the board chair's term(s) of office.

Year of initial appointment: 2011
Length of term(s) of office: 1 year

e. Summarize the procedures for the appointment and renewal of governing board members, including the procedures for the chair. Describe the length of members' terms, the number of times that a member can be reappointed, and the system for staggering of appointments, if appropriate.

There are twenty members of the University of Louisville Board of Trustees (BOT). Seventeen trustees are directly appointed by the Governor of Kentucky. There is also an alumni representative on the BOT. For this position the University President sends a letter to the Governor recommending three individuals. The Governor appoints the alumni representative from that list. Each trustee serves a six-year term. Members may only serve up to twelve (12) years. Appointments are staggered with one-third of the trustees being appointed/re-appointed every two years. In addition, the *Bylaws* provide for representation of the faculty, staff, and students on the Board, the three remaining Trustees. Each of these trustees is the president/chair of his or her respective organization and serves a one-year term, unless re-elected. The Nominating Committee of the Board of Trustees solicits nominations from among the members when making its recommendations for the annual election of officers. The Chair is elected by the members for a term of one year. There is no separate board for the School of Medicine.

f. Provide copies of the policies and procedures intended to prevent or address financial and other conflicts of interest among governing board members (including recusal from discussions or decisions if a potential conflict occurs) and describe the strategies for dealing with actual or perceived conflicts of interest if they arise. Provide examples to illustrate that these policies are being followed.

For The University Code of Conduct, Individual Conflict of Interest Policy, and Institutional Conflict of Interest Policy, please see [Appendix IS-5/6.f*1](#), [IS-5/6.f*2](#), and [IS-5/6.f*3](#). All of these apply to members of the Board of Trustees. Additionally, the *Bylaws of the Board of Trustees* ([Appendix IS-5/6.f*4](#)) specifically discusses Conflict of Interest for members of the Board of Trustees (Section 4.1).

See [Appendix IS-5/6.f*5](#), [IS-5/6.f*6](#), and [IS-5/6.f*7](#), minutes from meetings of the Board of Trustees, for examples illustrating that these policies are being followed – examples are highlighted in the documents.

IS-7. Administrative officers and members of the faculty must be appointed by, or on the authority of, the governing board of the medical education program or its parent institution.

Briefly describe the role of the governing board in the appointment of the administrative officers and the faculty of the medical school.

Administrative officers are appointed by the Board of Trustees on the recommendation of the President and serve at the pleasure of the Board. Those persons with faculty rank, other than deans, who are responsible for the administration of academic units and sub-units are classified along with assistant and associate deans as faculty with administrative functions. They are appointed by the Board of Trustees on the recommendation of the President and serve in their administrative roles at the pleasure of the Board. The appointment of faculty members is also the responsibility of the Board of Trustees. It may make these appointments on the recommendation of the President of the University or it may delegate appointing authority to the President. These appointments are recommended to the Office of the President by the Dean after approval by the appropriate faculty or faculty committee, in conformity with *The Redbook*, Section 2.5.2.A. (see <http://louisville.edu/provost/redbook/> or **Appendix IS-7*1** for *The Redbook*). In departmentalized units, the Dean's recommendation is made on the advice of the departmental chair after approval by the departmental faculty or committee.

IS-8. The chief official of a medical education program, who usually holds the title "dean," must have ready access to the university president or other official of the parent institution who is charged with final responsibility for the program and to other institutional officials as are necessary to fulfill the responsibilities of the dean's office.

IS-9. There must be clear understanding of the authority and responsibility for matters related to the medical education program among the vice president for health affairs, the chief official of the medical education program, the faculty, and the directors of the other components of the medical center and the parent institution.

a. Provide the position description for the dean and, if applicable, the vice president for health affairs or equivalent.

Job descriptions for the Dean and for the Executive Vice President for Health Affairs follow.

Dean SOM responsibilities: **Appendix V of SOM Bylaws.**

Overview: In 2003 President Ramsey split the positions of Dean of the School of Medicine and Vice President for Health Affairs. The latter title was changed to Executive Vice President of Health Affairs (EVPHA) to denote an external focus and a significant role of the EVPHA in campus planning and policy issues in the Office of the President. President Ramsey's concept for the Dean's role was to maintain a more internal focus on the students/trainees, faculty and staff of the School of Medicine and to oversee teaching, research and clinical and other service programs directly related to them. That internal focus is of overarching importance and should be the filter through which each of the responsibilities as outlined below is viewed.

The Dean shall be the academic and administrative leader of the School of Medicine. The Dean shall report through the EVPHA to the Provost, and shall administer the School in accordance with the Bylaws and Rules of the School of Medicine and The REDBOOK and policies of the University of Louisville. The Dean must develop a five-year strategic plan for the SOM, which will be updated annually in concert with the University's plan and/or Challenge for Excellence. The progress on this plan will serve as one of the bases for the five-year decanal review.

The Dean shall be responsible for:

- Developing and maintaining good relationships with the students/trainees, faculty and staff of the School of Medicine as well as past members of the School including alumni;
- Fostering professionalism, diversity and a positive work/learning environment in the SOM;

In the Area of Teaching the Dean shall be responsible for:

- Undergraduate medical education in accordance with the essentials specified by the AMA/AAMC Liaison Committee on Medical Education;
- Graduate (masters and doctorate) education in compliance with University and CPE programmatic regulations and reviews;
- Graduate (residency and fellowships) medical education in compliance with the provisions of the American Council on Graduate Medical Education;
- Continuing medical education in compliance with the standards of the Accreditation Council for Continuing Medical Education (ACGME);
- Ensuring the quality of trainees (medical students, graduate students, residents, fellows, and postdoctoral trainees) and consistency of trainees with the SOM mission including its goals for diversity;
- Centrally coordinated oversight of the curriculum and curricular change;

In the Area of Research the Dean shall be responsible for:

- Maintaining a scholarly environment to include the facilitation of research and other scholarly activity by leading and overseeing the SOM research agenda including fostering of interdisciplinary programs, basic research, clinical research and translational research;
- Approving all start-up packages, grants and contracts requiring Dean's Office commitments;

In the area of Clinical and Other Service the Dean shall be responsible for:

- Ensuring the clinical environment provides high quality patient care and is conducive to the interdigitation of the educational and research programs;
- Ensuring the quality of the School of Medicine leadership including Deans and Chairs, and the quality and consistency of the faculty with the SOM mission including its goals for diversity;
- Recommending retention of vacant faculty lines in areas of clinical and other needs;
- Recommending establishment or dissolution of academic departments, institutes and centers, and sections/divisions within departments;
- Soliciting and approving annual budgets from department chairs; planning, fundraising and managing the SOM budget and other resource allocation;

In discharging these responsibilities, the Dean shall:

- Lead the School of Medicine's faculty in the development and maintenance of high quality instruction, scholarship, research, and medical care;
- Maintain standards of excellence by making recommendations to the EVPHA and Provost for the appointment, promotion and tenure of faculty members; the appointment of department chairs; the appointment of acting department chairs and the continuation of acting chairs beyond three years, the appointment of chairs and their continuation after the five-year review of chairs and their departments, both after consultation with departmental faculty; and the appointment of Vice, Associate, and Assistant Deans and other medical school administrators and other special faculty titles (e.g., endowed chairs, university scholars);
- Make final decisions on satisfactory or unsatisfactory periodic career review of faculty;
- Act on recommendations for student admission, continuation, dismissal and granting of degrees and certificates, which are recommended by the Vice Deans and Executive Faculty to the Board of Trustees;

- Meet with the faculty, staff, students, alumni, Faculty Forum, Executive Faculty, and Council of the School of Medicine as regularly and appropriately as needed in the formulation and administration of policies of the School of Medicine and to facilitate communication;
- Be responsible for the preparation and administration of the budget of the School of Medicine;
- Keep the faculty fully informed of the School of Medicine's educational, research, service, and financial status;
- Assign and monitor office and laboratory space assigned to the School of Medicine by the EVPHA;
- Be responsible for all final decisions relating to the operation of the School of Medicine within the properly authorized policies of the school of Medicine and the University of Louisville;

In discharging these responsibilities, the Dean shall also be involved outside of the School of Medicine in the following ways:

- Keep the President, the Provost, and the EVPHA fully informed of the School of Medicine's educational, research service, and financial status;
- Meet with the President, the Provost, the EVPHA, the Vice Presidents, and other Deans on the Council of Academic Officers as appropriate in the development of University policies and through these routes support the concept of a coordinated Health Sciences Center and appropriate integration of the programs of the School of Medicine with other units of the University;
- Represent or delegate representation for the SOM on the boards of Medical School Fund, Inc., University Health Care, Inc., Kentuckiana Medical Risk Retention Group and Insurance Company, Inc., Medical School Practice Association dba as University Physicians Associates (UPA), including its Executive Committee, and University Physicians Group dba as UofL Health Care or successor organizations; represent the SOM in external affairs including professional associations (e.g., AAMC) and governmental agencies; be an advocate and an effective spokesperson for the SOM;
- Coordinate with the HSC and University Development Offices in fund-raising and alumni relations activities on behalf of the School of medicine;
- Maintain a liaison with the medical community, including local, regional, state, and national medical societies (e.g., Kentucky Medical Association, Kentucky Board of Medical Licensure, Jefferson County Medical Society, Association of American Medical Colleges, etc.);
- Recommend the appointment of the Chief-of-Staff for University of Louisville Hospital to the EVPHA;

- Be responsible for certification of eligibility of students to the State and National Boards of Medical Examiners;
- Perform such other functions appropriate to the office as may be directed by the EVPHA, Provost and/or the President.

Approved by School of Medicine Faculty forum 6/9/04
Amended to drop Chancellor title and add EVPHA title 1/05

Revised Bylaws Approved by Executive Faculty on 3/21/05
Revised Bylaws Approved by Executive Faculty on 5/2007
Revised Bylaws Approved by Executive Faculty on 8/7/2008
Revised Bylaws Approved by Executive Faculty on 12/10/2008
Revised Bylaws Approved by Faculty Forum on 1/14/2009
Revised Bylaws Approved by Executive Faculty on 7/13/2009
Revised Bylaws Approved by Faculty Forum on 8/12/09
Revised Bylaws Approved by Faculty Forum on 10/14/09
Revised Bylaws Approved by Faculty Forum on 6/9/10
Revised Bylaws Approved by Executive Faculty on 6/28/10
Revised Bylaws Approved by Faculty Forum on 4/13/11
Revised Bylaws Approved by Executive Faculty on 6/27/11

Executive Vice President for Health Affairs

Position Description

I. Position Summary

Serves as a member of the Office of the President, which is the senior leadership team of the University, and is responsible for Health Sciences Center operations and planning, as well as for increasing integration of the Belknap and Health Sciences campuses;

Reports directly to the President

II. Office of the President Responsibilities

1. Serve as Acting President or Acting Provost in the absence of the President or Provost;
2. Serve on senior leadership team of the University, sharing common goals and accountability with the other team members;
3. Advise the President on University policies, programs, and operations;
4. Participate in team-based decision making and support the decisions of the Leadership team and the President;
5. Provide leadership in assessment and revision of the strategic plan;
6. Establish University-wide measures of institutional effectiveness and monitor progress relative to specific annual and long-term goals;
7. Communicate results of institutional assessment to stakeholders, Constituencies, and the public;
8. Allocate University resources in a manner consistent with the goals of the strategic plan as approved by the President and the Board of Trustees;
9. Ensure the University fosters diversity and equity;
10. Promote integration of programs and initiatives of the Belknap Campus and the Health Sciences Center;
11. Support an environment that recognizes excellence and promotes a positive atmosphere of achievement and pride for students, faculty, and staff;

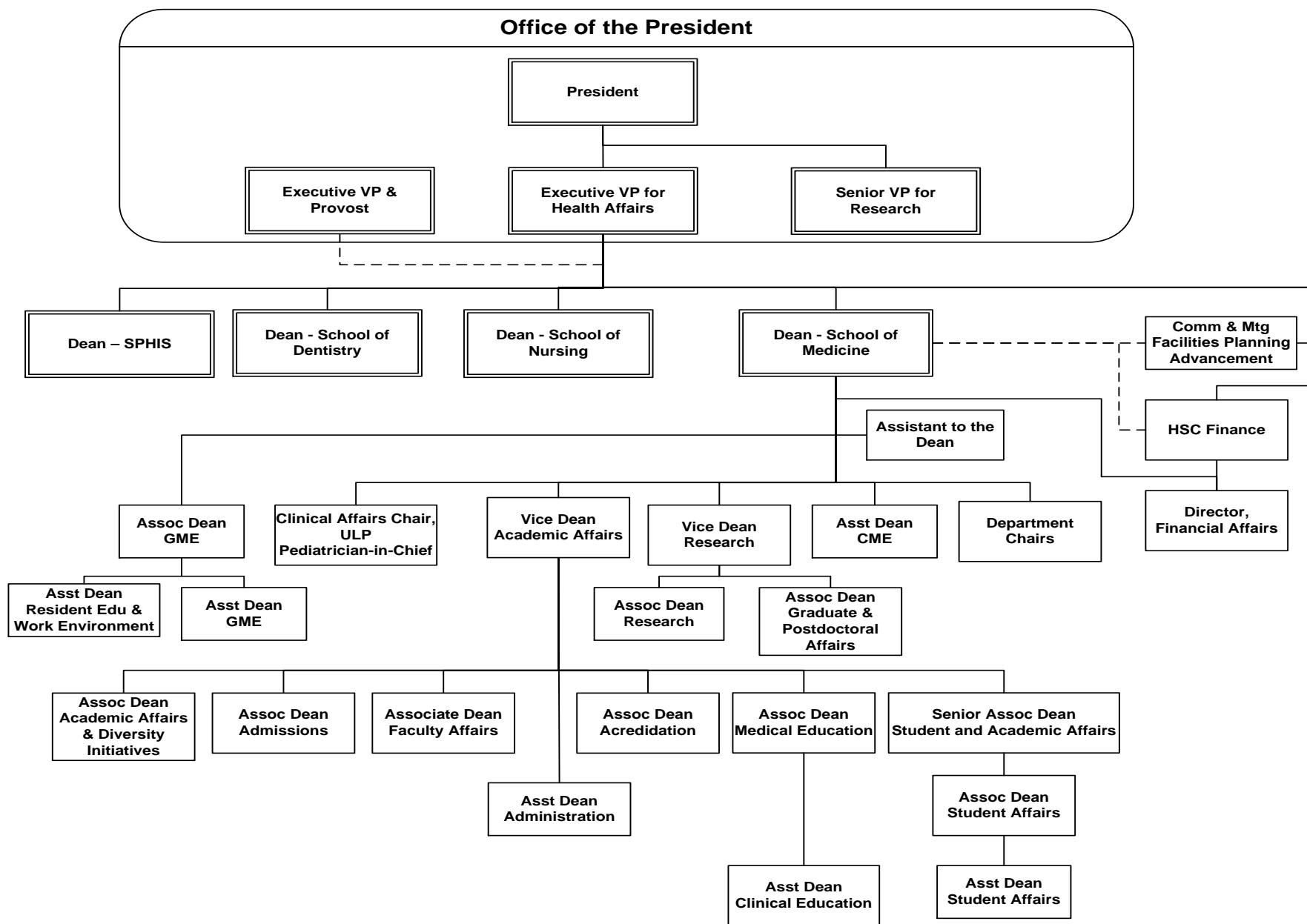
III. Principal Responsibilities as Executive Vice President, Health Affairs

1. Ensure that University Physicians Group, Inc., which includes the Health Sciences Center is a regional center of excellence for health sciences education, research, and clinical care;

2. Participate in and facilitate strategic planning for the University Medical Center, Inc. (UMC), Passport (UHC), UofL HealthCare, University Physicians Associates (UPA), the James Graham Brown Cancer Center, and related entities;
3. Determine the allocation of resources from UMC, UPA, and UofL Health Care;
4. Provide leadership for the strategic planning function for University Hospital and other affiliated entities, e.g., Trover Clinic and Veterans Administration Medical Center.

b. Supply a chart showing the relationships among the members of the medical school and university administrations and the administrations of other schools and colleges, institutes, centers, etc. Include, if appropriate, information about the reporting relationships for the director(s) of any teaching hospitals owned or operated by the medical school or university and of the medical faculty practice plan. If the medical school is part of a for-profit/investor-owned company, the chart should describe the reporting relationship that the dean or other senior academic officers have with the board of directors or officers of the corporation.

See the following page for combined organizational chart for the University of Louisville and the School of Medicine (December 2012).



c. Describe any compensation or other arrangements (including, but not limited to, shareholder status) that the dean or other senior academic officers have which are dependent upon the financial success of the medical education program.

There are no specific compensation arrangements for the Dean or other senior academic officers that are dependent upon the financial success of the medical education program.

IS-10. The chief official of a medical education program must be qualified by education and experience to provide leadership in medical education, scholarly activity, and patient care.

Provide a brief résumé of the dean's academic and administrative experience.

Biographical Sketch
Toni M. Ganzel, MD, MBA

Toni M. Ganzel, Interim Dean of the School of Medicine, received a Bachelor of Science degree in Microbiology and a Doctor of Medicine degree from the University of Nebraska. She completed an internship in general surgery and a residency in otolaryngology at the University of Nebraska Medical Center before joining the faculty at Boys Town Institute for Communication Disorders in Children and Creighton University School of Medicine. She also earned a master's degree in Business Administration in Medical Group Management from the University of Saint Thomas in Minneapolis. Dr. Ganzel joined University of Louisville in 1983 as an assistant professor of otolaryngology, later rising to director of the division of otolaryngology and full tenured professor.

In 2001 she was named associate dean for student affairs and in 2003 named senior associate dean for students and academic affairs. During that time, Dr. Ganzel was instrumental in developing such initiatives as the Academic Advisory Dean and Advisory College Program, student leadership training and mentoring, implementation of career planning into the formal curriculum, engaging students in quality improvement, and development of a business of medicine thread in the curriculum.

In March of 2012, Dr. Ganzel was appointed Interim Dean of the School of Medicine. Under her leadership, the School of Medicine is preparing for an accreditation site visit, embarking upon a new strategic planning process, moving towards a hybrid curriculum, strengthening the research infrastructure, centralizing faculty practices into a single practice entity and participating in a new joint venture for the management of University Hospital.

Dr. Ganzel is certified by the American Board of Otolaryngology and is a Fellow of the Executive Leadership in Academic Medicine (ELAM) Program as well as a Harvard Macy Scholar. She is credited with 63 publications and peer reviewed national presentations. She has held a number of leadership positions in academic and clinical medicine, including President of the Kentucky Society of Otolaryngologists, President of the Kosair Children's Hospital Medical Staff, Executive Council of the Association of Academic Departments of Otolaryngology, Head and Neck Surgery, Chair of the Graduate Medical Education Committee of the American College of Surgeons and Chair of the Careers in Medicine Advisory Board for the American Association of Medical Colleges. She and her husband Brian, a cardiothoracic surgeon, celebrated their 30th anniversary this year and have two daughters, ages 21 and 18.

Please [see Appendix IS- 10*1](#) for the Interim Dean's full *curriculum vitae*.

IS-11. The administration of an institution that offers a medical education program should include such associate or assistant deans, department chairs, leaders of other organizational units, and staff as are necessary to accomplish its mission(s).

There should not be excessive turnover or long-standing vacancies in the leadership of the institution. Areas that commonly require administrative support include admissions, student affairs, academic affairs, educational affairs/curriculum, faculty affairs, graduate education, continuing education, relationships with clinical affiliates, research, business and planning, and fund-raising.

a. Attach a chart showing the organizational structure of the dean's office.

See IS-9.b.

b. List the percent of effort contributed by each associate and assistant dean to the administrative support of the medical school and, for each, indicate his or her date of appointment to the administrative position. Indicate if any associate/assistant dean position is being filled on an interim basis. If there are interim appointments for positions in the dean's office, describe the status of recruitment to fill the positions on a permanent basis.

Name/Title	Appointment Date	% Effort
David L Wiegman, PhD Vice Dean for Academic Affairs	October 1, 1987	80%
Stephen F Wheeler, MD Associate Dean for Admissions	March 20, 2000	25%
Ruth B Greenberg, PhD Associate Dean for Accreditation	December 2, 2011	50%
William J Crump, MD Associate Dean for Trover Campus	July 1, 1998	100%
John L Roberts, MD Associate Dean for Graduate Medical Education	October 1 1996	25%
Jill Suttles, PhD Associate Dean for Faculty Affairs	February 16, 2012	50%
V Faye Jones, MD, PhD, MSPH Associate Dean for Academic Affairs and Minority and Rural Affairs	December 1, 2005	40%
Michael Ostapchuk, MD, MEd Associate Dean for Student Affairs (Interim) and Graduate Medical Education	July 1, 2006	60%
Amanda B Mackey, MD Assistant Dean for Resident Education and Work Environment	November 14, 2011	20%

W Daniel Cogan, EdD Assistant Dean for Continuing Health Science Education	December 1, 2011	100%
Kristine J Krueger, MD Assistant Dean for Administration	December 1, 2007	10%
M Ann Shaw, MD Associate Dean for Medical Education	January 1, 2012	80%
Sheldon J Bond, MD Assistant Dean for Clinical Education	July 1, 2010	10%
Dale A Schuschke, PhD Associate Dean for Research Vice Dean for Research (Interim)	January 1, 2012 July 1, 2012	50%
Thomas E Geoghegan, PhD Associate Dean for Graduate and Postdoctoral Affairs	May 1, 2010	25%
J. Christopher States, Ph.D. Associate Dean for Research (Interim)	July 1, 2012	25%

NOTE: The searches for the permanent Vice Dean for Research and Associate Dean for Research will occur once a new Dean is named.

c. Indicate the term of appointment for department chairs and the number of times that the appointment can be renewed.

Department chairs are usually appointed for a term of 5 years; there is no limit on the number of times the chair may be reappointed.

d. Indicate the date of appointment for each currently sitting department chair.

NAME	DEPARTMENT	Appointment Date
William Guido, Ph.D.	Anatomical Sciences and Neurobiology	07/01/1912
Mark V. Boswell, M.D., Ph.D., MBA	Anesthesiology and Perioperative Medicine	08/16/2010
Ronald G. Gregg, Ph.D.	Biochemistry and Molecular Biology	09/01/2009
Daniel F. Danzl, M.D.	Emergency Medicine	04/01/1991
James G. O'Brien, M.D.	Family and Geriatric Medicine	12/01/2003
Jesse Roman, M.D.	Medicine	09/01/2009
Jill Suttles, Ph.D., Interim	Microbiology and Immunology	08/15/2012
Jonathan E. Hodes, M.D.	Neurological Surgery	12/01/2009
Robert P. Friedland, M.D.	Neurology	12/01/2008
Sharmila Makhija, M.D., M.B.A.	Obstetrics, Gynecology and Women's Health	10/01/2011
Henry J. Kaplan, M.D.	Ophthalmology and Visual Sciences	12/01/2000
Craig S. Roberts, M.D.	Orthopedic Surgery	05/01/2011
Ronald J. Elin, M.D., Ph.D.	Pathology and Laboratory Medicine	01/01/2002
Gerard P. Rabalais, M.D.	Pediatrics	12/01/2006
David W. Hein, Ph.D.	Pharmacology and Toxicology	08/01/1997
Irving G. Joshua, Ph.D.	Physiology and Biophysics	02/01/1995
Allan Tasman, M.D.	Psychiatry and Behavioral Sciences	04/22/1991
Shiao Y. Woo, M.B.B.S.	Radiation Oncology	03/01/2010
Gregory C. Postel, M.D.	Radiology	04/26/1999
Kelly M. McMasters, M.D., Ph.D.	Surgery	02/15/2005
Murali K. Ankem, M.D., M.Ch.	Urology	10/01/2011

e. List the departments that are currently without a permanent chair and the date on which the last permanent chair left office. Describe the status and timelines of recruitments to fill vacant chair positions.

The Chair of Microbiology and Immunology resigned on November 30, 2011, due to health reasons. This chair position is currently under recruitment. Jill Suttles, Ph.D., has been appointed as interim chair.

f. Briefly describe how, how often, and by whom the performance of chairs is reviewed.

Department chairs are reviewed on an annual basis by the Dean through a “scorecard” system that evaluates the department’s performance in seven areas: clinical performance; research performance; undergraduate medical education; graduate/professional medical education; graduate medical education performance; financial responsibilities; and faculty affairs responsibilities. In addition, each department chair submits an annual hiring plan. The chair’s annual “scorecard” performance is included in the five-year chair review process.

In addition to the annual review, each chair is reviewed at the beginning of each consecutive sixth year of stewardship as outlined in the School of Medicine *Bylaws*. A five-member review

committee is appointed by the Dean and formed through a multi-level process designed to ensure broad representation of faculty in the school, emphasizing faculty from departments that interact extensively with the department being reviewed. At the initial meeting of the committee, the Dean charges the committee, distributes copies of the *Bylaws and Rules of the School of Medicine*, and a committee chair is elected. Department Chairs are evaluated on undergraduate education, graduate education, research and academic productivity, faculty relations and external relationships within the University and at local, regional and national levels. The chair being reviewed is asked to give the committee a "State of the Department" report. Written questionnaires evaluating the chair are sent electronically to faculty, staff and students. Committee members personally interview all willing faculty and staff within the department. The entire committee meets with individual peer groups for additional insight, and regional and national peers are queried by letter or telephone.

Once all of the information has been gathered, the committee prepares a draft report that reflects all of the information brought to the attention of the committee. The chair under review is invited to provide feedback on the draft report and correct any errors or omissions of fact.

The committee then makes a recommendation to the SOM Dean, who then meets with the chair and then meets with the departmental faculty to give them an oral report. In the last five years, the Dean's decision has ranged from reappointment to a full 5-year term to a provisional reappointment.

g. Briefly describe the budgetary authority of department chairs and the sources of funding for departmental budgets.

Department chairs have significant budgetary authority at the School of Medicine. The organizational structure is decentralized and places much fiscal responsibility on the Department Chairs with regard to revenue generation and spending. Departmental funding sources fairly well mirror those of the School and include University general funds (from tuition and state appropriation), grants and contracts, practice plan and other medical services revenues that show on University books, gifts and endowment income, support from affiliated hospitals, and other miscellaneous sources. More central control is placed on general funds than the other sources of funding.

In addition to these funding resources, clinical departments and chairs are also responsible for one or more professional practice entities that are external to the University. These practice entities are associated with the University through the School of Medicine Professional Practice Plan (see [Appendix IS-11.g*1](#)). The AAMC would categorize the practice plan as a federated plan, in that the various practice groups, although individually controlled, must comply with the central plan of the School. Each department provides practice plan funds for academic program support.

In December 2010, the faculty agreed to an integrated practice structure and voted to amend the Practice Plan effective 1/1/2012 to address the issue. University of Louisville Physicians, Inc. (ULP) was established as a non-profit entity to serve as the single practice group for full-time faculty of the School of Medicine. At this time ULP has a full complement of upper level administrative staff, and integration of the clinical practices is underway. Full implementation is anticipated by early 2013. Department chairs will still have significant budgetary authority over their departments after the integration into ULP.

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

IS-12. Medical students should have opportunities to learn in academic environments that permit interaction with students enrolled in other health professions, graduate, and professional degree programs and in clinical environments that provide opportunities for interaction with physicians in graduate medical education and continuing medical education programs.

These academic, graduate medical education, and continuing medical education programs should contribute to the learning environment of the medical education program. Periodic and formal review of these programs culminating in their accreditation by the appropriate accrediting bodies would provide evidence of their adherence to high standards of quality in education, research, and scholarship. Whenever appropriate, medical students would be able to participate in selected activities associated with these programs in order to facilitate achievement of their personal and professional goals.

Graduate Education

a. Indicate the number of students enrolled in Master’s and doctoral programs taught by medical school faculty. Include degree programs in the biomedical sciences and other programs (e.g., biomedical engineering, public health) that are taught by medical school faculty¹.

Department or Program	Master’s Students	Doctoral Students
Anatomical Sci. & Neurobiology	8	30
Biochemistry & Molecular Biol.	6	34
Microbiology & Immunology	2	32
Pharmacology & Toxicology	5	26
Physiology & Biophysics	16	22
Speech Pathology	50	0
Audiology	0	36

¹ School of Medicine faculty also teach in courses offered through other Units of the University, notably, the Schools of Dentistry, Public Health/Information Sciences, and Nursing. In addition some students from those Units take School of Medicine graduate courses.

b. Are there university or medical school policies that require regular review of graduate education (Master’s, Doctoral) programs? If so, include a copy of the policy or related documents in the Appendix.

Yes. The Provost’s office, through the Office of Academic Planning and Accountability, reviews all graduate programs on a regular schedule every 10 years, with follow-up progress reports at year 5 (Appendix IS-12.b*1).

In 2009, the University reorganized the structure of graduate education and placed responsibility for graduate education in the hands of individual Units. Each Unit developed Minimal Guidelines for Graduate Education containing, among other things, information related to review of graduate programs and graduate faculty (see response to IS-12.c.). (The School of Medicine Minimal Guidelines can be found in Appendix IS-12.b*2.)

c. Describe the process used for review of doctoral programs in the biomedical sciences.

Review of graduate programs by the Office of Academic Planning and Accountability is outlined in the documents in Appendix IS-12.c*1. Briefly, Units receive a schedule that details which programs are scheduled for review each year. A statistical overview of the program is provided by the Office of Institutional Research & Planning. Departments prepare a narrative and plan for improvement for their programs and submit them to the Dean for review. The Dean writes a letter

about the report and submits it along with the report to the Provost's office. The University's Academic Program Review Committee reviews the report and Dean's letter and submits its recommendations to the Provost. The Provost meets to discuss the findings with the Dean and department chair.

The reorganization of graduate education in 2009 provided an opportunity to establish Unit-specific standards for graduate programs. There is oversight at the Provost's level (as indicated above) and supervision/oversight by the reorganized Graduate School, now called the School of Interdisciplinary and Graduate Studies (SIGS). The *School of Medicine Minimum Guidelines for Graduate Education* were approved by the School of Medicine Graduate Faculty (October 2008) and subsequently the Provost's Office and Board of Trustees. Minor revisions to the *Guidelines* were approved by the School of Interdisciplinary and Graduate Studies in June 2011. These *Guidelines* established the School of Medicine Graduate Council as the advisory body reporting to the Dean on matters related to graduate education. The Council is also the Graduate Curriculum Committee charged with reviewing changes in graduate curriculum and graduate programs.

The School appointed an Associate Dean for Graduate and Post-Doctoral Studies to oversee operations of graduate and post-doctoral education programs. He reports directly to the Interim Vice Dean for Research, secondarily to the Vice Dean for Academic Affairs, and participates at the pleasure of the Dean in Dean's staff meetings, reporting directly on matters relating to graduate education. The Associate Dean for Graduate and Post-Doctoral Studies' appointment is 25% as Associate Dean, 75% as faculty member in Biochemistry and Molecular Biology. He chairs and is an ex-officio member the School of Medicine Graduate Council and oversees the Office of Graduate and Post-doctoral Studies (<http://louisville.edu/hsc/gradandpostdoc>) and **Appendix IS-12.c*2**.

Membership on the graduate faculty is required for faculty to teach in graduate courses, sit on graduate student thesis and dissertation committees, and mentor graduate students. Appointments are made by each Unit of the University. Applications for membership are initiated by the Chair of the graduate degree-granting department with which the faculty member is affiliated. They are reviewed by the Graduate Council, with recommendations for appointment communicated by the Associate Dean to the Vice Dean for Research, who acts on the recommendations on behalf of the Dean. There are two levels of graduate faculty appointment: regular graduate faculty and graduate research training faculty. The latter are permitted to mentor Ph.D. doctoral and masters level students in their labs, and chair Ph.D. doctoral dissertation and master's thesis committees. Regular graduate faculty may teach in graduate courses and sit on dissertation and thesis committees, but may not chair them. Graduate faculty members are reviewed by the School of Medicine Graduate Council in the year the faculty member undergoes periodic career review or review for promotion or reappointment. There are expectations for adequate performance (see review document – **Appendix IS-12.c*3**).

See **Appendix IS-12.c*4** for the Mission Statement for the School of Medicine with sections pertinent to graduate education highlighted.

Graduate Medical Education

a. For each clinical facility at which one or more medical students take a required core clerkship rotation (except ambulatory, community-based sites), mark a “+” if residents in an ACGME-accredited program (for U.S. medical schools) or in an RCPSC or CFPC-accredited program (for Canadian medical schools) are involved in medical student education in that clerkship rotation at that site; place a “-” for any clerkship rotation offered at that site in which there are no residents.

Clinical Facility Name	Family Medicine	Internal Medicine	Obstetrics/ Gynecology	Pediatrics	Psychiatry	Surgery
UofL Hospital		+	+	+	+	+
Veteran’s Adm. Medical Center		+			+	+
Kosair Children’s Hospital				+		+
Norton Hospital		+	+		+	+
Jewish Hospital		+				+
Frazier Rehab Ctr.					+	
Trover Clinic		-	-	-		-

*Notes: 1) At the Trover Campus most clinical teaching is one-on-one with the attending. There are residents only in Family Medicine, who rotate among the various services, 2) Family Medicine and to a large extent Psychiatry are out-patient based.

b. If the medical curriculum does not include a separate required clerkship rotation in one or more of the above disciplines (e.g., when the curriculum includes an integrated experience for some medical students), describe these students’ interactions with residents, including the residents’ specialties and the settings in which these interactions occur.

N/A

c. Provide the number of residents who are the responsibility of the medical school's faculty, by training program, including those programs at affiliated hospitals at which residents are taught by medical school faculty. (Note: If the medical school operates geographically separate clinical instructional sites/campuses, provide a separate table for each site.) Data in table are for 2011-2012.

Specialty of Training Program	# of PGY-1 Residents	Total # of Residents	# of Clinical Fellows (in ACGME/RCPSC/CFPC-accredited programs)	# of Clinical Fellows (in Non-ACGME/RCPSC/CFPC-accredited programs)
Anesthesiology	7	36	0	0
*Pain Management	0	0	1	0
Emergency Medicine	11	31	0	0
Family Practice	7	24	0	0
*Geriatrics	0	0	1	0
*Sports Medicine	0	0	1	0
Family Practice/Glasgow	4	11	0	0
Hand Surgery	0	0	10	0
Medicine	37	81	0	0
*Cardiology	0	0	18	0
*EPS	0	0	0	0
*Interventional Cardiology	0	0	1	0
*Dermatology	0	7	0	0
*Endocrinology	0	0	3	0
*Gastroenterology	0	0	12	0
*Hematology/Oncology	0	0	9	0
*Infectious Diseases	0	0	4	0
*Nephrology	0	0	7	0
*Palliative Care	0	0	1	0
*Pulmonary/Critical Care	0	0	9	0
*Sleep Medicine	0	0	1	0
Medicine-Pediatrics	5	20	0	0
Neurology	0	8	0	0
*Child Neurology	0	0	1	0
*Multiple Sclerosis	0	0	0	0
*Neurophysiology	0	0	0	1
*Vascular & Interventional	0	0	0	0
Neurosurgery	0	7	0	0
Obstetrics-Gynecology	6	23	0	0
Ophthalmology	0	12	0	0
*Cornea	0	0	0	1
*Oculoplastics	0	0	1	0
*Retina	0	0	0	1
Orthopedics	4	20	0	0
*Reconstructive	0	0	2	0
*Spine	0	0	0	0
*Sports Medicine	0	0	0	1

*Trauma/Traumatology	0	0	0	3
Pathology	3	13	0	0
*Cytopathology	0	0	1	0
*Forensic	0	0	1	0
*Surgical Path	0	0	0	1
*Transfusion	0	0	0	0
Pediatrics	23	67	0	0
*Critical Care	0	0	1	0
*Emergency	0	0	5	0
*Infectious Disease	0	0	2	0
*Neonatal	0	0	4	0
Physical Medicine & Rehab	0	6	0	0
Psychiatry	9	33	0	0
*Addiction	0	0	1	0
*Child	0	0	7	0
*Psychosomatic	0	0	0	0
Radiation Oncology	0	7	0	0
Radiology	0	20	0	0
Surgery	12	48	0	0
*TCV	0	0	0	0
*Plastic	0	4	0	0
*Critical Care	0	0	2	0
*ENT	0	10	0	0
*Colon	0	0	1	0
*Pediatric	0	0	1	0
Urology	0	6	0	0

d. Describe the mechanism(s) used for oversight and coordination of graduate medical education, including the evaluation and allocation of training positions. Note any programs currently on probation, as well as any programs whose size is being substantially expanded or reduced.

Graduate Medical Education (GME) is under the direction of the Associate Dean for Graduate Medical Education, who reports directly to the Dean of the School of Medicine. The Associate Dean is responsible for institutional administration of all programs and also serves as the ACGME Designated Institutional Official (DIO). The Associate Dean is supported by the Assistant Dean for GME; a GME Office, which includes a Director of GME, a Director of GME Research and 7 support staff; and the Graduate Medical Education Committee (GMEC), which is comprised of physician program directors and hospital administrators. The GMEC is chaired by the Associate Dean for GME.

The process of securing and allocating resident positions is carried out by the Associate Dean for GME, on behalf of the GMEC and the School of Medicine. Initially, each program is surveyed to determine the utilization and need for positions. Following those determinations, the Associate Dean for GME prepares a master funding/allocation proposal for the Dean and then requests and negotiates with each of our participating hospitals for the appropriate number of funded positions.

Currently, no programs are on probation. However, since the last LCME site visit in 2005, Forensic Psychiatry was granted voluntary withdrawal of accreditation effective 06/30/06 due to inability to recruit fellows. Pediatric Endocrinology was granted voluntary withdrawal of accreditation effective 06/30/07 due to insufficient number of faculty. Accreditation was

withdrawn from Thoracic and Cardiovascular Surgery in 7/2008, primarily due to insufficient volume of cases; the program was reaccredited effective 07/03/08. Urology, which had accreditation withdrawn in 2000, was reaccredited effective 07/03/2008. Pediatric Gastroenterology was granted voluntary withdrawal of accreditation effective 07/30/09, primarily due to inability to maintain a sufficient number of teaching faculty. Neurological Surgery was placed on probation 01/22/10 due to faculty numbers and qualifications and insufficient case volume; however, the program regained continued accreditation effective 06/17/11.

No programs are currently experiencing difficulty in filling positions.

e. For each accredited institution, provide the following information regarding ACGME/RCPSC/CFPC institutional review of graduate medical education programs sponsored by the medical school or its major teaching hospital(s):

Date of Last ACGME/RCPSC/CFPC Institutional Review	Status	Date of Next Review
10/05/10	Continued Accreditation	04/01/14

Continuing Medical Education

a. If the medical school or its clinical affiliates are accredited by the ACCME/RCPSC to sponsor continuing medical education for physicians, indicate each sponsoring organization’s current accreditation status, the length of accreditation granted, and the year of the next accreditation review.

Program Sponsor	Accreditation Status	Length of Accreditation Term	Year of Next Review
U of L School of Medicine	Accreditation with Commendation	6 years	2014

b. Describe the opportunities available to medical students for participation in continuing medical education programs. Is student participation in any continuing medical education programs expected or required?

Continuing medical education at the University of Louisville School of Medicine has assumed a multi-disciplinary approach and coordinates all continuing education at the Health Sciences Center (Continuing Health Sciences Education - CHSE). CHSE seeks to provide quality life-long learning for health care professionals in the disciplines of dentistry, medicine, nursing, and public health.

One of the educational objectives of the School of Medicine is to “provide high quality Continuing Medical Education in an environment of lifelong learning.” Also, the School of Medicine has a “mandated statewide mission to meet the educational, research, and patient care needs of the Commonwealth of Kentucky and an urban mission to meet the needs of

Louisville....” CHSE exists to support this mission. Student participation in CHSE is primarily limited to Grand Rounds (while the student is on required clerkships) and then occasional attendance at other CHSE programs; thus, CHSE contributes primarily to medical education indirectly, through the enrichment of faculty and resident skills, knowledge and discipline content.

CHSE offers approximately 60 to 70 live CME activities annually. CHSE also accredits 44 Regularly Scheduled Series (RSS) activities (aka Grand Rounds) and, since 2001, has developed over 15 web-based courses. In addition to live courses and RSS sessions, CHSE accredits 12 Enduring Material CME activities in the form of Journal Supplements and Podcast-based curricula. Students may attend these programs at no cost.

See also Part A, items (b.) and (c.) in this section of the database.

IS-13. A medical education program must be conducted in an environment that fosters the intellectual challenge and spirit of inquiry appropriate to a community of scholars.

IS-14. An institution that offers a medical education program should make available sufficient opportunities for medical students to participate in research and other scholarly activities of its faculty and encourage and support medical student participation.

The institution is expected to provide an appropriate number and variety of research opportunities to accommodate those medical students desiring to participate. To encourage medical student participation, the institution could, for example, provide information about available opportunities, offer elective credit for research, hold research days, or include research as a required part of the curriculum. Support for medical student participation could include offering or providing information about financial support for student research (e.g., stipends).

a. If not already described in the response to standard IS-1, briefly summarize institutional goals and priorities relating to research and scholarship.

A primary focus of The Office of the Vice Dean for Research is to increase the quality and quantity of research, especially federally funded research, including development, recruitment, and retention of top-quality scientists, and with the provision of state-of-the-art laboratories and equipment. Relative to our trainees, a major institutional goal and priority is to provide cutting-edge training and experience to medical and graduate students, as well as post-doctoral fellows. Although the funding of graduate students and post-doctoral fellows has been the responsibility of faculty mentors and departments, the funding of medical students in the research area has been mainly the responsibility of the Dean's Office and the Office for the Vice Dean for Research.

b. Briefly describe the opportunities available for medical student participation in research, including the time periods when students may do so, the average number of students in the base year who were involved in each type of program (e.g., M.D./Ph.D., M.D./M.S., summer research, year-out research), and the funding sources that are available to support student participation. Note if there is a research requirement for all medical students (e.g., a thesis or required research/scholarly project).

Several research training opportunities exist for medical students at the School of Medicine. However, other than for those students in the MD/PhD program, there is no school requirement for research training. For many years we have had the Summer Research Scholar Program (SRSP), which supports 40-60 medical students each summer. Most of the support for this program comes from endowment funds. In addition, well established faculty researchers have submitted short-term research training grants (T35/R25), and we currently have 3 training grants funded that provide 6 stipends (NIEHS T35), 7 stipends (NIDDK T35), and 12 stipends (NIH R25) for SRSP scholars, medical students who participate in a 10 week mentored research experience in the summer between the 1st and 2nd year of medical school. Looking forward we anticipate having support for an average of 45-50 Summer Scholars using the training grant funds plus endowment funds available in the School. For the past two years, we have been able to fund all of the qualified students who applied to the Summer Research Scholar Program.

The MD/PhD Program recruits highly qualified students interested in research when they apply to medical school. Two full scholarships per year are available for the medical training years.

Individual Faculty Research grants support some of the trainees during the research phase of their training; in addition, some of our students have been successful in obtaining Ruth L. Kirschstein National Research Service Awards from NIH or cancer research training fellowships from the Department of Defense. In the summer prior to beginning medical school, these students participate in research rotations in the laboratories of faculty selected from among our funded and qualified training faculty of the Graduate School and select their mentors during the first year of medical training. At the end of the 2nd year of medical school and following completion of the USMLE Step 1 examination, students work three years in the laboratory and ideally complete the PhD dissertation prior to returning to the 3rd year clerkships. The clinical departments schedule the MD/PhD students for clinically relevant short-term training to maintain proficiency during their research training period. Students can receive the PhD degree at the end of the semester they defend their dissertation or jointly with the MD when they finish medical school. Graduates from the MD/PhD program have secured excellent residencies at strong academic health centers.

The Distinction in Research (DIR) program, initially coordinated by the Office of Medical Education and now housed in the Office of Research, was started in 2010 to link interested and qualified medical students to research-active clinical science mentors. These students are interviewed and selected by a steering committee of research active clinical faculty in the spring of their first year and they pursue research in the summer in the SRSP program described earlier. Then they select physician scientists as mentors and meet at least monthly with them, attending special seminars, etc. This interaction continues in the 3rd and 4th year.

c. Describe how medical students are informed about opportunities for participation in research.

During the medical admissions process, information about the SRSP, the MD/PhD Program and the DIR track is provided to applicants. Early in the spring semester of the first year, an orientation is held and the faculty PIs on the T35 training grants personally inform the class about the SRSP program and specifically the T35 and R25 Training grants. The Research Office of the School of Medicine also advertises the program at its website and faculty submit project descriptions. Students apply for the SRSP summer research slots online; once accepted to SRSP, students submit their research project preferences. The Research Office matches the faculty and students for the 10-week summer research session. There is an enrichment conference for all SRSP participants that meets weekly for the 10 weeks. The T35 fellows also have a weekly discipline-specific conference to familiarize them with aspects of endocrinological and environmental science related biomedical/clinical research.

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

IS-14-A. An institution that offers a medical education program should make available sufficient opportunities for medical students to participate in service-learning activities and should encourage and support medical student participation.

"Service-learning" is defined as a structured learning experience that combines community service with preparation and reflection. Medical students engaged in service-learning provide community service in response to community-identified concerns and learn about the context in which service is provided, the connection between their service and their academic coursework, and their roles as citizens and professionals.

"Sufficient opportunities" means that medical students who wish to participate in a service-learning activity will have the opportunity to do so. To encourage medical student participation, institutions could, for example, develop opportunities in conjunction with relevant communities or partnerships, provide information about available opportunities, offer elective credit for participation, or hold public presentations or public forums. Support for medical student participation could include offering or providing information about financial and social support for medical student service-learning (e.g., stipends, faculty preceptors, community partnerships).

Is there a school requirement that medical students participate in a service-learning experience, either as part of a regular course or clerkship rotation or as a selective? If so, describe the opportunities for participation and reflection on the experience.

There is currently no requirement for students to participate in a service learning experience.

a. Briefly describe the opportunities for medical student participation in voluntary service-learning activities. Include the types of service-learning opportunities that are available and the general level of student involvement.

Students participate in community service and service learning opportunities as volunteers and through electives, including free clinics serving underserved populations (83% of graduates), community outreach and health education programs (42.6% of graduates), patient education and advocacy programs (50.4%), and global health experiences (31%). Because we do not have a service learning requirement, these activities are categorized as electives or volunteer activities; however, many of these experiences meet the LCME definition of service learning.

Free Clinics:

There are four free Clinics that students participate in and receive elective credit for during their second year of medical school. The Cardinal Clinic at Iroquois, formerly the GLOH (Greater Louisville Organization for Health) Clinic, primarily serves indigent patients in an underserved area of the city; the Cardinal Clinic at East Broadway, formerly the HOPE Clinic, serves primarily single mothers and their children; the Healing Place (Women), formerly the LIFE Clinic I, serves the medical needs of women in recovery from substance use disorder; and the Healing Place (Men) formerly LIFE Clinic II serves the medical needs of men in recovery from substance use disorder. Clinics are weekly and students coordinate the scheduling and operation. Both full time and gratis faculty mentors supervise the students. Fourth-year students serve as student directors and provide training for the students; in addition, the faculty clinical directors will begin meeting with participating students as a group in early 2013 to facilitate a de-briefing and reflection experience, which has previously occurred without a formal structure.

Community outreach and health education programs:

The MocDoc Program is a cooperative program between the Greater Louisville Medical Society, the Jefferson Public School System and the School of Medicine, in which students go to local elementary schools and educate children about various health topics. Students are oriented before they visit the schools.

Students have also paired themselves with The Nativity, a neighborhood elementary school for bright but disadvantaged students in which they tutor them in math and science and present educational sessions on health topics and health care career opportunities.

Patient Advocacy and Education Activities:

The Asthma Swim Education Program is carried out in conjunction with local health department physicians and nurses every two weeks at a local natatorium. Students are paired with pediatric asthma patients and spend two hours every two weeks with the children, educating the children about their disease and the benefits of swimming as an aerobic activity during the first hour and swimming with the children during the next hour.

The Walking Works Program is a program in which students are assigned as a health coach to overweight children; they educate the children and their families about healthy lifestyle choices and either walk or do an active game with the children.

Global Health Experiences:

There are currently five structured global experiences that students can participate in. (Additionally, students can make arrangements for individual experiences.) These include medical mission/service learning trips to Ecuador, Honduras, Belize, Kenya and India. Students are able to receive elective credit for these activities. They work with local physicians to care for patients with limited access to health resources. As part of this experience, they gain an understanding of the obstacles facing patients with limited resources in remote areas. Students are oriented and prepared for these trips prior to leaving and while away; reflection occurs informally while away.

b. Describe how medical students are informed about opportunities to participate in service-learning activities.

Students are informed during first year orientation about the importance of engaging in the local, regional or international community to both learn and serve. Each class has two Volunteer Coordinators who work with our Gold Humanism Honor Society Service Committee to identify and coordinate community outreach opportunities. An online centralized calendar has been developed at the Office of Medical Student Affairs website to inform students about available opportunities and to serve as a clearinghouse for information and sign up. In addition, beginning spring 2012, a “Great Day of Service” was launched as part of the Advisory College System, whereby each College chooses a community service project and carries out the project on the Great Day of Service. In spring 2013, a reflection component will be added to the Great Day of Service experience.

c. Describe how student participation in service-learning activities is encouraged, supported, and acknowledged. Include information about the sources and levels of funding available for such activities.

Students are encouraged to make a difference in their chosen communities as a central component of being a good physician. The administration provides funding for each of the free clinics through the Student Government Association and offers elective credit for participation in these clinics and the

global health experiences. In addition, the School of Medicine provides medical liability coverage for gratis faculty mentors who supervise students in the clinics. Strategic partnerships with the local county medical society, the local health department and the local school system have been developed, which facilitate student participation and engagement.

NOTE THAT STANDARD IS-15 HAS BEEN DELETED.

IS-16. An institution that offers a medical education program must have policies and practices to achieve appropriate diversity among its students, faculty, staff, and other members of its academic community, and must engage in ongoing, systematic, and focused efforts to attract and retain students, faculty, staff, and others from demographically diverse backgrounds.

The LCME and the CACMS believe that aspiring future physicians will be best prepared for medical practice in a diverse society if they learn in an environment characterized by, and supportive of, diversity and inclusion. Such an environment will facilitate physician training in:

- Basic principles of culturally competent health care.
- Recognition of health care disparities and the development of solutions to such burdens.
- The importance of meeting the health care needs of medically underserved populations.
- The development of core professional attributes (e.g., altruism, social accountability) needed to provide effective care in a multidimensionally diverse society.

The institution should articulate its expectations regarding diversity across its academic community in the context of local and national responsibilities, and regularly assess how well such expectations are being achieved. The institution should consider in its planning elements of diversity including, but not limited to, gender, racial, cultural, and economic factors. The institution should establish focused, significant, and sustained programs to recruit and retain suitably diverse students, faculty members, staff, and others.

a. Provide a copy of all current institutional (medical school and/or university) mission statement(s) and policies that are related to assuring a diverse student body, faculty, and staff.

1. U of L Mission Statement

“The University of Louisville shall be a premier, nationally recognized metropolitan research university with a commitment to the liberal arts and sciences and to the intellectual, cultural and economic development of our diverse communities and citizens through the pursuit of excellence in five interrelated strategic areas: (1) Educational Experience, (2) Research, Creative and Scholarly Activity, (3) Accessibility, Diversity, Equity and Communication, (4) Partnerships and Collaborations, and (5) Institutional Effectiveness of Programs and Services.” See <http://louisville.edu/about/mission.html>.

2. U of L Operational Definition of Diversity

The University’s operational definition of diversity as defined in the University’s diversity plan: “Diversity embraces all human differences while building on the commonalities that bind us together. It serves to eliminate discrimination, marginalization, and exclusion based on race, ethnicity, gender, gender identity, sexual orientation, age, socioeconomic status, disability, religion, national origin or military status.”

3. U of L Diversity Vision Statement

“The University of Louisville strives to foster and sustain an environment of inclusiveness that empowers us all to achieve our highest potential without fear of prejudice or bias.”

Guiding Principles and Core Values: “We commit ourselves to building an exemplary educational community that offers a nurturing and challenging intellectual climate, a respect for the spectrum of human diversity, and a genuine understanding of the many differences—including race, ethnicity,

gender identity, sexual orientation, age, socioeconomic status, disability, religion, national origin or military status—that enrich a vibrant metropolitan research university.”

For the complete University of Louisville Diversity Plan 2011-2015 see: <http://louisville.edu/diversity/university-wide-diversity-planning.html>, and **Appendix IS-16.a*1**.

4. SOM Mission Statement

“To be a vital component in the University of Louisville’s quest to become a premier, nationally recognized metropolitan research university, to excel in the education of physicians and scientists for careers in teaching, research, patient care and community service, and to bring the fundamental discoveries of our basic and clinical scientists to the bedside.”

Specific diversity goals under this current mission statement are:

Education

- a. Increase the production of under-represented minority physicians
- b. Increase the placement and retention of physicians in rural and underserved urban areas of Kentucky

Research

- a. Develop, recruit and retain top quality scientists, including those qualifying for Challenge-for-Excellence chairs

Patient Care

- a. Participate in a system of coordinated inpatient and outpatient care delivery for the medically underserved of our metropolitan region
- b. Promote collaborative clinical ventures.

NOTES:

1. For a complete listing of School of Medicine goals, see IS-1 or <http://louisville.edu/medschool/about/mission/>
2. A revised School of Medicine mission statement has been drafted and will be further discussed as part of the strategic planning process currently underway; a copy of the current draft is included in our response to IS-1.a.

5. SOM Vision Statement

“The School of Medicine (SOM) will provide an excellent educational and work environment that fosters understanding of, respect for and acceptance of the cultural differences necessary for an enlightened and educated citizenry whose purpose is to eliminate health inequities in our country. We recognize diversity as relating to race, gender, socioeconomic class, nationality, religion, sexual orientation, and disabilities of individuals on our campus.”

6. SOM Office of Minority and Rural Affairs/Diversity Initiatives Mission Statement

“The Office of Minority and Rural Affairs/Diversity Initiatives is dedicated to ensuring that students from underrepresented groups and underserved counties in Kentucky maximize their potential in pursuit of a medical career. The charge of the office is to support and enhance the academic and social interests of this success-oriented group of students.” See brochure describing the activities and programs of the office (**Appendix MS-8.a*1**).

7. SOM Diversity Plan (Appendix to University of Louisville Diversity Plan)

The School of Medicine Diversity Plan consists of a set of strategies and actions developed by the school in support of the *University of Louisville Diversity Plan 2011-2015* and detailed in a set of appendices to the University plan. The SOM Plan builds on the foundation of the University's plan but also includes its own definitions of target student, faculty, and staff groups that would add value to the SOM's learning environment. These groups include African American/Black, rural, and female students; African American/Black and female faculty; and African American/Black professional and administrative staff.

NOTE: The SOM Diversity Plan (an appendix to the University plan) can be found in **Appendix IS-16.a*2**. In addition, all of the materials programs related to the SOM diversity initiatives may be found at <http://louisville.edu/medschool/diversity> and <http://louisville.edu/medschool/diversity/SOM-Diversity>

i. Describe the process by which these statements and policies were developed, approved, and implemented at the institution.

In 2003, the University of Louisville implemented a diversity planning process that included a university-wide plan with shared goals and individual academic and administrative unit plans. Diversity goals were detailed for the University and individual units in the *University of Louisville Strategic Plan 2008-2020 Scorecard*, under the "Diversity, Opportunity, and Social Justice" theme. Each unit, including the School of Medicine, developed strategies to achieve the target goals for student enrollment, retention, and graduation; workforce diversity, and unit climate. Progress toward achieving the medical school's diversity goals was reported in the *School of Medicine 2008-2010 Unit Diversity Plan Template*.

In 2010 and 2012, the *Template* was revised to reflect the Kentucky Council on Postsecondary Education's (CPE) new *Kentucky Public Postsecondary Education Diversity Policy and Framework for Institution Diversity Plan Development*, which required that each public institution develop a campus-based diversity plan that addressed four areas: student body diversity, achievement gaps, workforce diversity, and campus climate (**Appendix IS-16.a*3**).

The *University of Louisville Diversity Plan 2011-2015*, which includes goals for the School of Medicine, was submitted to the CPE in spring 2011 (**Appendix IS-16.a*1**). During AY 2011-2012, the Provost charged each unit with developing an appendix for the University diversity plan that would outline strategies to be implemented in support of the University and CPE goals and serve going forward as the unit's diversity plan; the School of Medicine completed and submitted its Appendix for the University diversity plan to the Provost in spring 2012 (**Appendix IS-16.a*2**).

The School of Medicine Diversity Plan (appendices to University diversity plan) details goals, strategies and measurement metrics in the areas of student enrollment, retention and graduation rates; faculty, staff and administration employment and retention; and diversity education, networking, and training opportunities (**Appendix IS-16.a*2**). Currently, the SOM plan focuses specifically on underrepresented people of color, women, and rural students. Progress toward achieving SOM diversity goals is measured in the *University of Louisville Strategic Plan 2008-2020 Scorecard* for the School of Medicine under the "Diversity, Opportunity, and Social Justice goal (**Appendix IS-1.b*3**)

and in the *University of Louisville Diversity Plan Scorecard (Medicine Unit)* (**Appendix IS-16.a*4**). For example, in the areas of student enrollment, retention, and graduation on the *University Scorecard*, the School of Medicine has goals for African American and Hispanic/Latino students. In 2010 and 2011, the School of Medicine achieved all eight goals outlined in the CPE's Kentucky Plan. The School of Medicine submits annual reports (see **Appendix IS-16.a*5**) to the Vice Provost for Diversity and International Affairs that are then reflected in both the University and Diversity *Scorecards*.

The organizational structure responsible for progress toward reaching the School of Medicine's diversity goals includes the Associate Dean for Academic and Minority Affairs/Diversity Initiatives, who oversees the eleven staff members who work in the Office of Rural and Minority Affairs/Diversity Initiatives, in the AHEC Office, and in related offices. The School of Medicine Diversity Committee also reports directly to the Associate Dean. The Diversity Committee meets monthly and is responsible for any revisions required in the School of Medicine Diversity Plan and progress reports (see **Appendix IS-16.a*6**) for sample Committee minutes). Both the Office of Minority Affairs/Diversity Initiatives and the SOM Diversity Committee plan educational, social, and cultural events and programs that support the school's diversity goals. In addition, each department chair is responsible for diversity goals related to faculty recruitment and retention and must report efforts to support these goals as part of the department's annual hiring plan, which is submitted to the Dean and used as a measurement metric on the Chair's Scorecard

Describe how these statements and policies are made known to current and prospective applicants, students, employees, faculty, and staff.

The UofL Diversity plan and the SOM Diversity Plan are posted to both the University Office of Diversity and International Affairs and the School of Medicine Office of Minority Affairs/Diversity Initiatives. Also, the SOM plan is distributed to each department and each department provides a report of diversity-related activities and achievements at the end of each year. diversity goals are also detailed in the department chair's hiring plan, which is submitted annually to the Dean. Finally the SOM Office of Minority Affairs/Diversity Initiatives and the SOM Diversity Committee publicize their respective events, primarily through email and targeted invitations.

b. Describe how the institution defines or characterizes diversity for its students, faculty, and staff. What dimensions of diversity are considered? If different definitions apply to any of these institutional constituencies, provide each relevant definition. In the context of the definition of diversity, describe how institutional policies related to diversity are put into practice in each of the following areas:

Operational Definition of Diversity

At the School of Medicine, we have defined the specific groups that we believe would enhance the learning environment for our students. Historically, we have targeted African American/Black and rural students. Currently, we also target female students. Beginning in the 2012-2013 academic year, we began targeting/tracking Hispanic/Latino students.

In the area of faculty recruitment, we target African American/Black and female faculty. We have not historically identified targeted groups for staff. Beginning in AY 2012-2013, we began targeting/tracking the number of African American/Black staff in the "Professional and

Administrative Staff” category. These defined groups were presented to the Faculty Forum (see response to FA-14.a for details of how Faculty Forum operates) for review and were approved by the Forum at its November 20, 2012 meeting (see Appendix IS-16.b*1).

Developed by the School of Medicine, in collaboration with the Provost’s Office “Affinity Program” initiative, the following metrics have been identified to measure progress toward achieving diversity goals:

Students

- The % of matriculated URM students will be \geq the % of URM in the state population (URM% of the state 7.8% (AA/Black) and 3.1% (Hispanic/Latino))
- Females in the matriculated class will be \geq 40%
- In-state matriculated class will have at least 35% of students from medically under-served (PEPP) counties with a total of rural students \geq 38%
- Graduation rate for under-represented minority (URM) students admitted six years prior to current graduation year will be \geq 90%
- Graduation rate for students from underserved parts of the state admitted six years prior (excluding students in extended degree programs) to current graduation year will be \geq 90%

Faculty

- The number of full-time African American/Black faculty will increase by plus one*
- The number of women faculty will increase by plus one*
- The number of full-time African American faculty at the Associate Professor/Professor level will increase by plus one*

Staff

The number of African American/Black staff who are designated as PNA will increase by plus one*

* Note: The “plus one” measure is defined at the University level. The SOM recognizes the need to greatly exceed this “plus one” metric and has, indeed, exceeded it in the student and faculty groups it targets.

i. Student recruitment, selection, and retention

Recruitment

The School of Medicine’s mission is to expand the pool of qualified diverse applicants, to support diverse students and ensure cultural competency, and to enhance diversity in all areas of the school. It has placed a major emphasis on increasing the number of students from racial/ethnic groups designated as underrepresented in medicine, students who are economically disadvantaged, and students from rural counties designated as Health Professions Shortage Areas, who apply to medical school, matriculate and ultimately will become practicing physicians. For years, students ranging from elementary school to post-baccalaureate have participated in a variety of UofL-sponsored or affiliated programs.

UofL has an established reputation and has created multiple networks capable of conducting successful programs in rural counties with university-community programs aimed at education, recruitment and retention of healthcare workforce professionals. We have developed and

implemented health career activities through work with local schools, universities and health care facilities. The goal of these activities is to stimulate interest and prepare disadvantaged and underrepresented students in medicine for success in pursuing a health career. Through these programs, students are provided longitudinal experiences to enable them to advance through their academic pathway. These longitudinal experiences include 1) brief, targeted experiences; 2) longitudinal programming, which may be offered in the region of the students' origin; and 3) summer residential camps at regional locations and on the UofL campus.

Descriptions of some of the recruitment pipeline programs that prepare students for health careers are described follow:

- The Health Careers Adventure Program began in 1992. It is an intensive effort of the Northwest Area Health Education Center (this center is located in the underserved western part of the city of Louisville) and includes a four-week summer enrichment component for sixth through twelfth grade students who are considering a health career. Each summer 80 students participate and enhance academic skills in biology, math, chemistry, reading and writing. They learn about health care and health careers through presentations and field trips to health care facilities with health professionals and professional students. Programs during the academic year after-school and on Saturdays include tutoring, volunteer opportunities and presentations.
- The Professional Education Preparation Program (PEPP) was established in 1982. Designed for graduating high school seniors from rural, minority and disadvantaged backgrounds, PEPP focuses on math/science enrichment and communication skills for students interested in medicine. The purpose of the program is to increase the number and proportion of students from health professions shortage areas (referred to as PEPP counties) who apply to, are accepted by, and graduate from medical schools. The long-term goal is to increase the number of medical graduates who ultimately establish practice in those counties. With funding from the Kentucky State legislature, UofL conducts a three-week, residential Summer Workshop for Pre-College Students on campus.
- UofL is a national program site for the Summer Medical and Dental Education Program (SMDEP). This six-week summer academic program begun in 2006 targets rural, minority and disadvantaged college undergraduates from the surrounding region and across the country. Funding from the Robert Wood Johnson Foundation and oversight by AAMC and ADA support the goals of the program.
- The Summer MCAT/DAT Workshop (also part of PEPP), provides four weeks of intensive instruction and practice tests to rural, minority and disadvantaged Kentucky undergraduates preparing to take MCAT or DAT.
- After successful admission to medical school, the Pre-Matriculation Program is in place for students meeting the criteria of underrepresented in medicine, economically disadvantaged, rural or previous participants in our other pipeline programs. It originated with federal HCOP (Health Careers Opportunity Program) funds in 1987 and is now fully supported by institutional resources.

- The Medical Education Development (MED) Program is a special admissions option for disadvantaged students, including minority students, who were denied admission to medical school through the regular admissions process. Established in 1987, MED students (two to six students each year) complete three of the first-year medical school courses and special topics courses. Participants who pass all courses and demonstrate the ability to handle the medical school curriculum are permitted to enter the next first-year medical class and complete the remainder of the first year curriculum. The MED program has been quite successful with 70% of the students matriculating into the first year of medical school, and then 90% of these graduating.
- A new initiative (2009), the Post-Baccalaureate Pre-Med Program, is a two year pre-med program, established to admit Post-Baccalaureate and non-traditional students who want to go to medical school, but haven't fulfilled the pre-medical requirements for medical school admissions.

Admissions

The major mission of the Admissions Committee is to select students who, upon completion of their education, will help meet the medical needs of the Commonwealth of Kentucky. One of its goals is to select students from racial and ethnic groups underrepresented in medicine, students likely to be generalist physicians, and students likely to practice in a rural area who are also highly likely to successfully complete the medical school curriculum and be competent, caring physicians. The anticipated outcome is the development of an environment that will improve teaching and learning within the university and will ultimately result in the delivery of better health care services to patients (including service to underserved communities).

The admission process utilizes a holistic approach to achieve its mission. The Admissions Committee membership is reviewed each year. Representatives from basic sciences, clinical departments, current students, and community physicians are included on the committee. Diversity of gender, race, and location (urban, rural) is also considered in the make-up of the committee. At the beginning of each admission cycle, the Dean of the School and the Admissions Dean provide an orientation to discuss the mission of the school. Goals, including issues related to diversity, are communicated and concerns are discussed. Each applicant is viewed based on a multitude of factors, including academic accomplishments and personal factors. Applicants go through a screening process prior to being selected for an interview. Once this has occurred, the prospective student's academic background, personal characteristics, personal attributes, and personal experiences are considered in the selection process. The experiences and success of the pipeline programs and the holistic admission process help ensure that the medical school fulfills its mission of diversification of the class to promote an enriched learning environment.

Retention

Once the student is admitted to medical school, several programs are in place to facilitate student retention. Each student is assigned an Advisory Dean to facilitate the student's transition to the medical school environment and to monitor academic progress. Individual and group counseling is provided to students by the staff of the Office for Minority and Rural Affairs/Diversity Initiatives. Students are closely monitored and counseled to provide early intervention as needed. Continuous collaboration is maintained between staff, course directors, Advisory Deans and the Office of Medical Student Affairs. Tutoring is also available to students in need of assistance.

Supplementary books and board preparation materials are available for review and checkout. Periodic follow-up continues during clinical rotations.

Student organizations are available as well. Students are encouraged to participate in activities sponsored by the local chapter of the Student National Medical Association Chapter (SNMA) as well as other student organizations. The SNMA activities allow students from groups underrepresented in medicine (first year through senior) to interact on a regular basis to discuss local and national issues and concerns that impact their medical education. The Falls City Medical Society members, a medical society primarily composed of African-American physicians in Louisville, are available to the students to provide encouragement and support as well as to act as mentors.

ii. Financial aid

The Medical School Admissions Office awards scholarships to incoming students based on academic merit, MD/PhD status, rural county of residence and minority status. The school has consistently given full or partial scholarships to all minority students. The Office of Admissions, Office of Medical Student Affairs and the Office of Minority and Rural Affairs/Diversity Initiatives have a process in place to provide scholarship assistance to disadvantaged and rural students. However, the most competitive students attracted to and nurtured by these programs are also highly desirable to other schools of medicine, and attract significant scholarship offers. The dual challenges of increasing tuition and reduced returns on SOM endowments have limited available scholarships and reduced our competitiveness for the best of the well-prepared applicants we are helping through our pipeline programs to enhance diversity.

For financial aid website see:

<https://louisville.edu/medschool/medicalstudentaffairs/financial-aid>

iii. Educational program

The SOM has educational program objectives focused on diversity that guide curriculum development. Each medical student is expected to master the knowledge, skills, and attitudes detailed in these objectives:

- Knowledge of a physician's responsibilities to protect and care for individuals and populations that are vulnerable, at risk, or disadvantaged. [ACGME 4]
- Broad knowledge of the common diseases that affect specific age, sex and ethnic background for the major organ systems. [ACGME 2]
- The ability to effectively and efficiently perform a history and physical examination that is appropriate for age, gender, culture, region and clinical setting. [ACGME 1]
- Active listening with ethnic, racial, and cultural sensitivity. [ACGME 3]
- A commitment to promote patient and community health. [ACGME 6]
- An understanding of population-based medicine, broad public health issues and resources. [ACGME 5]
- The ability to educate patients, families, and communities about modifiable risk factors and how to move toward healthy behaviors and lifestyles.

The full UofL SOM *Objectives for the Medical Education* document can be found at: <http://louisville.edu/medschool/curriculum/program-objectives/040810%20POD%20epc%20apprvd%20040710.pdf/view> or see ED-1-A.a.

Incorporated in the curriculum are specific diversity related mandated programs. Since 2006, first year medical students have been participating in inter-professional training on cultural competency. The program was initially begun by the AHEC program, but has evolved into a student directed educational experience. It consists of a minimal of six interactive workshops on different cultures. Feedback typically has rated the program as good to very good. Each year the student planning committee reviews comments from the last session and discusses the needs of the students to determine the agenda for the coming year.

During the first and second years of the medical school curriculum, students participate in the Introduction to Clinical Medicine (ICM) course. One goal of this course is to teach students to communicate effectively and caringly with the diverse patients and families they will encounter. ICM includes topics related to underserved populations, cultural differences, and using an interpreter. Another component of the preclinical period is the Standardized Patient Program (SPP). It gives students the real-life experience necessary to become better diagnosticians, communicators and healers. The SPP trains highly motivated individuals to portray patients with a wide variety of symptoms and illnesses. Beginning in the first year of medical school, these standardized patients teach students to perform a complete physical examination, take a medical history and effectively communicate with an extensive and diverse population. Faculty preceptors and standardized patients themselves provide detailed feedback to each student, thereby improving each future clinician's ability to provide the very best health care.

In the 3rd and 4th years, approximately 10% of the curriculum is devoted to AHEC rotations. Eight regional AHECs located throughout Kentucky provide clinical education opportunities in rural and underserved areas. The 3rd year the AHEC rotation is in Family Medicine. In the 4th year the AHEC rotation is in the career area of interest of the student. Besides the clinical work, each medical student must perform a community project as part of the 3rd year AHEC rotation. The experience may influence some of these students to choose practice in rural and urban medically underserved areas in Kentucky. Evaluations of the rotations have shown positive results in students' perspectives about serving in rural and/or underserved communities. There is also evidence that the experience increases the students' understanding of the social and cultural aspects of the communities in which the rotation occurred (see sample AHEC evaluation results in [Appendix ED-8.d*1](#)).

The Trover Campus Program, where students spend their last two years of medical school at the rural campus in Madisonville (population 20,000) has been very successful in nurturing and sustaining students' interest in rural practice. Well over 50% of the Trover Campus graduates who have also finished their residencies have established their practices in rural sites, mostly in Kentucky. This compares to 3% of our Louisville Campus graduates who have established rural practices.

Approximately 100 second year students choose to complete a second year elective at one of four student-run free clinics, all of which care for patients that reflect the diverse patient population students will serve as physicians. Fourth year students serve as student directors for these clinics and provide training and guidance for them. (Additional information about the student-run free clinics may be found in our response to IS-14-A)

iv. Faculty/staff recruitment, employment, and retention

Search committees are developed with a focus on diversity, training, expertise, and experience. Depending on the specific faculty position, some of the committees include members outside of the school, college, or university. As the search committees develop a job posting and establish a search plan, timeline, and selection process, including the selection criteria, the Dean or her designee typically addresses the committee and emphasizes the need to focus on a diversified candidate pool. Each candidate is directed to University policies related to employment. See specific UofL document for:

EEO/Affirmative Action

<http://louisville.edu/hr/policies/PER101.html> or Appendix IS-16.b*2

Affirmative Action

<http://louisville.edu/hr/affirmativeaction/aa/> or Appendix IS-16.b*3

EEO for Minorities and Women

<http://louisville.edu/hr/affirmativeaction/aa/minoritiesandwomen.html> or Appendix IS-16.b*4

Since the last site visit, the number of African-American faculty has increased from 21 to 30. Although this increase enabled us to exceed our University diversity goal for this targeted group, we are developing new programs to increase the number of minority faculty. In fall 2012, the Interim Dean announced a new incentive program focused on recruitment of minority faculty. The program provides funding for minority recruitments and has directed the department chairs to prioritize these recruitments. In addition, the Interim Dean plans to create a new Assistant Dean for Diversity Initiatives position and increase the scope of the Office of Rural and Minority Affairs/Diversity Initiatives to include not only students, but faculty and staff as well.

v. Faculty Development

Once an individual has been appointed to the faculty, programs are in place to facilitate his/her transition for a successful academic career. The Office of Faculty Affairs hosts/sponsors programs that support the professional development of the School of Medicine faculty members. New Faculty Orientation gives new faculty members the opportunity to learn about appointments, promotion, tenure and/or renewal of contracts, salary increases, research funding, and other opportunities at the School of Medicine. To complete the process, a one-on-one follow-up meeting with the Associate Dean for Faculty Affairs is scheduled for each new faculty member. Another important component to success is the mentor program. All new junior faculty members are given the opportunity to participate in the mentoring program. Junior faculty members are matched with senior faculty who have similar professional interests and goals. This program allows the faculty member to discuss strategies to move his/her career forward and the mentor can act as a facilitator if problems arise.

AAMC Professional Development Seminars

Each year the AAMC hosts Professional Development Seminars for both junior and senior women faculty members. In addition, a program for underrepresented minority faculty is presented as well as a session for Chairs and Deans. Every year the School of Medicine sponsors

faculty to attend these events. These seminars focus on the objectives, skills and knowledge areas related to academic and organizational leadership.

Hedwig van Ameringen Executive Leadership in Academic Medicine (ELAM)

The School of Medicine supports one or two women each year to apply for the ELAM program. Financial support is provided after acceptance. ELAM is the only in-depth national leadership program preparing women faculty for the highest administrative ranks at academic health center. ELAM alumnae have achieved notable personal and professional advancement, attaining significant administrative promotions ranging from Chief to Dean to College President. ELAM is endorsed by the American Association of American Colleges, the Association of Academic Health Centers, the American Council on Education, the American Dental Education Association, and the American Medical Women's Association.

Minority Faculty Development Seminar

The School of Medicine supports the application and will provide financial support of junior faculty who are members of an underrepresented racial or ethnic minority group and who aspire to leadership positions in academic medicine. The AAMC-sponsored program provides assistance in identifying professional development goals and designing a career path; provides participants with an understanding of advancement in academic medicine through exploration of the requirements for appointment, promotion, and tenure, as well as to assisting attendees in planning their own progress through the system; and helps participants develop key professional competencies in academic and organizational leadership. The programs also identify personal and professional skills that are vital to academic advancement and provide opportunities for their development; assist participants in identifying and coping with unique challenges facing underrepresented racial and ethnic minority faculty; provide an overview of the grant-making process for government entities and foundations; share information on funding opportunities; and facilitate networking opportunities with colleagues and role models.

vi. Faculty Support Organizations Focused on Diversity

The Black Faculty/Staff Association (BFSA)

The Black Faculty/Staff Association (BFSA) of the University of Louisville was founded in 2002. The mission of the Black Faculty/Staff Association (BFSA) is to promote unity, provide support and build community among Black faculty, staff and students at the University of Louisville. In addition, through advocacy and collaborative efforts, BFSA exists to enhance communication as well as champion diversity and equity within the University and broader Black community. The goals also include increasing Black student enrollment and retention and to aid students in their scholarly and cultural development. Throughout the year BFSA discusses university and community issues of concern to faculty, staff, and students.

Faculty and Staff for Human Rights (FSHR)

UofL Faculty & Staff for Human Rights (FSHR) is a group of lesbian, gay, bisexual, transgendered, and queer-identified (LGBTQ) employees and allies dedicated to promoting policies and a campus climate that ensure equality for all. The SOM established a satellite group three years ago to support faculty, staff and students on the HSC campus. During this time period, the group has sponsored social gatherings and programming on the HSC campus. At present this

group is struggling to have enough members to actively move forward. The university-wide LGBT Office is assisting the SOM effort.

Committee on Diversity and Racial Equality (CODRE)

CODRE was established in 1998 to serve as the President's Chief Policy Advisor on issues of Diversity at UofL. It has specific goals to monitor and assess unit actions to develop and implement plans to enhance campus diversity, and to report to the President periodically on the progress of the units in implementing their action plans. CODRE also has the responsibility to recommend to the President new or revised initiatives that should be undertaken to make the University more welcoming and supportive of persons of color and improve the learning and working environments at UofL. Other tasks include the development of new initiatives to support crucial dialogue and an effort to promote cultural values and diverse perspectives that characterize America. See: <http://louisville.edu/codre/about-codre.html> or see **Appendix IS-16.b*5**

Commission on the Status of Women

The Commission on the Status of Women was established in 1993. Its goals include: 1) integration of work and family, 2) recruitment, retention and representation of women, 3) campus climate, and 4) improving communication. See: <http://louisville.edu/cosw> or see **Appendix IS-16.b*6.**

Liaison Activities with Community Organizations Focused on Diversity

The SOM has made a strategic effort to expand our liaison activities within the many communities we serve.

The Signature Partnership

The SOM has a representative on the Signature Partnership. The Signature Partnership is a university effort to enhance the quality of life and economic opportunity for residents of West Louisville. The goal is to work with various community partners to improve the educational, health, economic and social status of individuals and families who live in our urban core. Working closely with community residents, the Jefferson County Public Schools, Louisville Metro Government, Metro United Way, the Urban League, faith based organizations, and many others, the university has coordinated and enhanced existing programs and launched new programs designed to eliminate or reduce disparities that West Louisville residents experience in educational, health, economic and social conditions.

Area Health Educational Centers (AHEC)

Kentucky AHEC has eight strategically located centers that provide health care education programs to diverse communities and health care providers. As a result of these partnerships, all regional centers receive in-kind support such as access to staff/providers, facility use and programming assistance. The Centers are a vital part of the health care education network in their regions. Each center's Advisory Board members demonstrate a linkage to community and a commitment to improve the health of the underserved. A partial list of community partners is below.

Collaborative Partners/Linkages with AHEC:

Academic—University of Louisville Schools of Medicine, Dentistry, Nursing and Social Work; Western Kentucky University College of Health and Human Services, Western Kentucky University Institute for Rural Health; Murray State University Nurse Practitioner Program; Glasgow Family Practice Residency Program; Pikeville College School of Osteopathic Medicine; Bellarmine University; Kentucky Wesleyan College; Kentucky Community and Technical Colleges System (KCTCS); University of Kentucky; Gateway Technical Community College.

Local—Jefferson County Public Schools, public school systems in HETC counties; Children’s Health Coalition-Purchase region; West Kentucky Dental Health Coalition; Louisville Metro Health Department; Louisville Metro Office for Youth Development; Louisville Dental Society; Colgate-Palmolive Company; Doral Dental Services of Kentucky; Boys and Girls Clubs of Louisville; Presbyterian Community Center of Louisville; Jefferson County Hispanic Coalition; Louisville Metro Office of International and Cultural Affairs; Catholic Charities of Louisville; Family Health Centers; American Heart Association-Kentucky Chapter; American Cancer Society-Kentucky Chapter; Hispanic Alliance of Greater Owensboro (HAGO); Centro Latino, Trover Foundation; Community Access to Child Health (CATCH) of Henderson; Veterans Medical Center-Louisville; State Street United Methodist Church of Bowling Green; Local and District Health Departments; Family Youth Resource Service Centers; Hispanic Resource Center of Bowling Green (*La Esperanza*); Bowling Green-Warren County Primary Care Center; Shelby County Latino Center; private medical/dental practices; community hospitals;

State—Kentucky Oral Health Program; Kentucky Department of Education; Kentucky TeleHealth and TeleLink Networks; Kentucky Pharmacy Association; Kentucky Cancer Program; Kentucky Department of Public Health, Kentucky Department of Education.
Federal—USDA Cooperative Extension Service Offices; Head Starts Migrant Centers, Federally

Qualified Health Centers, (FQHC), Community Health Centers (CHC), US Department of Agriculture, and Rural Health Clinics.

c. Based on the institution’s definition of diversity and the LCME standard that “medical schools should consider in their planning elements of diversity including, but not limited to, gender, racial, cultural and economic diversity,” report in the table below information regarding the percentage of enrolled students and employed faculty and staff in each of the categories included in the institution’s definition of diversity.

NOTE: Numbers are from AY 2012-2013

Category	First-Year Students	All Students	Faculty	Staff* (PNA)
Black/African American	7	43	30 (38%)	38 (5%)
Women	62	296	268 (34%)	**
Hispanic/Latino	2	6	19 (2%)	**
Rural: PEPP	29	104	**	**
Rural: Non-PEPP	11	42	**	**

*Medical School Employees excluding House Staff and Post Doctorals, whom the University categorizes as PNA or Professional and Administrative staff.

** This group is not at this time included in our operational definition of the groups the medical school targets that would enhance the learning environment.

END OF SECTION I

SECTION II. EDUCATIONAL PROGRAM FOR THE M.D. PROGRAM

Part A: Key Quantitative Indicators

a. Total number of **scheduled weeks of instruction** for the complete medical education program (Source: LCME Part II Medical School Questionnaire). Do not include weeks devoted to vacation or holiday time.

150

b. For U.S. medical schools only: Provide the **USMLE results for first-time takers** during the three most recently completed academic years (Source: National Board of Medical Examiners School Reports).

STEP 1:

Year or Academic Year	Number Examined	Percent Passing	Mean Total Score and S.D.		National Mean Total Score and S.D.	
			Score	S.D.	Score	S.D.
2010-2011	155	90	218	24	222	24
2009-2010	158	94	222	24	221	24
2008-2009	138	91	215	22	221	23

STEP 2 CK:

Year or Academic Year	Number Examined	Percent Passing	Mean Total Score and S.D.		National Mean Total Score and S.D.	
			Score	S.D.	Score	S.D.
2010-2011	149	99	233	20	233	22
2009-2010	136	97	228	21	230	23
2008-2009	136	98	231	24	229	23

STEP 2 CS:

Year or Academic Year	Number Examined	Percent Passing
2010-2011	146	98
2009-2010	139	92
2008-2009	133	97

c. Show the percentage of **graduating medical students** in each indicated academic year who agree or strongly agree (sum of the two categories) with the statement, “Overall, I am **satisfied with the quality of my medical education.**” (Data sources: for U.S. medical schools, AAMC Longitudinal Statistical Summary Report [LSSR]; for Canadian medical schools, AAMC Canadian Graduation Questionnaire [CGQ] or other source [please identify])

	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12
% Satisfied or Very Satisfied	89.4%	92.3%	85.1%	86.8%	79.2%	89.1%	96.1%

SECTION II. EDUCATIONAL PROGRAM FOR THE M.D. PROGRAM

Part B: Narrative Data and Tables

ED-1. The faculty of an institution that offers a medical education program must define the objectives of its program. The objectives must serve as guides for establishing curriculum content and provide the basis for evaluating the effectiveness of the program.

Objectives for the medical education program as a whole serve as statements of what students are expected to learn or accomplish during the course of the program.

It is expected that the objectives of the medical education 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 these objectives are the dean and the academic leadership of clinical affiliates who share in the responsibility for delivering the program.

ED-1-A. The objectives of a medical education 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.

The objectives of the medical education program are statements of the items of knowledge, skills, behaviors, and attitudes that medical students are expected to exhibit as evidence of their achievement.

The educational objectives, 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.

There are several widely recognized definitions of the knowledge, skills, behaviors, 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 Accreditation Council for Graduate Medical Education (ACGME) and the American Board of Medical Specialties (ABMS), and the physician roles summarized in the CanMEDS 2005 report of the Royal College of Physicians and surgeons of Canada.

a. Complete the following table showing the general competencies expected of graduates, the educational program (institutional learning) objectives related to each competency, and any outcome measure(s) specifically used to assess achievement of each listed objective. Add rows to the table, as needed.

Competency	School Objective(s)	Outcome Measures
Professionalism	<p>The ability to care for patients in a compassionate way, consistently demonstrating respect for the privacy and dignity of all patients. [ACGME 3]</p> <p>The ability to consistently and dependably carry out duties with honesty, personal integrity, self-motivation and self-discipline. [ACGME 3]</p> <p>The ability to confront their own values as they relate to the practice of medicine. [ACGME 3]</p> <p>Demonstrate personal manners, dress, grooming, speech, and interpersonal skills expected of a medical professional. [ACGME 3]</p> <p>Knowledge of the theories and principles that govern ethical decision making. [ACGME 4]</p> <p>Knowledge of the major ethical dilemmas in medicine, particularly those that arise at the beginning and end of life and those that arise from the rapidly expanding field of genetics. [ACGME 4]</p>	<p>Successful completion of:</p> <p><u>Standardized Patient Encounters:</u> Introduction to Clinical Medicine; Pediatrics, Neurology, Psychiatry, and Medicine clerkships</p> <p><u>Clinical Skills Exams 1,2,3:</u> All M1, M2, and rising M4 students</p> <p><u>Mid-clerkship Evaluation:</u> All required clerkships</p> <p><u>Peer Evaluation of Professionalism Survey:</u> M1 (Gross Anatomy; Introduction to Clinical Cases); M2 (Introduction to Clinical Cases)</p> <p><u>First- and Second-Year Curriculum, including Course Quizzes, Examinations, and Other Assigned Activities such as small groups (PBLs), labs, preceptorships, TBLs, oral presentations, and independent learning</u></p> <p><u>Clinical Performance Evaluation:</u> All required clerkships (Professionalism section)</p> <p><u>Computer-Based Instruction Exams:</u> Family Medicine, Medicine, Pediatrics, Surgery</p>

Competency	School Objective(s)	Outcome Measures
Professionalism, cont'd	<p>Knowledge of a physician's responsibilities to protect and care for individuals and populations that are vulnerable, at risk, or disadvantaged. [ACGME 4]</p> <p>The ability to understand legal and ethical issues such as informed consent, malpractice, conflict of interest and confidentiality. [ACGME 4]</p> <p>The ability to accept constructive performance feedback and develop an action plan for improvement. [ACGME 3]</p> <p>A commitment to lifelong learning. [ACGME 3]</p>	
Scientific Foundations of Clinical Practice	<p>Knowledge of the normal structure and function of the human body at the level of the molecule, cell, organ/organ system, and patient as a whole. [ACGME 2]</p> <p>Knowledge of normal growth and development throughout all life stages. [ACGME 2]</p> <p>Knowledge of the basic biomedical and psychosocial mechanisms of disease, including key genetic, environmental, microbiologic, nutritional, immunologic, social and epidemiological factors. [ACGME 2]</p>	<p>Successful completion of:</p> <p><u>First- and Second-Year Curriculum, including Course Quizzes, Examinations, and Other Assigned Activities such as small groups (PBLs), labs, preceptorships, TBLs, oral presentations, and independent learning</u></p> <p><u>Clinical Skills Exam 3: All rising M4 students</u></p> <p><u>NBME Subject Exams: Pathology, and all required clerkships</u></p>

Competency	School Objective(s)	Outcome Measures
Scientific Foundations of Clinical Practice, cont'd	<p>Broad knowledge of the common diseases that affect specific age, sex and ethnic backgrounds for the major organ systems. [ACGME 2]</p> <p>Knowledge of drugs used in the management of medical conditions. [ACGME 2]</p> <p>The ability to apply basic science knowledge to the care and treatment of patients. [ACGME 2]</p>	<p><u>Clinical Performance Evaluation:</u> All required clerkships (Medical Knowledge section) SP OSCEs: Family Medicine, Pediatrics, Psychiatry, Neurology clerkships</p> <p><u>Computer-Based Clinical Cases:</u> Family Medicine, Medicine, Pediatrics, Surgery USMLE Steps 1 & 2 (CK and CS) <u>Required Clerkships:</u> clerkship specific assessments such as mid-terms, oral exams, writing assignments, and patient presentations.</p>
Information Management and Critical Thinking	<p>The ability to frame a question, search the literature, organize data, and compile and use information to care for a patient. [ACGME 1]</p> <p>The ability to access and utilize the full range of information resources available to physicians, including library resources; key professional texts and journals; and information resources available electronically such as the World Wide Web, data bases, email, a PDA and other media. [ACGME 5]</p> <p>An understanding of applied biostatistics and clinical epidemiology and how these disciplines are used to evaluate information critically, conduct formal decision analysis and design research. [ACGME 5]</p>	<p>Successful completion of:</p> <p><u>Preclinical course assignments, activities and assessments that demonstrate student mastery of “Information Management and Critical Thinking” knowledge and skills:</u> evidence-based medicine scores and quiz (ICM 2), oral presentation grade (Neurosciences), Simulation Report (Physiology), TBL quizzes (Pathology), Independent Learning Quizzes (Pharmacology), Biographical History (History of Medicine), Biostatistics unit grades (ICM 1 & 2).</p> <p><u>Clinical Performance Evaluation:</u> All required clerkships (Evidence- Based Medicine and Written Communication indicators)</p>

Competency	School Objective(s)	Outcome Measures
<p>Information Management and Critical Thinking, cont'd</p>	<p>An understanding of how clinical trials are designed, implemented and analyzed.[ACGME 5] The ability to utilize decision-support systems and guidelines for clinical decision-making, including an understanding of the roles of preferences and probabilities. [ACGME 1]</p> <p>The ability to evaluate independently the accuracy and significance of the information one obtains from any source, but especially studies reported or summarized in the medical literature. [ACGME 1]</p>	<p><u>Clinical Skills Examination 3:</u> All rising M4 students</p> <p><u>Required clerkship assignments, activities and assessments that demonstrate student mastery of “Information Management and Critical Thinking” knowledge and skills:</u> Professor’s Rounds Presentation (Psychiatry, CLIPP case exams & EBM Presentation (Pediatrics), Oral Exam (Surgery), Midterm & Case Studies (Ob/Gyn), NBME Subject Exams (Family Medicine, Medicine, Neurology)</p> <p><u>USMLE Steps 1 & 2 CK</u></p>
<p>Problem Solving and Decision Making</p>	<p>The ability to use evidence-based medicine to formulate a comprehensive differential diagnosis, direct a diagnostic workup effectively and efficiently, develop a management plan, and oversee its implementation. [ACGME 1]</p> <p>The ability to retrieve, interpret and manage data from diagnostic tests and clinical procedures for decision making. [ACGME 2]</p> <p>The ability to use consultants effectively in a team approach to patient care. [ACGME 1]</p> <p>An understanding of the role of practice guidelines in caring for patients. [ACGME 1]</p>	<p>Successful completion of:</p> <p><u>Preclinical course assignments, activities and assessments that demonstrate student mastery of “Problem Solving and Decision Making” knowledge and skills:</u> Block Exams & “Soft Chalk” Cases (Pathology), PBL Report (Physiology), Oral Presentation (Neurosciences), Quiz (ICM 1), Clinical Skills Exam 1 & 2 (ICM 1 and 2)</p> <p><u>Clinical Performance Evaluation:</u> All required clerkships (Practice-Based Learning Section and Written Communication indicator)</p> <p><u>Clinical Skills Exam:</u> All rising M4 students</p>

Competency	School Objective(s)	Outcome Measures
Problem Solving and Decision Making, cont'd		<p><u>Required clerkship assignments, activities and assessments that demonstrate student mastery of “Problem Solving and Decision Making” knowledge and skills:</u> SP OSCE’s (Family Medicine, Medicine, Pediatrics, Psychiatry), NBME Subject Exam (Medicine, Pediatrics), CLIPP exams (Pediatrics)</p> <p><u>USMLE Steps 1 & 2 CK and CS</u></p>
Clinical Skills	<p>The ability to effectively and efficiently perform a history and physical examination that is appropriate for age, gender, culture, region and clinical setting. [ACGME 1]</p> <p>The ability to generate and maintain appropriate medical records, including history and physical, discharge summaries, procedure notes, and prescriptions. [ACGME 5]</p> <p>The ability to recognize and manage life- threatening situations and carry out or direct ACLS/CPR. [ACGME 1]</p> <p>An understanding of the scientific foundation for diagnostic tests and their risks and benefits. [ACGME 2]</p> <p>An understanding of how patient competency and guardianship are determined. [ACGME 2]</p>	<p>Successful completion of:</p> <p><u>Preclinical course assignments, activities and assessments that demonstrate student mastery of “Clinical Skills” knowledge and skills:</u> Clinical Skills Exams 1 & 2 (ICM), PBL & Simulation Reports (Physiology), “Soft Chalk” cases, TBL quizzes, Autopsy Assignment, and Block Exam questions (Pathology)</p> <p><u>Required clerkship assignments, activities and assessments that demonstrate student mastery of “Clinical Skills” knowledge and skills:</u> SP OSCEs (Family Medicine, Neurology, Pediatrics, and Psychiatry), NBME Subject Exams (Family Medicine, Medicine, Ob/Gyn, Pediatrics, Psychiatry), CBI Exams (Pediatrics), Simulation Center Case (Neurology, Ob/Gyn)</p> <p><u>Clinical Performance Evaluation:</u> All required clerkships (All sections)</p>

Competency	School Objective(s)	Outcome Measures
Clinical Skills, cont'd	<p>The ability to recognize elder, child, and partner abuse, including neglect, physical abuse, sexual abuse, and emotional abuse. [ACGME 1]</p> <p>The ability to perform common medical procedures such as the placement/care of sutures for small incisions/wounds or the application of splints/bandages etc. [ACGME 1]</p> <p>Knowledge of the appropriate use of common medical devices (such as vascular catheters, endotracheal tubes, NG Tubes). [ACGME 1]</p> <p>Demonstrate sterile technique and universal precautions. [ACGME 1]</p>	<p><u>Clinical Skills Exam 3</u>: All rising M4 students</p> <p><u>USMLE Step 2 CS</u>: All M4 students</p> <p><u>ACLS Course Grade</u>: All M4 students</p> <p><u>BLS Course Grade</u>: All rising M3 students</p>
Communication	<p>Active listening with ethnic, racial, and cultural sensitivity. [ACGME 3]</p> <p>The ability to give accurate, clear, concise oral presentations. [ACGME 1]</p> <p>The ability to write, including electronic patient records, accurate, clear, concise patient records, including history and physicals, progress notes, orders and referrals for consultation. [ACGME 1]</p>	<p>Successful completion of:</p> <p><u>Peer Evaluation of Professionalism Reports</u>: Gross Anatomy, ICCs</p> <p><u>Preclinical course assignments, activities and assessments that demonstrate student mastery of "Communication" skills</u>: Quiz & SP Encounters (ICM 1 and 2), Wiki Grade (At the Intersection of Medicine and Religion, Biochemistry), Oral Presentation (Neurosciences), PBL Report (Physiology)</p> <p><u>USMLE Step 2 CS</u></p>

Competency	School Objective(s)	Outcome Measures
Communication, cont'd	<p>The ability to begin a patient encounter, elicit key information, educate and advise, and end the encounter, conveying sensitivity, compassion and concern. [ACGME 1]</p> <p>The ability to communicate effectively with a dying patient and their family about advance directives and other end of life issues. [ACGME 1]</p> <p>The ability to deliver bad news and respond effectively to patient/family responses. [ACGME 1]</p> <p>The ability to discuss medical errors in ways that promote patient trust, understanding and self-learning. [ACGME 1]</p> <p>The ability to work and communicate effectively and professionally as part of a health care team, with appreciation for the contributions and competencies of other health care professionals and respect for their unique roles, regardless of degree, occupation, or perceived status. [ACGME 1]</p>	<p><u>Clinical Performance Evaluation</u>: All required clerkships (Communication Section and Teamwork and Caring Indicators)</p> <p><u>SP OSCEs</u>: Family Medicine, Neurology, Pediatrics, Psychiatry clerkships</p> <p><u>Clinical Skills Examination 3</u>: All rising M4 students</p> <p><u>Required clerkship assignments, activities and assessments that demonstrate student mastery of "Communication" skills</u>: Oral Exam (Surgery)</p>
Economics of Medicine and Health Care Delivery Systems	<p>An understanding of the inherent conflict between traditional professional values and imperatives of the market. [ACGME 6]</p> <p>Knowledge of the social and political forces that have shaped the medical profession in the</p>	<p>Successful completion of:</p> <p><u>Preclinical course assignments, activities and assessments that demonstrate student mastery of "Economics of Medicine and Health Care Delivery Systems" knowledge, skills, and attitudes</u>: Quiz (ICM 2), Quizzes & Final</p>

Competency	School Objective(s)	Outcome Measures
Economics of Medicine and Health Care Delivery Systems, cont'd	<p>U.S. [ACGME 6]</p> <p>Knowledge of how healthcare is currently financed and how resources are allocated. [ACGME 6]</p> <p>Knowledge of the pros and cons of the various forms of managed care; of the ethical, legal and professional challenges raised by balancing cost and quality. [ACGME 6]</p> <p>A commitment to utilize resources appropriately to provide optimal care. [ACGME 6]</p> <p>The ability to apply basic principles of continuous quality improvement to medical practice. [ACGME 6]</p>	<p>Exam (History of Medicine), PBL Report (Physiology)</p> <p><u>Clinical Performance Evaluation:</u> All required clerkships (Systems-Based Practice/Practice-Based Learning Section)</p>
Social, Cultural and Community Contexts of Health	<p>A commitment to promote patient and community health. [ACGME 6]</p> <p>An understanding of population-based medicine, broad public health issues and resources. [ACGME 5]</p> <p>The ability to educate patients, families, and communities about modifiable risk factors and how to move toward healthy behaviors and lifestyles. [ACGME 1]</p>	<p>Successful completion of:</p> <p><u>Preclinical course assignments, activities and assessments that demonstrate student mastery of “Social, Cultural and Community Contexts of Health” knowledge, skills, and attitudes:</u> “Soft Chalk” cases; TBL Quizzes & Application Exercises and Block Exam (Pathology), Wiki Grade (Biochemistry), Quiz (ICM 1 and 2), PBL Report (Physiology), Final Exam (History of Medicine)</p>

Competency	School Objective(s)	Outcome Measures
<p>Social, Cultural and Community Contexts of Health, cont'd</p>	<p>Knowledge of the unique problems facing special populations and specific occupations. [ACGME 1] The ability to apply health screening and disease surveillance guidelines. [ACGME 1]</p> <p>An understanding of the guidelines for disease prevention through immunization; disease reporting; and other chemical, environmental, and public health procedures. [ACGME 1]</p>	<p><u>Clinical Performance Evaluation:</u> All required clerkships but Surgery (Systems-Based Practice/Practice-Based Learning Section)</p> <p><u>Clinical Skills Exam 3:</u> All rising M4 students</p> <p><u>Required clerkship assignments, activities and assessments that demonstrate student mastery of “Social, Cultural and Community Contexts of Health” knowledge, attitudes, and skills:</u> NBME Subject Exam (Pediatrics), CBI Exams (Family Medicine, Pediatrics, Medicine), Mid-term (Ob/Gyn), SP OSCE (Family Medicine), NBME Subject Exam Family Medicine, Medicine)</p>

b. Describe the medical school's use of these outcome measures in reaching a summative judgment regarding students' attainment of each competency.

The medical school uses the outcome measures listed in Table ED-1-A.a. to reach summative judgments regarding student attainment of each competency in its *Objectives for the Medical Education Program* document at several levels: the course and clerkship director level, the Educational Policy Committee level, and the administrative level (Appendix ED-1.b*1).

Course and clerkship directors use some of these outcome measures to reach a summative judgment regarding student mastery of the course or clerkship objectives, which are linked to the school's educational objectives (NOTE: The linkage between the course or clerkship competencies is described in each course and clerkship syllabus). Each outcome measure carries some weight in determining a student's final grade for the course or clerkship. For example, the NBME subject exams are used in all of the required clerkships to measure student mastery of objectives under the competencies: Problem Solving and Decision Making and Social, Cultural, and Community Contexts of Health Care. Similarly, final exams, course projects, and independent learning assignments are used in the preclinical required courses to reach a summative judgment regarding student mastery of objectives under the Scientific Foundations of Clinical Practice, Information Management and Critical Thinking, and Problem Solving and Decision Making Competencies.

The Educational Policy Committee (EPC), our curriculum committee, reviews each course and clerkship annually; as part of this annual review, a pair of EPC members reviews student performance results (final grades) and reports any concerns back to the EPC; any course or clerkship that does not have a pass rate of 90% or higher is discussed when the EPC review team reports back to the EPC. Although this does not occur frequently, in AY 2007-2008, the final grades in some of the first year, first semester courses for the previous year did not meet the EPC standards and resulted in the creation of a Grading Task Force, which ultimately recommended changes in policies related to "must pass" finals (Appendix ED-1.b*2).

Also, the EPC uses some of the results of outcome measures to reach a summative judgment regarding student mastery of some physician competencies. For example, the EPC reviews student performance on USMLE Step 1 and Step 2 CK annually to determine if student mastery of any of the school's competency themes is below the national average, using the subject breakdown portion of the NBME annual report. In AY 2010-2011, the EPC requested that the Office of Medical Education staff conduct a five-year review of the USMLE Step 1 results to determine if patterns could be identified in any of the subjects linked to the school's educational competency themes or individual objectives (Appendix ED-1.b*3). This report resulted in conversations with the Introduction to Clinical Medicine course director about strengthening the biostatistics/epidemiology in the course. Both the course director and the EPC are using Step 1 results to measure improved student performance in this competency over time.

In addition, the EPC uses the results of our Clinical Skills Exam 3 (CSE 3), which all rising fourth year students are required to take, to reach a summative judgment regarding student mastery of some of our educational competencies and objectives, in particular, objectives under the Clinical Skills, Professionalism, Problem Solving and Decision Making, and Communication competency themes; CSE 3 results are reviewed annually (Appendix ED-1.b*4). In February 2009, the EPC approved a requirement that all students who fail CSE 3 must remediate the exam with the Standardized Patient Program in order to graduate.

At the administrative level, the Interim Associate Dean for Student Affairs reviews each student’s results on the Peer Evaluation of Professionalism surveys, which are completed by first year, first-semester students at the end of Gross Anatomy and by first and second year students at the end of the Interdisciplinary Clinical Cases sessions (end of first and second years), to reach summative judgments about student mastery of objectives under the professionalism competency theme. (The Office of Medical Education administers the surveys and produces individual student reports). If he feels that a student’s peer evaluations indicate that remediation or discussion is needed, he will ask the student’s Advisory Dean to meet with the student to discuss needed behavioral changes. Though this happens only rarely, involving perhaps 2-3 students per year, it serves as a useful evaluation of student performance in the professionalism competency.

In addition, the Office of Medical Education produces an *OME Annual Report* (Appendix ED-1.b*5), which is distributed to all department chairs as a tool for curriculum review and planning; this report summarizes student performance in many of the outcome measures identified in the ED-1-A.a chart and serves as a school-wide summary of student mastery of the school’s competency themes; in addition, the school produces an annual *Learning Outcomes Report* for the Provost that reports the results of some of the school’s outcome measures (Appendix ED-1.b*6). This report is requirement for SACS accreditation. The OME also produces an annual “affinity diagram” report that tracks learning outcomes (Appendix ED-1.b*7). This report also serves as a tool for curricular review and planning.

c. Indicate the year in which current educational program (institutional learning) objectives were originally adopted and the year in which they were most recently reviewed or revised.

Year Adopted	Year Last Reviewed or Revised
2004	AY 2009-10

d. Briefly describe how and by what individuals/groups the educational program objectives are used in curriculum planning and in the initial selection and ongoing review of the content included in the curriculum.

Course and clerkship directors, the Educational Policy Committee (EPC) and its Curriculum Management Committee, and the Educational Administrative Committee (EAC) use the educational program objectives in curriculum planning and/or to review course and clerkship content. NOTE: The Educational Administrative Committee, whose membership consists of the Vice Dean for Academic Affairs, the Associate Dean for Medical Education, and the Interim Associate Dean for Student Affairs, meets weekly and works closely with the EPC in an advisory capacity; the EAC serves as the “chair” for the interdepartmental required courses and works to coordinate the activities student affairs and medical education.

The *EPC Syllabus Guidelines* (Appendix ED-1.d *1) were developed in 2004 and revised in 2009 and 2012. The original guidelines called for a statement in each course and clerkship syllabus explaining how the course or clerkship objectives linked to the school’s educational objectives themes. Each semester an OME staff member reviews the syllabi and produces a summary report for the EPC (Appendix ED-1.d*2); the staff member also follows up with any course or clerkship director who has not included this

statement. This particular syllabus guideline served to remind every course and clerkship director that the school's educational objectives are an important resource for curriculum review and planning. In AY 2011-2012, the EPC revised the syllabus guidelines to require that the syllabus also include information about how course objectives link to both the school's competencies (themes) and individual educational objectives; this addition to the syllabus guidelines will strengthen the guideline, ensure that course and clerkship directors use the school's educational objectives, and help course and clerkship directors prepare for entering information into LCMS+, the curriculum mapping system that was purchased in February 2012 and has been branded RedMed. The Director for Preclinical Curriculum and Assessment is coordinating the work of entering all learning experiences and the course learning objectives for those experiences, and then linking them to the school's educational objectives. This work began in summer 2012 and is still underway as the self study is being completed (see [Appendix ED-1.d*3](#) for the EPC Expectations for Using RedMed AY 2012-2013).

In addition to the syllabus guidelines, the EPC uses the school's objectives for curriculum planning and ongoing review of the content in the curriculum. For example, this kind of EPC review resulted in the creation of a new third-year required course, Topics in Clinical Medicine (TCM), when the EPC determined that some of the educational themes, for example, Economics of Medicine and Healthcare Delivery Systems, were not adequately taught in the formal curriculum. The TCM course began in spring 2011 as a pilot project and continues as a pilot project under the auspices of the EPC; for the AY 2012-2013 phase of piloting, the course director is piloting a revised course format with fourth year students, with the ultimate goal of moving the course to the fourth year in AY 2013-2014 as a stand-alone course with its own time slot ([Appendix ED-1.d*4](#)). In July 2009, the EPC created a new advisory committee, the Curriculum Integration Committee (renamed the Curriculum Management Committee in June 2011), one of whose responsibilities is to use the school's educational objectives for curriculum review and planning and specifically to identify "gaps" in the curriculum.

In addition to the course and clerkship directors and the EPC, the Director of the Standardized Patient Program and one of the Medical Education Research Unit faculty, who coordinate the school's Clinical Skills Examination 3 (CSE 3), also use the school's educational objectives to review and revise the cases used in the examination; then they produce a document that illustrates the results of this work—the linkages between the CSE 3 cases and the school's educational objectives ([Appendix ED-1.d*5](#)).

e. Briefly describe how the educational program objectives are used in the evaluation of the effectiveness of the educational program as a whole.

The Educational Policy Committee (EPC) uses the school's educational objectives to evaluate the effectiveness of the educational program as a whole by reviewing them regularly. The last review occurred in AY 2009-2010 and involved all course and clerkship directors, the EAC, and the EPC. This review process focused on all of the school's educational objectives and themes and produced revisions; for example, an objective on "knowledge of the drugs used in the management of medical conditions" was added to more correctly describe the importance of the integration of pharmacology and clinical medicine. New language about electronic patient records was added to an objective in the Communication competency. Also, we linked each of the school's educational objectives to an ACGME competency. Once feedback had been received by

the EPC and revisions had been made, the revised educational objectives document was approved by the EPC in April 2010 and shared with Faculty Forum, which consists of representatives from each department. At the end of this process, the revised educational objectives became the “new” educational objectives for the school and were distributed to the course and clerkship directors for future curriculum development and revision activities.

This review process had a positive impact on the effectiveness of the educational program. For example, the Introduction to Clinical Medicine course director began to develop a series of longitudinal standardized patient encounters to provide first and second year students with opportunities to practice managing a patient record and, long term, practice using an electronic patient record. Currently, we anticipate that the next formal review of the school’s educational objectives will take place as part of the transition to a hybrid curriculum, most likely during AY 2012-2013 or 2013-2014, after RedMed is fully loaded.

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

ED-2. An institution that offers a medical education program must have in place a system with central oversight to ensure that the faculty define the types of patients and clinical conditions that medical students must encounter, the appropriate clinical setting for the educational experiences, and the expected level of medical student responsibility. The faculty must monitor medical student experiences and modify them as necessary to ensure that the objectives of the medical education program are met.

The institution that offers a medical education program is required to establish a system to specify the types of patients or clinical conditions that medical students must encounter and to monitor and verify the medical students' experiences with patients so as to remedy any identified gaps. The system must ensure that all medical students have the required experiences. For example, if a medical student does not encounter patients with a particular clinical condition (e.g., because it is seasonal), the medical student should be able to remedy the gap by a simulated experience (e.g., a standardized patient experience, an online or paper case) or in another clerkship rotation.

When clerkship rotations in a given discipline are provided at multiple instructional sites, compliance with this standard (ED-2) may be linked to compliance with standard ED-8, which requires that the medical education program demonstrate comparability of education experiences across instructional sites.

a. Describe the mechanisms used for the initial selection and subsequent revision of the kinds of patients or clinical conditions, and the clinical settings, needed to meet the medical school's objectives for clinical education. Note if the kinds of patients or clinical conditions were selected by each clinical discipline or by a group (e.g., a clinical clerkship committee) with representation from multiple disciplines. Briefly summarize the role of the curriculum committee or other central oversight body (e.g., a clerkship rotation directors committee) in reviewing the criteria across courses and clerkships (or in Canada, clerkship rotations).

The clerkship directors took the lead in selecting the kinds of patients or clinical conditions and the clinical settings needed to meet the school's objectives for clinical education. This process began with each clerkship director selecting the kinds of patients/clinical conditions and clinical settings that would ensure student mastery of the clerkship's clinical objectives, which link to the school's objectives. The directors used available national guidelines to develop their respective lists: the Society of Teachers of Family Medicine, the Association for Surgical Education, the Association of Professors of Gynecology and Obstetrics, the Clerkship Directors in Internal Medicine organization, and the Council on Medical Student Education in Pediatrics. The Clinical Curriculum Committee, which includes all of the clerkship directors, Office of Medical Education Staff, student members, and the Associate Dean for Medical Education, reviewed the composite list when it was developed. This list was used for several years as the Office of Medical Education worked to find a technology solution that students could use to document their patient encounters and that would produce both individual student and aggregate reports. Then, early in AY 2011-2012, the EPC directed the Clinical Curriculum Committee to develop a formal set of "guidelines" for reviewing the clinical encounters regularly at the clerkship director, Clinical Curriculum Committee, and Educational Policy Committee levels in order to develop a more centrally managed oversight system. The Committee worked at the individual clerkship director and committee levels to review the original clinical encounter lists, develop the oversight guidelines, and then approve the new guidelines (Appendix ED-2.a*1). The clinical encounter guidelines were then sent forward to the EPC for discussion and action (approved, June 2012). The Clinical Curriculum Committee, the Office of Medical Education, and the EPC will play a role in the central oversight process.

b. Provide a table summarizing the criteria for patient types or clinical conditions, level of student responsibility, and clinical setting for each required clerkship rotation.

Since July 1, 2012, the clinical encounter lists (Appendix ED-2.b*1) and guidelines for central oversight (Appendix ED-2-a*1) approved during AY 2011-2012 have been used by students in each required clinical Clerkship.

A table that details the required diagnoses/encounters and clinical setting for each required Clerkship begins on the following page, followed by an explanation of the expectations for students regarding level of student responsibility.

Required Clinical Encounters & Clinical Settings by Clerkship			
Clerkship	Required Diagnoses/Encounters*	Locations	Patient Log Review
Family Medicine	Abdominal Pain Acute Respiratory Infections (2) Allergies and Asthma Anxiety or Depression Arthritis Back Pain (2) Chest Pain Chronic Cardiac Disease (2) Diabetes Mellitus Dyspepsia/GERD Fatigue Gynecologic Diagnosis (menstrual irregularities, vaginitis, STD, etc.) Headache Hypertension (4) Joint Pain - Knee/Ankle Joint Pain - Neck/Shoulder Lipid Disorders (2) Preventive Health Exam (any age) (2) Skin Problems Substance Abuse Thyroid Disorders Urologic Disorders (UTI, Prostate) Weight Management and Nutrition Chronic Lung Disease	AHEC Family Medicine - Cardinal Station Family Medicine - Geriatrics Family Medicine - Newburg Family Medicine - Outpatient Clinic	The clerkship director and coordinator review the patient logs at midclerkship and ask students if they can predict whether they will meet all the required diagnoses. Most say that they will easily meet all requirements. They also supplement with online cases.

Clerkship	Required Diagnoses/Encounters*	Locations	Patient Log Review
Internal Medicine	Abdominal Pain Alcohol/Substance Abuse Altered Mental Status Anemia Cancer (breast, lung, skin, colon, prostate) Coronary Artery Disease (ischemic heart disease) Congestive Heart Failure Chest Pain Chronic Obstructive Pulmonary Disease Cirrhosis/End-Stage Liver Disease Dementia Diabetes Dyslipidemias	Cardiology - Jewish Cardiology - UL Cardiology - VA Endocrinology - UL & VA GI - Jewish GI - UL GI - VA HEME Onc - UL Infectious Diseases - UL Infectious Diseases - VA MICU - Jewish MICU - UL MICU - VA	The clerkship coordinators review the patient logs ensuring that all diagnoses are met and it has not been a problem that students do not get the opportunity to see all of the required diagnoses.
	Dyspnea/Shortness of Air Fluid, electrolyte, or acid base disorder Gastrointestinal Bleed HIV/AIDS Hepatitis (viral, alcohol-induced, or drug-induced) Hypertension Nausea/Vomiting Obesity Pneumonia Renal Insufficiency/Failure Respiratory Distress/Failure	Outpatient Clinic Palliative Medicine - Jewish Palliative Medicine - UL Palliative Medicine - VA Pulmonary Consult - Jewish Pulmonary Consult - UL Pulmonary Consult - VA Renal - Jewish Renal - UL Renal - VA Wards - UL Wards - VA	

Clerkship	Required Diagnoses/Encounters*	Locations	Patient Log Review
Neurology	Epilepsy (2) Headache (2) Movement Disorders Multiple Sclerosis Stroke (2)	AHEC Ambulatory Rotation Jewish Hospital Kosair Children's Hospital Trover University of Louisville Healthcare Outpatient Center University of Louisville Hospital Veteran's Administration Hospital	Education Programs office reviews required diagnoses ensuring that Neurologist or Neuro Residents have signed off on each. At orientation students are told to contact the Edu. Office on the 3rd Monday of the class if they have not met the requirement. Those needing exposure are placed in the specific clinic.
Obstetrics & Gynecology	Annual Exam, Health Screening (2) Assign an Apgar score Cervical Exams/Models [Obstetrical Simulation Lab] Contraceptive Counseling (2) Evaluation & Treatment of Pelvic Inflammatory Disease Evaluation and Treatment of Ectopic Pregnancy Evaluation and Treatment of Hypertensive Disorders of Pregnancy (2) Evaluation for First Trimester Bleeding Evaluation for Third Trimester Bleeding Evaluation of Menopause Evaluation of the patient with Irregular Vaginal Bleeding Evaluation of the patient with Pelvic Pain Initial OB Visit, incl. establishing EDC Insertion of Transurethral Catheter Interval OB Visits (4) Labor Management (4)	AHEC Ambulatory Rotation Trover University of Louisville Healthcare Outpatient Center University of Louisville Hospital	Clerkship director reviews the patient logs at the midterm conference, and makes adjustments in the schedule if necessary to be sure students have the opportunity to meet all requirements
	Management of Intrapartum Hemorrhage [Obstetrical Simulation Lab] Management of Preterm Labor (2)		

Clerkship	Required Diagnoses/Encounters	Locations	Patient Log Review
Obstetrics & Gynecology, cont.	Management of Prolapsed Umbilical Cord [Obstetrical Simulation Lab]		
	Management of Shoulder Dystocia [Obstetrical Simulation Lab] Management of Uterine Inversion [Obstetrical Simulation Lab] Normal Vaginal Delivery [Obstetrical Simulation Lab] Observe Circumcision Participation in Vaginal Delivery (3) Participation in Cesarean Section (2) Pelvic Exam [Simulation Lab] Post-Partum Management (4) Vaginitis, incl. wet Prep (2) Work-up for Pelvic Pain		
Pediatrics	Well child care: Newborn (0-1 month) (3) Well child care: Infant (1-12 months) Well child care: Toddler (12-60 months) Well child care: School aged (5-12 years) Well child care: Adolescent (13-19 years) Parental concerns or abnormalities related to growth: FTT, poor weight gain, obesity, short stature, microcephaly, macrocephaly, constitutional delay, small for gestational age, large for gestational age Parental concerns or abnormalities related to nutrition: FTT, breast vs. formula feeding, questions about switching to formula, when to add solids, beginning cow's milk, diet Parental concerns or abnormalities related to development: Delayed or possibly delayed language, gross motor, fine motor, or social adaptive skills	Ambulatory Rotation Faculty Practice (Children's Foundation Building) Kosair Children's Hospital Private Practice UL Pediatrics - Broadway UL Pediatrics - C&Y UL Pediatrics - Campbellsville UL Pediatrics - Home of the Innocents (HOTI)	Clerkship director reviews patient encounter records and will amend a student's rotation to make sure they see everything on the list that is required. CLIPP cases cover things that may be seasonal/not as common.

Clerkship	Required Diagnoses/Encounters	Locations	Patient Log Review
Pediatrics, cont.	Parental concerns or abnormalities related to behavior: Sleep problems, colic, temper tantrums, toilet training, feeding problems, enuresis, ADHD, encopresis, autistic spectrum disorder, eating disorders, head banging, poor school performance	UL Pediatrics - Stonestreet	
	Upper Respiratory Tract Issues (3): Sore throat, difficulty swallowing, otalgia [Pharyngitis, strep throat, viral URI, herpangina, peritonsillar abscess, common cold, allergic rhinitis, otitis media, sinusitis, otitis externa]	ULH Newborn Nursery	
	<p>Lower Respiratory Tract Issues (2): Cough, wheeze, shortness of breath [bronchiolitis, bronchitis, pneumonia, aspiration, asthma, bronchiectasis]</p> <p>Gastrointestinal Tract Issues (2): Nausea, vomiting, diarrhea, abdominal pain [gastroenteritis, giardiasis, pyloric stenosis, appendicitis, HSP, peptic ulcer disease, gastroesophageal reflux disease]</p> <p>Dermatologic System Issues: Rash, pallor [Viral rash, scarlatina, eczema, urticaria, contact dermatitis, toxic shock, thrush, atopic dermatitis, seborrheic dermatitis, acne, anemia]</p> <p>Central Nervous System Issues: Lethargy, irritability, fussiness, headache [meningitis, concussion, seizures, ataxia, closed head injury, headache]</p> <p>Emergent Clinical Problems (2): Respiratory distress, shock, ataxia, seizures, airway obstruction, apnea, proptosis, suicidal ideation, trauma, cyanosis. [meningitis, shock, testicular torsion, DKA, SIDS, acute life threatening event (ALTE), congestive heart failure, burns, status asthmaticus, status epilepticus, encephalitis, child abuse etc.]</p> <p>Chronic Medical Problems: seasonal allergies, asthma, cerebral palsy, cystic fibrosis, diabetes mellitus, malignancy (e.g. acute lymphocytic leukemia or Wilms tumor), sickle cell disease, epilepsy, atopic dermatitis, obesity, sensory impairment, HIV/AIDS</p>		

Clerkship	Required Diagnoses/Encounters	Locations	Patient Log Review
	Fever without localizing findings (2): rule out sepsis; urinary tract infection, systemic viral infection (e.g. EBV), autoimmune diseases Jaundice (2)		
Psychiatry	Anxiety Disorders (2) Mood Disorders [Bipolar Disorder, Cyclothymia, MDD] (4) Personality Disorders [any type] (2) Psychotic Disorders [Schizophrenia, etc.] (2) Substance Use Disorders [any type] (4)	Psychiatry - Child Psychiatry (Bingham Child Guidance Clinic) Psychiatry - Norton Consultation/Liaison Psychiatry - Norton Inpatient Psychiatry - Outpatient ACB Psychiatry - ULH 5 East Inpatient Psychiatry - ULH Consultation/Liaison Psychiatry - ULH Emergency Psychiatry (EPS) Psychiatry - VAMC Inpatient Psychiatry - VAMC Outpatient/Consult/Emergency	Attendings and residents at each clinical site are aware of the minimum requirements for patient encounters. They periodically review whether or not students are seeing the required number of patients. The Associate Director of Medical Student Education in Psychiatry is responsible for overseeing the entire process.
Surgery	Abdominal Aortic Aneurysm Adrenal Mass Anorectal Disease Appendicitis Bariatric Bowel Obstruction Burns Carotid Stenosis Cholecystitis	AHEC Ambulatory Rotation Jewish Hospital Kosair Children's Hospital Norton's Hospital Trover University of Louisville Hospital University of Louisville Healthcare Outpatient Center	Clerkship director reviews patient encounter records and will amend a student's rotation to make sure they see everything on the list that is required. Wise-MD cases cover things that may be seasonal or not as common.

Clerkship	Required Diagnoses/Encounters	Locations	
Surgery, cont.	Cancer: Breast Cancer: Colon Cancer: Skin Diverticulitis Adult Inguinal Hernia Pediatric Hernia Hypercalcemia Thyroid Nodule/Thyroidectomy Trauma Resuscitation	Veteran's Administration Hospital	

* One encounter per diagnosis is required unless otherwise noted by number in parentheses

<p>Clinical Setting Ambulatory Inpatient Standardized Patient Simulated Patient Virtual (on-line) Core Curriculum (e.g., TBL, PBL, paper cases, case conferences, morning report)</p>	<p>Level of Student Responsibility (must experience at least two of the following per case) History: obtained through your direct interaction with the patient (real patient, SP, case, virtual) Physical Examination: You have done a hands on examination of the patient (e.g., may include a focused examination specific to a finding or a general examination) Presentation of the case Demonstrated knowledge of the patient's primary diagnosis Demonstrated knowledge of key features of the management plan for the patient Participation in procedure/interventional management Wrote a progress note.</p>
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c. Describe the system(s) used by students to log the clinical experiences required of them.

Students are using the new curriculum mapping system RedMed to document and log their required clinical experiences (Appendix ED-2.c*1). Both students and clerkship directors are able to track and review progress toward meeting each clerkship's clinical requirements using this web-based system. Students began using RedMed to log patient encounters July 1, 2012; although a few issues arose since RedMed is new and the patient encounter log was being used for the first time, transition issues were relatively few and students are reporting anecdotally that the RedMed patient encounter log system is working well.

d. Summarize the system(s) used by faculty to monitor students' completion of required clinical experiences. When and by whom are clerkship-specific clinical experiences reviewed and monitored? When and by whom are overall clinical experience data for all students collected and monitored?

In all clerkships, clerkship directors are required to monitor student completion of required clinical experiences (per EPC requirements). This requirement is fulfilled, in part, by mid-clerkship formative feedback sessions; students are asked to come to this meeting prepared to discuss any concerns or needs related to their ability to complete all of the required patient encounters and other clerkship requirements, and a plan is finalized to address any needs. This plan could include the use of computer-based clinical cases (Pediatrics, Family Medicine, Medicine, Surgery); intervention by the clerkship director to ensure student exposure to required patient encounters; and, in rare cases, a change in clinical site. A mid-clerkship formative feedback form is completed prior to the meeting, then revised (if necessary) and signed by the student and clerkship director (or his or her designee) (see Appendix ED-2.d*1 for sample formative feedback forms). After the mid-clerkship formative feedback meeting, students are responsible for notifying the clerkship director of any unanticipated barriers to completing any of the clerkship's clinical requirements, patient encounters, or plans developed at the mid-clerkship meeting. The clerkship directors (or the clerkship coordinator) will monitor student encounter logs during the clerkship and review the log at the end of the clerkship to ensure that students have met all of the clerkship's patient encounter requirements.

The Educational Policy Committee added a question on the required clerkship evaluation to measure clerkship monitoring of required clinical experiences. For AY 2010-2011, the clerkship average for the "the mid-clerkship feedback I received (written and oral) was helpful" question ranged from 3.6 to 4.3 on a 5-point Likert scale. In addition, we use the AAMC Graduation Questionnaire to monitor student perceptions regarding their clinical exposure. In response to the GQ "I had an opportunity to follow a variety of different patients (with different medical conditions) on the clerkship" question, the clerkship averages were as follows for 2011 graduates: Family Medicine, 4.4; Medicine, 4.5; Obstetrics/Gynecology, 4.2; Pediatrics, 4.5; Psychiatry, 4.2; and Surgery, 4.4, all on a 5-point Likert scale (1=poor; 5=excellent).

Effective AY 2012-2013, the new *Clinical Experience Log Guidelines* (Appendix ED-2.a*1) explain that students "are responsible for informing their teacher regarding conditions/diagnoses that they have not yet seen and to work with their teacher find an opportunity to fulfill the requirement(s)"; students must report this problem approximately two-thirds through the clerkship. In addition, the guidelines require the clerkship directors to report on the final grade report any failure on the part of a student to enter their data into the clinical experience log in a timely and accurate manner. The EPC, with input from the Clinical Curriculum Committee, will provide central oversight to this process.

e. For each required clerkship rotation, list the options for remedying gaps in student clinical experiences. List those clinical experience requirements fulfilled by alternate experiences (e.g., simulation, assigned readings, CLIPP cases) by more than 25% of students in a given clinical clerkship during the prior academic year.

For AY 2010-2011, our database year, none of the clerkships reported any clinical experience requirements that had to be fulfilled by alternate experience requirements for more than 25% of the students. Almost all clinical experience requirements were fulfilled without the need for alternative experiences. Options used

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or available are listed below:

Family Medicine: fmCASES web-based modules; reassignment to another site or attending

Medicine: SIMPLE web-based modules; reassignment to another site or attending

Neurology: reassignment to another attending or site

Obstetrics/Gynecology: reassignment to another attending or site

Pediatrics: CLIPP web-based modules; reassignment to another site or attending

Psychiatry: reassignment to another site or attending

Surgery: WISE-MD web-based modules (beginning AY 2011-12); reassignment to another site or attending

See also the Required Clerkship Rotation Forms.

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

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

(a) Medical students

Medical students learn about the school's educational objectives in several ways. The School of Medicine Office of Admissions distributes a brochure, *Curriculum Objectives* (Appendix ED-3.a*1) to all prospective students. In addition, the EPC *Syllabus Guidelines* require each course and clerkship director to include a statement detailing how the course objectives link to the themes and educational objectives detailed in the *Objectives for the Medical Education Program* document (examples of how courses provide this information in the syllabus may be found in Appendices ED-3.a*2, 3, & 4). In addition, the Associate Dean for Medical Education includes an explanation of the school's objectives and examples that illustrate how they link to individual course objectives in her presentation during new student orientation. The school's educational objectives are also available on the Office of Medical Education website (<http://louisville.edu/medschool/curriculum/program-objectives/040810%20POD%20epc%20apprvd%20040710.pdf/view>) and the OME Blackboard website created for faculty and student informational purposes.

(b) Instructional staff, including course and clerkship rotation directors, full-time and volunteer (community) faculty, graduate students, and resident physicians with responsibility for teaching, assessing, and supervising medical students

All course and clerkship directors provide all full-time, part time and volunteer faculty; graduate students; and resident physicians with responsibility for teaching, assessing, and supervising students with a copy of the course or clerkship syllabus, which details how the course or clerkship objectives link to the school's educational objectives. In August 2010, the Dean hosted an LCME retreat, which produced an action plan (Appendix ED-3.b*1). One of the action items that came out of that retreat was the need for a "campaign" approach to ensure that the entire medical school community was familiar with the school's educational objectives. Beginning AY 2012-2013, a short piece on the school's educational objectives was added to the packet of materials distributed at New Faculty Orientation and at each Residents as Teachers Workshop (Appendix ED-3.b*2). Also, the Office of Faculty Affairs emailed all faculty a copy of this short piece. Finally, all teaching faculty are assisting with the process of linking the learning objectives in their lectures and other learning experiences to the school's educational objectives in RedMed; this hands-on work with the school's objectives should increase familiarity and expertise with the school's objectives. Once this work has been completed, all students and individuals who teach, evaluate, and supervise medical students will have another resource for seeing how the school's objectives link to the individual course and clerkship objectives and learning objectives.

(c) The academic leadership of the medical school and its affiliated institutions

The school's educational objectives were outlined and highlighted at the August 2010 LCME retreat hosted by the Dean. Sixteen of twenty-one department chairs attended that retreat themselves, with the five who could not attend sending a representative. In addition, most course and clerkship directors were in attendance. Also, the EPC and EAC members are all very familiar with the school's educational objectives and refer to them frequently at regular meetings. Finally, the administrative and educational leadership of the medical school meet regularly with the leaders of our major affiliated institutions, Jewish Hospital, Norton Hospital, and the VA Hospital, which creates a venue for discussing the school's educational objectives when necessary. One of the members of the EPC is the Associate Dean for the Trover Campus, which ensures that faculty and residents in

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Madisonville are oriented to the school's educational objectives.

See also information for standard ED-24.

ED-4. A medical education program must include at least 130 weeks of instruction.

Report the number of scheduled weeks of instruction in each of the following:

Year/Academic Period One	36
Year/Academic Period Two	34
Year/Academic Period Three	46
Year/Academic Period Four	34
Total Weeks	150

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

ED-5. The curriculum of a medical education program must provide a general professional education and prepare medical students for entry into graduate medical education.

a. Supply a copy of the default “Course Schematic” report from the online *AAMC Curriculum Directory* or another diagram that illustrates the structure of the educational program for the base academic year (e.g., 2011-2012) used in the database and self-study. The schematic or diagram should show the approximate sequencing of, and relationships among, required courses and clerkship rotations in each academic period of the curriculum.

Curriculum schedule for the four academic years at the University of Louisville School of Medicine for Academic Year 2010-2011.

First Year Curriculum

August	September	October	November	December	January	February	March	April	May
	First Quarter		Second Quarter			Block I	Block II	Block III	
	Gross Anatomy (G. S. Nettleton)					Biochemistry (S. Ellis)			
	Intro to Clinical Medicine (ICM) 1a (Dr. C. Kodner)					Intro to Clinical Medicine 1b (ICM) (C. Kodner)			
	Interdisciplinary Clinical Cases 1a (S. Griffin)					Interdisciplinary Clinical Cases 1b (S. Griffin)			
			Neurosciences (G. Mower)					History of Medicine (E. C. Halperin)	
	Microanatomy (R. Colella)		Embryology (G. S. Nettleton)			Physiology (J. Falcone)			

Second Year Curriculum

In addition to the required courses, second year students must take at least two hours of electives. (Students may meet this requirement in the summer between their first and second year by participating in clinics.) They must also take a Basic Life Support course in late June before the third year starts. This BL is considered part of the second year curriculum.

August	September	October	November	December	January	February	March	April	
	Block I	Block II	Block III		Block IV	Block V	Block VI		
	Intro to Clinical Medicine (ICM) 2a (C. Kodner)					Intro to Clinical Medicine (ICM) 2b (C. Kodner)			
	Interdisciplinary Clinical Cases (ICC) 2a (S. Griffin)					Interdisciplinary Clinical Cases 2a (ICC) (S. Griffin)			
	Microbiology & Immunology (U. Streips)					Clinical Neuroscience (CNS) (T. Feldmann & M. Sowell)			
	Pathology (S. Hollensead, A. Holthouser, & T. Ayyoubi)								
	Genetics (J. Hersh)			Pharmacology (M. Williams)					
						Medicine & Spirituality (E. C. Halperin)			

Third Year Curriculum

The Third Year clerkships run concurrently throughout the academic year from July to June. The sequence of clerkships is organized on a track basis. Each student selects his/her track schedule near the end of the second year.

July	August	September	October	November	December	January	February	March	April	May	June
Family Medicine Clerkship (6 weeks) (D. Roberts)											
Pediatrics Clerkship (8 weeks) (P. Patel)											
Basic Surgery Clerkship (8 weeks) (S. Bond)											
Internal Medicine Clerkship (10 weeks) (M. Shaw)											
Obstetrics and Gynecology Clerkship (6 weeks) (R. Fleming)											
Psychiatry Clerkship (6 weeks) (T. Feldmann)											

Fourth Year Curriculum

The Fourth Year clinical rotations and electives run concurrently throughout the academic year from July to early May. In addition to the required Neurology rotation, students must take an Acting Internship (AI) in Family Medicine or Medicine or Pediatrics; a Surgical/Perioperative Medicine selective; an AHEC rotation; and an Ambulatory rotation [the Ambulatory rotation or AHEC must be in a primary care area]. Each of these required rotations is four weeks in length. Students are also required to take at least 14 weeks of electives and an ACLS course.

July	August	September	October	November	December	January	February	March	April
AHEC Rural/Urban rotations in specified disciplines/specialties (Selectives)									
Ambulatory rotations or Longitudinal Ambulatory rotation in specified disciplines (Selectives)									
Acting Internship (AI) in Medicine (M. Shaw) or Family Medicine (D. Roberts) or Pediatrics (P. Patel)									
Selective in a Surgical Discipline OR Anesthesiology/Perioperative Medicine									
Neurology Clerkship (M. Sowell)									

Academic Year 2011-2012

The diagram below shows the 4-year curriculum schedule for **AY 2011-2012:**

First Year Curriculum

August	September	October	November	December	January	February	March	April	May
	First Quarter		Second Quarter			Block I	Block II	Block III	
	Gross Anatomy					Genetics & Molecular Medicine			
	Intro to Clinical Medicine (ICM) 1a					Intro to Clinical Medicine 1b (ICM)			
	Interdisciplinary Clinical Cases (ICC) 1a					Interdisciplinary Clinical Cases (ICC) 1b)			
			Neurosciences			History of Medicine			
	Microanatomy		Embryology			Physiology			

Second Year Curriculum

In addition to the required courses, second year students must take at least two hours of electives. (Students may meet this requirement in the summer between their first and second year by participating in clinics.) They must also take a Basic Life Support course in late June before the third year starts. This BLS is considered part of the second year curriculum.

August	September	October	November	December	January	February	March	April	
	Block I	Block II	Block III		Block IV	Block V	Block VI		
	Intro to Clinical Medicine (ICM) 2a					Intro to Clinical Medicine (ICM) 2b			
	Interdisciplinary Clinical Cases (ICC) 2a					Interdisciplinary Clinical Cases (ICC) 2b			
	Microbiology & Immunology								
	Pharmacology								
	Pathology (S. Hollensead & T. Ayyoubi)								
	Genetics					Medicine & Spirituality	Clinical Neuroscience (CNS)		

Third Year Curriculum

The Third Year clerkships run concurrently throughout the academic year from July to June. The sequence of clerkships is organized on a track basis. Each student selects his/her track schedule near the end of the second year.

July	August	September	October	November	December	January	February	March	April	May	June
Family Medicine Clerkship (6 weeks)											
Pediatrics Clerkship (8 weeks)											
Basic Surgery Clerkship (8 weeks)											
Internal Medicine Clerkship (10 weeks)											
Obstetrics and Gynecology Clerkship (6 weeks)											
Psychiatry Clerkship (6 weeks)											

Fourth Year Curriculum

The Fourth Year clinical rotations and electives run concurrently throughout the academic year from July to early May. In addition to the required Neurology rotation, students must take an Acting Internship (AI) in Family Medicine or Medicine or Pediatrics; a Surgical/Perioperative Medicine selective; an AHEC rotation; and an Ambulatory rotation [the Ambulatory rotation or AHEC must be in a primary care area]. Each of these required rotations is four weeks in length. Students are also required to take at least 14 weeks of electives and an ACLS course.

July	August	September	October	November	December	January	February	March	April
AHEC Rural/Urban rotations in specified disciplines/specialties (Selectives)									
Ambulatory rotations or Longitudinal Ambulatory rotation in specified disciplines (Selectives)									
Acting Internship (AI) in Medicine or Family Medicine or Pediatrics									
Selective in a Surgical Discipline OR Anesthesiology/Perioperative Medicine									
Neurology Clerkship									

As described in this database, we have made changes in the curriculum since our base year. The 2012-2013 Schedule follows this one.

The diagram below shows the 4-year curriculum schedule for **AY 2012-2013**:

First Year Curriculum

August	September	October	November	December	January	February	March	April	May
First Quarter			Second Quarter			Third Quarter			Fourth Quarter
Gross Anatomy (J. Brueckner)					Genetics & Molecular Medicine (S. Ellis & J. Hersh)				
Intro to Clinical Medicine (ICM) 1a (C. Kodner)					Intro to Clinical Medicine (ICM) 1b (C. Kodner)				
			Neurosciences (G. Mower)						
Microanatomy (R. Colella)			Embryology (R. Turcu)			Physiology (J. Falcone)			

Second Year Curriculum

In addition to the required courses, second year students must take at least two hours of electives. (Students may meet this requirement in the summer between their first and second year by participating in clinics.) They must also take a Basic Life Support (BLS) course in late June before the third year starts. BLS is considered part of the second year curriculum.

August	September	October	November	December	January	February	March	April		
Block I		Block II		Block III		Block IV		Block V		Block VI
Intro to Clinical Medicine (ICM) 2a (C. Kodner)					Intro to Clinical Medicine (ICM) 2b (C. Kodner)					
Microbiology & Immunology (U. Streips)										
Pharmacology (M. Williams)										
Pathology (S. Hollensead)										
					Religion & Medicine Josephson		Clinical Neuroscience (CNS) (T. Feldmann & M. Sowell)			

Third Year Curriculum

The Third Year clerkships run concurrently throughout the academic year from July to June. The sequence of clerkships is organized on a track basis. Each student selects his/her track schedule near the end of the second year.

July	August	September	October	November	December	January	February	March	April	May	June
Family Medicine Clerkship (6 weeks) (D. Roberts)											
Pediatrics Clerkship (6 weeks) (P. Patel)											
Basic Surgery Clerkship (8 weeks) (S. Bond)											
Internal Medicine Clerkship (8 weeks) (K. Milam)											
Obstetrics and Gynecology Clerkship (6 weeks) (R. Fleming)											
Psychiatry Clerkship (6 weeks) (R. Tamas)											
Neurology Clerkship (4 weeks) (A. Vaishnav) (moved to 3 rd year beginning 2012-2013)											
Career Exploration/Electives (up to 4 weeks)											

Fourth Year Curriculum

The Fourth Year clinical rotations and electives run concurrently throughout the academic year from July to early May. Students must take an Acting Internship (AI) in Medicine, Family Medicine or Pediatrics; a Surgical/Perioperative Medicine selective; an AHEC rotation; and an Ambulatory rotation. The Ambulatory rotation or AHEC must be in a primary care area. Each of these required rotations is four weeks in length. Students are also required to take at least 14 weeks of selectives/electives and an ACLS course.

July	August	September	October	November	December	January	February	March	April
AHEC Rural/Urban rotation in specified disciplines/specialties (Selective)									
Ambulatory rotation or Longitudinal Ambulatory rotation in specified disciplines (Selective)									
Acting Internship (AI) in Medicine (K. Milam) or Family Medicine (D. Roberts) or Pediatrics (P. Patel)									
Selective in a Surgical Discipline OR Anesthesiology/Perioperative Medicine									
Neurology Clerkship (4 weeks) (A. Vaishnav) (2012-2013 is last year Neurology is offered in 4 th year)									

b. If the medical school offers multiple educational program tracks, provide a separate description of any tracks not included in the AAMC Curriculum Directory.

In 1998, the Trover Foundation/University of Louisville Off-Campus Teaching Center began offering medical students from the University of Louisville the opportunity to complete the last two years of medical school in a rural community. The Trover Campus is located in Madisonville, Kentucky, and is designed to accommodate 6-8 third year and 6-8 fourth year students in their clinical rotations. Students apply for dedicated admission to the Trover Rural Track program by indicating their interest on the University of Louisville Secondary Application. Since 1998, 77 students have completed their clinical years at the Trover Campus. (see [Appendices ED-5.b*1 and ED-5.b*2](#)).

In June 2011, the LCME approved a pilot project for an accelerated curriculum track at the Trover Campus, the Rural Medicine Accelerated Track or RMAT, which will provide a pathway to the M.D. degree in three years ([Appendix ED-5.b*3](#)). The track basically utilizes the summers so that students complete the required 130 weeks in three years. It is designed to facilitate entry into the care of the underserved for a small number of graduates each year. Our plan for RMAT is to roll it out in two phases. Phase one (the pilot phase) will begin as soon as possible; currently, we anticipate graduating the first RMAT students in May 2014 or 2015. The pilot phase of RMAT will be based at the regional ULSOM Trover Campus in Madisonville (population 20,000) in rural Western Kentucky. We are still very early in the process and have not yet had a student complete the three-year track.

See also Required Courses and Clerkship Rotations (A. Summary Data).

ED-5-A. A medical education 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 assessment used in courses and clerkship rotations will provide medical students with opportunities to develop lifelong learning skills. These skills include self-assessment on learning needs; the independent identification, analysis, and synthesis of relevant information; and the appraisal of the credibility of information sources. Medical students should receive explicit experiences in using these skills, and they should be assessed and receive feedback on their performance.

a. Provide sample weekly schedules in the Appendix that illustrate the amount of time in the first and second years (phases) of the curriculum that students spend in scheduled activities.

For AY 2010-2011, lectures represented 49% of the total course hours for the required first year courses and 63% for the second year; for AY 2011-2012, lectures represented 49% of the total course hours for the first year required courses and 56% for the second year courses (see Appendix ED-5-A.a*1 for sample weekly schedules and the OME analysis of formal instructional hours).

In March 2011, the EPC approved a set of guidelines for building the preclinical schedule (Appendix ED-5-A.a*2). These guidelines call for achieving a goal over the next few years of “no more than 50% lecture” in years one and two; they also directed the course directors to begin to move all lectures to mornings. These guidelines were used by the second year course directors for AY 2011-2012; both first and second year course directors used the new guidelines for building the AY 2012-2013 schedule. For academic year 2012-2013, the EPC directed preclinical course directors to make additional cuts in lecture hour totals. In addition, the EPC began using the proposed AAMC MedBiquitous definitions of instructional methods to create and monitor the preclinical course schedule. With the cuts and AAMC definitions, first and second year schedules are each under 50% lecture: first year, 44.2%; second year, 47.8% (Appendix ED-5-A.a*3).

b. Provide a list of the types of instructional formats that the medical school characterizes as active learning.

- Team Based Learning/Integrated Team Based Learning (Physiology, Pharmacology, Clinical Neurosciences, Microbiology, Pathology)
- Problem or Case Based Learning (Physiology, Genetics, Clinical Neuroscience, Biochemistry, Introduction to Clinical Medicine)
- Interdisciplinary Clinical Cases (first and second years)
- Small Group Case-Based Sessions (Neurosciences)
- Independent Learning Assignments (Neurosciences, Pharmacology, Introduction to Clinical Medicine, Microanatomy, Gross Anatomy) The term “independent learning” is used for a variety of learning experiences that require students to direct their own learning and also “count” toward the final grade. Examples include a self-instructional module that students must work through on their own and is assessed on the first exam of the course (Neurosciences), a web-based exercise involving drug interactions that is assessed on a quiz (Pharmacology), clinical exercises at the end of a chapter that must be completed independently but are tested on an exam (Gross Anatomy), a report on a pathologic disease that is assessed by the course faculty (Pathology), a

genetics exercise focused on the possibility of a particular mutation being present in an individual that is assessed on a take home quiz (Genetics), and Wiki (Biochemistry, Religion and Medicine)

- Patient Presentations (clerkships)
- Laboratory-based learning (Gross Anatomy, Microanatomy, Neurosciences)
- Simulations (Standardized Patient Clinic: ICM, ICC, Family Medicine, Surgery, Neurology, Obstetrics/Gynecology, Pediatrics, Psychiatry; Patient Simulation Center: Pathology, ICM, Pharmacology, Physiology, Obstetrics/Gynecology, Pediatrics)
- Computer-based learning (At the Intersection of Medicine and Religion, Introduction to Clinical Medicine, Genetics, Biochemistry, Family Medicine, Medicine, Pediatrics)

c. Describe the time available for students to prepare for active learning.

In AY 2010-2011, students had two hours on the schedule to prepare for each TBL (there were approximately 15 TBLs during the year). In addition, Wednesday mornings were almost always protected so that students could prepare for active learning or schedule non-lecture activities, for example, a preceptorship. On average, students had approximately 5-7 hours each week to prepare for active learning.

The EPC guidelines for building the first and second year schedules ([Appendix ED-5-A.a*2](#)) were available in time for use by the second year course directors, who were redesigning the second year schedule for AY 2011-2012 to increase horizontal integration among courses using the Pathology's organ system schedule and to introduce an "integrated TBL" component to the second year curriculum. Thus, the AY 2011-2012 second year schedule provided active learning preparation time primarily in the afternoon, and more of it than the students previously had, which the students appreciated. Note: The one exception to this approach was the integrated TBL, which occurred on Friday afternoons due to the clinical schedule of the course director; for this reason, Friday mornings were protected for integrated TBL preparation in AY 2011-2012.

We anticipate that over the next two to three years, the EPC schedule guidelines ([Appendix ED 5-A.a*2](#)) will be fully operational. In addition, the EPC is responsible for approving the schedule each semester (or annually now in the case of second year), which means that the EPC reviews the proposed schedule in advance so that changes may be made if more preparation time for active learning is needed, which, in fact, was one of the reasons the EPC instituted the new schedule building guidelines. Finally, one of the new EPC schedule guidelines states that course directors may not add lecture hours to their courses without EPC approval. This policy serves as a deterrent to "lecture hour creep."

d. In the context of the definition of active learning included in the “Special Instructions” to this section, provide examples that illustrate the opportunities that exist in the curriculum for students to do each of the following:

i. Assess their own learning needs

Physiology and Pathology TBLs: Individual Readiness Assessment Test (IRAT), administered at the beginning of each TBL and Integrated TBL.

Interdisciplinary Clinical Cases, Years One and Two (ICC’s): Students are responsible for coming to each ICC with prepared answers to case-based questions that they will be discussing during the ICC. In addition, students rotate the responsibility of interviewing a standardized patient prior to the ICC and determining what the ICC group will need to know about the patient to solve the case.

Pathology TBL: Students receive a worksheet prior to the TBL and must decide what they need to learn to complete the worksheet, which they must complete, bring to the TBL, discuss with their team at the beginning of each TBL, and then use to answer the IRAT as a team.

Integrated TBL (iTBL): Launched in AY 2011-2012, this new form of TBLs serves “as a new and integrated extension of Medical Microbiology, Pathology, and Pharmacology; students prepare for iTBLs, held almost every week, in much the same way they prepare for TBL—they must prepare answers to questions on their own using their own resources.

Clinical Clerkships: Students are asked to come to the mid-clerkship meeting with self-generated goals for the remainder of the clerkship.

Introduction to Clinical Medicine (ICM), Years One and Two: In ICM 1, students complete a culture module on their own and then take a computer-based quiz; they also complete a computer-based assignment on biostatistics that they prepare for on their own; both of these learning/assessment experiences require that students assess their own learning needs. In ICM 2, students work through several modules online and then complete a web-based quiz, for example, the Cardiac Murmurs Study Module. Students must determine what they need to learn in order to complete the quiz successfully. Some of the standardized patient encounters require students to assess their own learning needs. For example, in ICM 2, students practice taking a substance abuse history with a standardized patient and then complete a self- assessment of their skills.

ii. Identify, analyze, and synthesize information relevant to their learning needs

Physiology PBL: To prepare for each PBL, students must use information provided by the course director about a patient to formulate potential hypotheses on the assessment of the chief complaint, and develop and ask questions about what might be wrong. They must decide how to use the information given them to achieve their learning needs (develop hypotheses, etc.).

Pathology Patient Centered Response Assignment: Each student is assigned a pathologic disease topic. The student must write a one page report giving the patient the diagnosis and explaining the disease process in a way that facilitates patient comprehension of the disease and diagnosis. Any ethical concerns that the disease might impose on the patient or family must also be included.

Neurosciences Small Group Cases: Students are given a case history that details the signs and symptoms of a patient. Students must determine the site of the lesion in the nervous system

that explains the symptoms. Students must also identify recent publications pertaining to their case. Finally, each student must make a presentation about the case.

Pharmacology: Self instructional exercises involve students in learning about the applications of a specific drug to a condition or disease and then submitting answers to questions; students must decide what they need to do to learn the material and answer the questions correctly.

Clinical Clerkships: Students in all of the required clinical clerkships must identify, find, and synthesize information whenever they prepare to present a case. Students must also practice these skills when they complete assigned clinical case modules in Family Medicine (fmCASES), Medicine (SIMPLE), Pediatrics (CLIPP) and Surgery (WISE-MD) and the Patient Assessment paper (Psychiatry).

iii. Assess the credibility of information sources

Introduction to Clinical Medicine (ICM), Years One and Two: In ICM 1, students complete an Informatics module on clinical questions that requires that they assess the credibility of information sources; in ICM 2, students must assess the credibility of information sources as they prepare for evidence-based medicine groups.

Clinical Clerkship Patient Presentations: All clerkships require students to conduct their own research about one or more patients and report their findings to the team.

Interdisciplinary Clinical Cases (ICCs): Before each ICC, students must answer questions using resources provided by the course director as well as resources they identify and then report their answers to the entire ICC group when it meets.

Case Based, TBL, and Problem Based Learning: Every small group, case based learning experience requires students to assess the credibility of information sources and make decisions about which information to use to report back to their group or answer questions on a quiz or for the group.

History of Medicine: Students must assess the credibility of information sources when they write their biographical paper.

iv. Share the information with their peers and supervisors

Interdisciplinary Clinical Cases, Years One and Two (ICCs): Students are required to work together on answering questions about the case to be discussed in each ICC. A set of questions is provided by the course director and students then divide up the work and regroup to share what they have learned.

Topics in Clinical Medicine Small Group Presentations (TCM): When the TCM course was piloted in spring 2012, students were divided into groups and each group created a Powerpoint presentation for their classmates. Each group member had a role to play in gathering information and preparing the slides.

Clinical Clerkship Patient Presentations: All clinical clerkships require students to present patients at the bedside. In addition, Surgery uses an “oral exam” approach as part of its assessment program, where students must present to the Surgery faculty.

Surgery: Orals.

Obstetrics/Gynecology: Students must complete a case study and report their findings in a small group setting led by a faculty member.

Neurosciences Case Presentations: All students must prepare a case and present it to faculty.

TBL, PBL, and Case Based Groups: All of these learning experiences require students to share information with their peers when the group gets together.

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

Increasing the opportunities in the curriculum to develop the skills needed for lifelong learning is an EPC priority and course and clerkship directors have been encouraged to consider this priority when they review their course or clerkship each year. In AY 2010-2011, almost every preclinical course included at least one assignment that created an opportunity to learn through self-directed, independent study (see below) that was assessed and awarded points toward the final grade (Appendix ED-5-A.e*1)

First Year Courses

Gross Anatomy: Radiograph Self Instruction—assessed on examination

Neurosciences: Sidman & Sidman Self Study—assessed on the first course examination

Biochemistry: Team Based Learning Exercise—assessed on quizzes and Wiki participation

Physiology: Problem Based Learning—assessed by faculty facilitator and on block exams

Introduction to Clinical Medicine I: Culture Module # 1—assessed on Blackboard quiz

The History of Medicine: Biographical Essay—assessed using a grading rubric

Second Year Courses

Pathology: Autopsy Report and Death Certificate Assignment—reviewed for completeness

Pharmacology: Independent learning assignment on drug interactions—assessed using questions posted to Blackboard

Genetics: Independent learning on “hereditary cancer” topic—assessed on a take home quiz

At the Intersection of Medicine and Religion: Group wiki assignment on clinical scenarios that have a religious or spiritual factor; graded by the course director

Microbiology: Case-based laboratory session—assessed on group quiz

Introduction to Clinical Medicine 2: EKG interpretation: assessed on Blackboard quiz

Clinical Neurosciences: Self-study module: tested on block exam

Clinical Clerkships

Family Medicine, Medicine, Pediatrics and Surgery: These clerkships all require students to complete independent learning assignments using computer-based cases. In addition, the uniform clinical clerkship performance evaluation contains behaviors that link to mastery of lifelong learning skills, for example, “generates differential diagnosis” and “demonstrates skills in evidence-based medicine.” Some clerkships also have graded assignments that reflect student mastery of lifelong learning skills. For example, students must submit 2 soap notes and a chronic disease documentation sheet in the Family Medicine clerkship and a clinical vignette in the Medicine clerkship.

f. Is demonstration of these skills considered as a criterion for grading in any course or clerkship rotation?

Demonstration of lifelong learning skills, specifically active learning skills, is a criterion for grading in both preclinical and clinical courses (see also response to ED-5-A.e). For example, all preclinical small group, case based learning experiences carry some weight in terms of the course grade; students receive a grade that reflects their ability to prepare for the group session and participate actively. In addition, several of the ICM assignments require mastery of independent learning skills; these assignments are graded and count towards the course grade. During the required clinical clerkships, all of the students are evaluated using a uniform clinical performance instrument. Several of the behaviors in the “patient care” and “medical knowledge” sections require mastery of lifelong learning skills, for example, “able to demonstrate clinical reasoning” or “prioritizes problem list appropriately.” In addition, students in Family Medicine, Medicine, Pediatrics and Surgery complete web-based cases, which carry weight toward the clerkship final grade.

Also see Required Courses and Clerkship Rotations (A. Summary Data).

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

ED-7. The curriculum of a medical education program must include current concepts in the basic and clinical sciences, including therapy and technology, changes in the understanding of disease, and the effects of social needs and demands on care.

a. Provide one or more examples of where in the curriculum attention is paid to students' development of the following skills and understanding:

i. Skills of critical judgment based on evidence: Students have opportunities to learn and practice skills of critical judgment based on evidence in the ICCs, both as they prepare for each ICC by evaluating resources and during each ICC, when their faculty mentor models critical judgment based on evidence as they work through each case and provide feedback on the answers that students have presented. Students also learn and practice evaluating evidence critically in the Pathology TBL session, where the course director, a clinician, and a pathologist model this skill as they work through each case and provide students with feedback as they respond to questions. Finally, the Introduction to Clinical Medicine course teaches critical evaluation of the evidence in several units, including Biostatistics/Epidemiology, Evidence Based Medicine, and Informatics. In the clinical clerkship rotations, students must read the literature and be prepared to discuss it for small group sessions, conferences, and at the bedside. They must also attend Grand Round presentations. These activities provide students with opportunities to develop skills of critical judgment based on evidence and to receive feedback from faculty and residents and to learn from their peers.

ii. Skills of medical problem-solving: Students have many opportunities to develop and practice medical problem solving skills. The Introduction to Clinical Medicine is a primary source of preclinical instruction of this skill. In ICM 2, all of the standardized patient encounters provide opportunities for students to practice medical problem solving and receive formative feedback from an SP; students are also taught how to develop a differential diagnosis and how to write a soap note in ICM. In addition, every ICC involves students in a medical problem solving situation. The TBL and PBL sessions in the preclinical years also teach students medical problem-solving skills. During the required clinical clerkships, students present individual cases and receive feedback from attendings and residents about their ability to diagnose a patient's condition or illness on a daily basis. The web-based case-based modules also provide opportunities for students to practice medical problem-solving skills.

iii. Knowledge and understanding of societal needs and demands on health care: Students are taught about societal needs and demands on health care in the Introduction to Clinical Medicine course, which includes units on Ethics, Health Care for Older Adults, and Health Care Financing and Managed Care. Students also learn about this important topic during the required Community Preceptorship, which exposes them to community resources that deal with societal needs such as the care of the indigent and HIV/AIDS patients. One of the most popular second year electives gives students an opportunity to work at one of four free clinics, which provides a real world view of this topic. Also, the Genetics course includes six patient interviews, where students learn about the kinds of issues patients face as they deal with very complex medical

needs. During the clinical years, all students have opportunities to learn about societal needs and demands on health care in their required clerkships, all of which expose students to care for underserved and underrepresented groups of patients. In addition, students must complete a community project related to health care as part of the requirements for the third year Family Medicine clerkship.

b. Indicate whether students are explicitly assessed on these skills and this knowledge in any required courses or clerkship rotations and describe the manner in which the knowledge and skills are assessed.

Yes, students are explicitly assessed on these skills. Students are evaluated on their ability to judge evidence critically and solve medical problems in the block examination questions, many of which begin with a clinical vignette, and the TBLs. Students also receive points for their participation and skills in the case based small group sessions in Biochemistry and Physiology. Medical problem solving skills are assessed in the Clinical Skills Examination 2, housed in the ICM course, and the Clinical Skills Examination 3, a school requirement. During the clinical years, all students are assessed on their ability to judge evidence critically and solve medical problems on the uniform clinical performance assessment tool; the “patient care” category includes behaviors such as generating a differential diagnosis and generating and adjusting a treatment plan, and the “practice-based learning” category includes behaviors such as demonstrates skills in evidence-based medicine. The NBME subject examinations used in all of the required clinical clerkships also assess student mastery of these skills, as do the computer-based clinical cases students must complete.

Students are assessed on their knowledge and understanding of societal needs and demands on health care in the preclinical years on ICM examinations and quizzes, and the ICM Community Preceptorship evaluation form. Pharmacology also includes questions on this topic on the block examination. During the clinical years, students are assessed on their knowledge and understanding of societal needs and demands on health care on the uniform clinical performance assessment tool (“system based practice” category: awareness of the larger context and system of health care and effectively call on system resources to provide optimal care) and on NBME subject exams.

See also information for standard ED-28, and the Required Course and Required Clerkship Rotation Forms.

ED-8. The curriculum of a medical education program must include comparable educational experiences and equivalent methods of assessment across all instructional sites within a given discipline.

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

Although the types and frequency of problems or clinical conditions seen at each instructional site may vary, each course or clerkship rotation must identify any core experiences needed to achieve its objectives and ensure that students receive sufficient exposure to such experiences. Similarly, although the proportion of time spent in inpatient and ambulatory settings may vary according to local circumstances, in such cases the course or clerkship rotation director must ensure that limitations in learning environments do not impede the accomplishment of objectives.

To facilitate the comparability of educational experiences and the equivalency of assessment methods, the course or clerkship rotation director should orient all participants, both faculty and students, to the educational objectives and grading system used. This orientation can be accomplished through regularly scheduled meetings between the director of the course or clerkship rotation and the directors at the various instructional sites that are used.

The course and clerkship rotation leadership should review medical students' evaluations of their experiences at all instructional sites to identify any persistent variations in educational experiences or assessment methods.

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

NOTE: All preclinical courses are taught at the Louisville campus

a. The means by which faculty members at each site are oriented to the objectives and grading system for the course or clerkship rotation.

Faculty members are oriented to the clerkship objectives and grading system for each clerkship rotation by the clerkship director, with support from the clerkship coordinator. All faculty at each site receive a copy of the clerkship syllabus, which details both the clerkship objectives and grading system. In addition, the clerkship objectives and grading system for each clerkship are discussed at individual departmental meetings, which faculty who teach and supervise medical students attend. AHEC faculty and faculty who teach at the Trover site also receive the syllabus and interact with the clerkship directors for additional information, as needed.

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

Clerkship directors communicate with faculty at each site regularly via email and departmental or clerkship meetings. Also, since the last site visit we have initiated more regular visits by the clerkship directors to our site in Madisonville, Kentucky; in addition, the Associate Dean at the Trover Campus (or his designee) attends the monthly Clinical Curriculum Committee by ITV and interacts directly with clerkship directors at those meetings. He also travels to Louisville every month and meets with clerkship directors, etc. as needed.

c. The process by which faculty development activities related to teaching and assessment are made available to instructional staff across sites and the frequency with which these activities are provided.

Faculty development activities related to teaching and assessment are offered at the university, school, and department level. The University programs are offered through the University of Louisville Delphi Center for Teaching and Learning, some of them in partnership with all of the HSC schools. In AY 2010-2011, this partnership offered two faculty development programs; the first program focused on Team Based Learning and offered two back-to-back workshops by Dean Parmalee, a nationally known expert. All faculty at all sites were invited via email to attend. The Delphi Center also offered a day-long Celebration of Teaching and Learning program for all University faculty; this program focused on critical thinking skills. The keynote speaker offered a pre-Celebration program at the HSC campus to enable more medical school faculty to attend, and all faculty were invited via email to attend. The Delphi Center also provides individual consultation on any teaching and learning subject, when asked. The OME invited a Delphi Center assessment expert to present at the joint meeting of the first and second year curriculum committees.

The Medical Education Research Unit (MERU), housed in the Office of Medical Education, also launched a confidential Teaching Consultation Service in AY 2010-2011 so that faculty seeking to improve their teaching could receive one-on-one consultation from an expert outside of their department. MERU also sponsors a monthly Medical Education Research Team session that sometimes focuses on teaching and learning topics. These programs are marketed via email and announcements in the University's "UofL Today" daily email blasts. In addition, some departments deliver their own faculty development programs focused on teaching and learning. For example, the Pathology Department convenes an annual education retreat after the Pathology course ends; the agenda includes both a review of the course and a teaching topic. The MERU website (<http://louisville.edu/medschool/researchunit>) has a section on "faculty development" that includes resources for teaching and assessment, and the Delphi Center for Teaching and Learning (<http://louisville.edu/delphi/>) also posts faculty development resources.

d. The mechanisms used for review and sharing of student evaluations of their educational experiences, data regarding students' completion of required clinical experiences, student performance data, and any other data reflecting the comparability of learning experiences across sites. Describe the specific types of data reviewed and the individuals or groups responsible for reviewing the information.

Student evaluations of their educational experiences are collected electronically. All students are required to complete an evaluation of each required clerkship. The Office of Medical Education coordinates this process for the Educational Policy Committee, which conducts a formal

evaluation of each clerkship annually. The clerkship director and department chairs, as well as the Associate Dean for Medical Education, select OME staff, the Associate Dean for Faculty Affairs, and the Dean, have electronic access to the results of the student evaluations. In addition, every teaching faculty in each clerkship receives a link to the results of his or her individual teaching evaluation results.

Regarding student performance data and data reflecting the comparability of learning experiences across sites, the EPC reviews student performance data as part of the annual clerkship review process. The EPC clerkship evaluation completed by students contains questions about the learning experience at the VA rotation for the Psychiatry, Medicine, and Surgery rotations, all of which send students to rotate there. These responses are aggregated and reviewed by the individual clerkship directors and the EPC. In addition, students in the third year required Family Medicine clerkship complete an evaluation of their AHEC experience so that the clerkship director can identify patterns in student responses related to specific AHEC physicians that may need attention (Appendix ED-8.d*1). Finally, student performance and select questions related to their clinical experiences are reported in the Office of Medical Education's *Annual Report*, and the EPC, EAC, and individual clerkship directors review questions in the annual *AAMC Graduation Questionnaire* that relate to clinical learning experiences.

e. The mechanisms employed to address inconsistencies across sites in such areas as student evaluations of courses and clerkship rotations and students' grades.

In the preclinical courses, all students complete the curriculum at the same sites and thus inconsistencies across sites are not an issue.

In the clinical clerkship rotations, student evaluations of required clerkships are reviewed by the clerkship directors and the Educational Policy Committee (EPC); inconsistencies among clinical sites could be reported by students in the comment boxes at the end of the questionnaire and any pattern in these responses would be reported to the EPC as part of the EPC's annual clerkship review process. Since the last site visit, the EPC has not had to address any inconsistencies across sites for any required clerkship.

In addition, inconsistencies among sites could be reported directly to a clerkship director, the Interim Associate Dean for Student Affairs, or the Associate Dean for Medical Education, either because individual students or a track captain [third year students who serve as liaisons to the clerkship directors and the Associate Deans] has a concern. In these instances, the clerkship director would discuss a concern with the faculty who teach at the site in question, provide guidance about the needed changes, and then the appropriate changes are made. As a final option, the clerkship director may determine that a systems-issue (for example, inadequate faculty or patients) may be the root cause of the inconsistency, in which case a decision may be made not to send students to this site. Also, the Family Medicine clerkship director has removed individual AHEC preceptors from the roster (1-2 each year) when the results of the student AHEC evaluations and her conversations with individual students warrant this action.

Regarding the two campuses, the Office of Medical Education reviewed the results for AY 2010-2011 of the student evaluations and student USMLE Step 2 CK performance at the Louisville and Madisonville campuses (Appendix ED-8.e*1); this analysis showed no significant differences in results between the two campuses.

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See also information for standard ED-41 in this section and standard FA-11 in Section IV: Faculty if the school operates one or more geographically separate instructional sites/ campuses.

ED-9. A medical education program must notify the LCME and the CACMS, when applicable, of its plans for any major modification of its curriculum.

The notification should include the explicitly-defined goals of the change, the plans for implementation, and the methods that will be used to evaluate the results. Planning for curriculum change should consider the incremental resources that will be required, including physical facilities and space, faculty and resident effort, library facilities and operations, information management needs, and computer hardware.

In view of the increasing pace of discovery of new knowledge and technology in medicine, the LCME and the CACMS encourage experimentation that will increase the efficiency and effectiveness of medical education.

a. Indicate the year of implementation for the last major revision of the curriculum:

AY 2011-2012*

*Since the 2005 LCME site visit, the school has been making incremental changes to the curriculum. Although we have not implemented “major modifications” that would require that we notify LCME of our plans, since 2009, we have begun to focus more effort on analyzing and beginning to increase the pace of our changes, in large measure as a result of two task force reports that are detailed in ED-9-b, c, and d below. At the current time, we are in the process of implementing the remaining task force recommendations.

b. Summarize the principal features of that curricular revision, including the reasons for the change and the specific goals that the change was designed to accomplish.

The curriculum at the medical school is undergoing change, and will continue to do so, as a result of an extensive and intensive curriculum review process that began early in AY 2009-2010 and ended early in AY 2011-2012 (refer to response for ED-9-c). The global question asked of the task forces that were convened to conduct this review was “How might we better prepare our students for success in years three and four (the clinical block) and the licensure examinations, and, ultimately as practicing physicians who can skillfully incorporate medical scientific knowledge into their patient care and decision-making” (see [Appendices ED-9.b*1 and ED-9.b.*2](#) for the charges to the Clinical Block Task Force and the Preclinical Block Task Force).

Although the responses to this question are discussed in detail in ED-9-c of this database, the key features of the proposed changes to the curriculum are as follows: a) increased integration of the basic and clinical sciences, both horizontally and vertically; b) fewer lectures and more opportunities for students to assume responsibility for their own learning through active learning and independent learning experiences; c) increased use of technology to support learning and assessment of student mastery of educational objectives; d) creation of “tracks” in the fourth year; and, ultimately, e) a “hybrid” design for the four-year curriculum.

Planning and implementation of recommendations that came out of the curriculum review process began in AY 2010-2011. These first changes consisted of piloting of a new required third-year course, Topics in Clinical Medicine (TCM), and new EPC policies that allowed students to a) use work completed at AHEC sites to fulfill third-year clerkship requirements to count toward fourth year requirements and b) use third year vacation time to take a Career Exploration elective. The

TCM course was implemented to create learning experiences that would eliminate “gaps” in the curriculum as evidenced by LCME standards, the results of the *AAMC Graduation Questionnaire*, or a review of the school’s educational objectives; the new EPC policies were enacted to create more flexibility in the clinical block schedule and to enable students to explore non-core medical disciplines earlier in their medical education.

Other changes that were approved or implemented in AY 2010-2011 as a result of the curriculum review process follow: a) A laptop requirement was implemented for the class of 2015; b) The EPC replaced the second year elective requirement with a preclinical elective requirement, which permits students more flexibility to complete the required two credits of preclinical electives any time before the end of their second year; c) The second year Genetics course and the first year Biochemistry course were replaced by a new required first-year course, Genetics and Molecular Medicine; and d) A second year “integrated” curriculum schedule was piloted, including a weekly integrated TBL session. These changes were implemented to facilitate greater integration between the basic sciences and the clinical sciences and to allow students greater flexibility in career planning.

Additional changes to the curriculum are planned for AY 2012-2013 and beyond as part of this curriculum review process (refer to response for ED-9-c). The changes for AY 2012-2013 focus on EPC policy changes, technology purchases, and new educational initiatives that will lay the groundwork and provide an infrastructure for the hybrid curriculum that will be designed and implemented over the next few years.

EPC responsibilities: In June 2011, the Executive Faculty voted to expand the EPC policies to reflect LCME standards (Appendix ED-9.b*3).

EPC structure: In June 2010, the Executive Faculty voted to a) limit EPC terms to 2 consecutive three-year terms and b) add a member to represent the Trover Campus. In AY 2010-2011, the EPC replaced the First Year Course Director Committee, the Second Year Course Director Committee, and the Clerkship Director Committee, all ad-hoc committees, with five formal EPC subcommittees (First Year Curriculum Committee, Second Year Curriculum Committee, Clinical Curriculum Committee, Academic Technology Committee and Curriculum Integration Committee), each with formal responsibilities and membership (Appendix ED-9.b*4).

NOTE: The Curriculum Integration Committee has since been renamed the Curriculum Management Committee as a result of a recommendation that came out of the curriculum review process.

Curriculum Database: The EPC recommended a curriculum mapping system, LCMS+, which the Dean approved purchasing; the system was purchased in February 2012, and OME staff and course and clerkship directors began training with LCMS+, which we branded RedMed, in spring/summer 2012 and became operational early in AY 2012-2013. The students began accessing course materials in fall 2013, as the work of entering learning objectives linked to the school’s educational work continued.

New Positions: A Director for Preclinical Curriculum and Assessment position and an Assistant Dean for Clinical Education position were created and filled in AY 2011-2012; in addition, a proposal to pilot an Educator Consultants initiative to support faculty as we move through the proposed curricular changes was funded by the Dean and three faculty were hired as Educator Consultants for AY 2012-2013 (Appendix ED-9.b*5).

Virtual Microscopy Initiative: In fall 2011, the Dean approved a proposal to migrate to a virtual microscope system, which will increase access to slides across the curriculum, as appropriate (Appendix ED-9.b*6); the system has been purchased, slides were sent out for scanning, and students are piloting the virtual microscope system.

c. Describe the planning process for that curricular revision, identifying the individuals, committees, or others involved.

Between September 2009 and July 2011, two task forces, the Clinical Block Task Force and the Preclinical Block Task Force, and one Committee, the Curriculum Implementation Committee (CIC), reviewed the medical student curriculum and developed recommendations and implementation plans for changes in the four-year curriculum. In addition, the Dean hosted an LCME Retreat in August 2010 to launch the LCME self-study process and identify needed changes (please refer to the retreat Action Plan, Appendix ED-3-b*1).

The Clinical Block Task Force, created in September 2009, was the group charged by the Vice Dean for Academic Affairs with a thorough review of the clinical curriculum (Appendix ED-9.b*1); this extensive review, coupled with a review of the literature and of the curricula at our benchmark institutions, completed its work and issued a final report in January 2010 (Appendix ED-9-c*1). Chaired by the Associate Dean for Medical Education, with members drawn from faculty, administration, and students, the Clinical Block Task Force produced 14 recommendations (seven immediate action recommendations; seven AY 2011-2012 and beyond recommendations), one of which was to create a Preclinical Block Task Force. Thus, in April 2010, the Preclinical Block Task Force began its work (see Appendix ED-9.b*2 for a copy of the charge to the task force). This second task force, also chaired by the Associate Dean for Medical Education with members drawn from faculty, administration and students, issued its final report and recommendations in July 2010 (Appendix ED-9.c*2).

Both task forces met regularly and completed the following tasks: a) reviewed the existing UL curriculum; b) reviewed national trends in medical education and the curricula at our benchmark institutions and at regional medical schools; c) consulted with the course and clerkship directors; d) sought input from colleagues at other schools and the medical education literature in an effort to identify best practices and patterns of change; and e) developed short-term and long-term recommendations for the curriculum. The final reports of both task forces were sent first to the Vice Dean for Academic Affairs and then to the Educational Policy Committee (EPC), which discussed and then approved each report as it was received. Faculty Forum, the SOM Committee comprised of faculty representatives from each department, and Medical Council, which consists of the department chairs, also reviewed, discussed, and endorsed both task force reports. Ultimately, the Dean approved each task force report for implementation. It should be noted that the Dean hosted an LCME Retreat in August 2010, which also generated an Action Plan (Appendix ED-3.b*1) that was used to develop curricular recommendations, most specifically by the Preclinical Block Task Force.

After both task forces had completed their work and issued their recommendations, the Vice Dean for Academic Affairs convened the Curriculum Implementation Committee (CIC), also chaired by the Associate Dean for Medical Education. The CIC was charged with developing plans to implement the task force recommendations (Appendix ED-9.c*3). This committee began to meet in January 2011 and submitted its final report in July 2011 (Appendix ED-9.c*4). Like the task forces, members were drawn from faculty, administration, and the students. The CIC created five sub-groups (1) Technology, 2) Integration, 3) Educational Policy Committee, 4) Schedule, and 5) Courses, Clerkships, and Electives), each of which developed

implementation plans for a group of the recommendations and then reported back to the CIC for discussion and action. The CIC final report outlined three categories of recommendations/tasks and prioritized those recommendations that had a cost: 1) recommendations that had already been implemented; 2) recommendations/tasks that should be completed during AY 2011-2012; 3) recommendations/tasks that should be completed between AY 2012-2013 and AY 2014-2015. The CIC final report also included the LCME Retreat Action Plan action items in the three categories.

NOTE: The curricular changes listed in ED-9.a and ED-9.b all resulted from the work of the two Task Forces, the Dean's LCME Retreat, and the Curriculum Implementation Committee.

Some of the Task Force and CIC recommendations required funding, in some cases, substantial funding, for example, the curriculum mapping system, the laptop requirement, and the virtual microscope project. During AY 2011-2012, the Dean approved the funding needed to purchase a curriculum mapping system, pilot the Educator Consultant Group, and add technology staff to the School of Medicine Office of Academic Technology. He also approved a funding plan for the virtual microscope and funding for the creation of the Director for Preclinical Curriculum and Assessment position. By July 2012, 26 of the 41 CIC recommendations had been implemented, with the remaining recommendations in progress or scheduled for implementation (Appendix IS-1.e*3).

The EPC will be responsible for ensuring that all of the category 3 recommendations/tasks are completed in a timely manner.

d. Describe any plans for major modification of the present curriculum, along with the timetable for planning and implementation.

The Curriculum Implementation Committee (CIC) final report is serving as the blueprint for the development of a "hybrid" curriculum. At this point, 25 of the 26 CIC recommendations included in the "already implemented" or "implement during AY 2010-2011" categories in the CIC Final Report have been implemented; the one unimplemented recommendation is to provide all faculty who teach medical students with access to all course websites. Due to technology issues with the course management system used by the University (Blackboard), we cannot implement this change. However, RedMed does permit us to provide all faculty with access to course documents; thus we anticipate that this recommendation will be implemented during AY 2012-2013. Implementation of all of the recommendations in categories 3 (implementation scheduled between AY 2012-2013 and AY 2014-2015) and 4 (recommendations that have been funded or require funding) is being coordinated by the Educational Policy Committee, which will be responsible for the design of the hybrid curriculum, with advice from its Curriculum Management Committee.

Although the hybrid curriculum will not be totally implemented until AY 2014-2015, discussions have begun on the approach our school will take to design a hybrid curriculum that has a non-traditional framework but also reflects our school's culture. At this point, these discussions focus on increased horizontal integration of content; a more systems-based organization; increased clinical applications in the preclinical courses; and a new structure for the first year that will include short introductory or foundation modules in the basic sciences, followed by courses integrated in some fashion. The clinical block (years three and four) will consist of required clinical clerkships housed in clinical departments, electives, and at least one integrated course. In fact, implementation of the hybrid curriculum has already begun. In AY

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2010-2011, second year course directors piloted a new integrated schedule that was quite successful and is being used as a model for some of the modifications being discussed for the first year. The EPC's Curriculum Management Committee will be responsible for developing a proposal for the hybrid curriculum, which the EPC will then review, discuss, seek feedback on, and, finally, act on.

ED-10. The curriculum of a medical education program 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 that is 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 medical education

- a. Check the topics listed below that are included in the curriculum as part of a required course and/or an elective course. Provide the total number of sessions in which each topic is included in one or more required courses and clerkship rotations in the preclinical and clinical phase of the curriculum. To be included in this listing, the subject should be included in the objectives for the session or as a significant topic covered during that session.**
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Content Area	Subject Included in		Number of Sessions in Required	
	Required Course	Elective Course	Preclinical Course(s)	Clinical Clerkship Rotation(s)
Biostatistics	X		8 + 3 independent study assignments	--
Biomedical informatics	X		5	--
Clinical/translational research	X	X	2	-- ⁽¹⁾
Communication skills	X	X	33	7 + Daily ⁽²⁾
Community health	X	X	8	3 + Daily ⁽²⁾
Complementary/alternative health Care	X		3 + 1 independent learning assignment	⁽¹⁾ 1
Cultural competence	X	X	19	3 + Daily ⁽²⁾
End-of-life care	X		3	1 + 5 days ⁽⁰⁾
Epidemiology	X		59	1 + 1 ⁽²⁾
Evidence-based medicine	X		70	4 + 2 ⁽²⁾
Domestic violence/abuse	X		2	3 + 1 ⁽²⁾
Global health issues	X		4	1 + Daily ⁽²⁾
Health care financing	X	X	5	1 Daily ⁽²⁾
Health care systems	X	X	2	Daily ⁽²⁾
Health care quality improvement	X		1	2 + Daily ⁽²⁾
Health disparities	X		3	1 + Daily ⁽²⁾
Human development/life cycle	X		26	4 + Daily ⁽²⁾
Human sexual/gender development	X		4	2
Human sexuality/sexual functioning	X		7	1 + Daily ⁽²⁾
Medical ethics	X	X	14	2 + 5 days ⁽⁰⁾
Medical genetics	X		19 + 31 ⁽³⁾	3
Medical humanities	X	X	4 + 8 ⁽⁴⁾ + 8 ⁽³⁾	Daily ⁽²⁾
Medical jurisprudence	X	X	7	1 + Daily ⁽²⁾
Medical socioeconomics	X		1	--
Nutrition	X		21	4
Occupational health/medicine	X		1	--
Pain management	X	X	6	5 days ⁽⁰⁾
Palliative care	X	X	4	4 + 5 days ⁽⁰⁾
Patient safety	X		2	3 + Daily ⁽²⁾
Population-based medicine	X	X	8	--
Prevention/health maintenance	X		5	6 + Daily ⁽⁰⁾ + 1 Online case
Rehabilitation/care of the disabled	X	X	6	Daily ⁽²⁾
Research methods	X	X	5	1
Substance abuse	X		12	2 + Daily ⁽²⁾ + 1 dx assignment

NOTES:

1 Clinical and translational research is often part of a course or clerkship discussion, but not listed as a learning objective for the particular learning experience (e.g., lecture, small group discussion, ward team meeting); see "b" below.

2 Clerkship directors reported that many of the topics listed are discussed daily with students as faculty and residents work with them.

3 Stand-alone Genetics course

4 Stand-alone History of Medicine course

5 Stand-alone At the Intersection of Medicine and Religion course

6 Stand-alone rotation in the Medicine required clerkship

b. Describe any steps being taken to improve content coverage in any areas in which the medical school believes more exposure is needed.

Clinical/Translational Research: Two lectures have been added to the Introduction to Clinical Medicine course, one in ICM 1 and the other in ICM 2.

Medical Socioeconomics and Occupational Health Medicine: These topics will be covered in the revised Topics in Clinical Medicine course.

Patient Safety: The Office of Medical Education provided funds to send a faculty member to a national conference in May 2012 as a first step toward introducing this topic into the formal curriculum.

Humanities in Medicine: Two required courses, At the Intersection of Medicine and Religion and the History of Medicine, and one elective course, Literature and Medicine, were added to the curriculum.

Biostatistics/Epidemiology: Content has been added to the Introduction to Clinical Medicine course, and the Educational Policy Committee continues to discuss increasing time for this topic in the curriculum.

See also information for standards ED-13, ED-17, ED-17-A, ED-19, ED-20, ED-28, and ED-37.

ED-11. The curriculum of a medical educational program must include content from the biomedical sciences that supports students' mastery of the contemporary scientific knowledge, concepts, and methods fundamental to acquiring and applying science to the health of individuals and populations and to the contemporary practice of medicine.

It is expected that the curriculum will be guided by clinically-relevant biomedical content from, among others, the disciplines that have been traditionally titled anatomy, biochemistry, genetics, immunology, microbiology, pathology, pharmacology, physiology, and public health sciences.

a. Describe the process used to select the content taught in the preclinical phase of the curriculum.

Prior to the development of a set of educational objectives for the medical education in 2004, the content taught in the preclinical phase of the curriculum was selected by the course directors, typically with input from the faculty in the department offering the course. In most cases, these decisions about what would be taught were based upon the experience and expertise of the faculty and guidelines from national organizations, as they became available.

After 2004, when the school's educational objectives were developed, course directors began to link their course objectives, and thus the content of their courses, to the eight competency themes that organize the school's objectives and, more recently, to both the competency themes and individual school objectives. However, the process of selecting course content remained primarily in the hands of the faculty who taught each preclinical course.

Between 2006 and 2009, the Educational Policy Committee, with input from the Dean and the Educational Administrative Committee, and with the growing number of interdepartmental courses such as Genetics, Clinical Neurosciences, and Introduction to Clinical Medicine (ICM), began to play a role in course content selection, primarily due to closer review of outcome measures for the school's educational objectives; for example, the EPC directed the ICM course director to include more biostatistics/epidemiology in his course and developed a proposal to include humanities in medicine courses in the formal curriculum. At the same time, course directors were growing more comfortable using the school's educational objectives as a course review/development tool. During AY 2009-2010, the Office of Medical Education surveyed all course directors about their course development and review processes; all of the course directors were aware of the school's educational objectives and almost all used them to review their course objectives.

The transition from less course content selection at the course/department level to more course content selection at the EPC level continues. In 2010-2011, a new EPC advisory committee, the Curriculum Management Committee, was created to assist the EPC in identifying content areas that are unnecessarily redundant or missing from the curriculum. Also, the creation of the new Director for Preclinical Curriculum and Assessment is changing how course content is selected. For example, the Director brought second year course directors together to discuss what would be taught in the new integrated second year curriculum and she will continue to use collaboration of this sort as she works with the first year course directors to redesign the first year curriculum and schedule. Finally, the commitment to designing a hybrid curriculum and the purchase of the curriculum mapping system will also change the way course content is selected. We anticipate that by AY 2014-2015, when the hybrid curriculum is finalized and implemented, the selection of course content will have become a collaborative faculty activity that reflects the recommendations developed by the EPC advisory committees and finalized by the EPC.

b. Include data from the most recent AAMC Medical School Graduation Questionnaire (GQ) or the AAMC Canadian Graduation Questionnaire (CGQ) (for Canadian medical schools) on how well instruction in the following basic science subjects was rated by respondents in preparing them for clinical clerkship rotations:

Data Source: AAMC GQ, Class of 2011 and Class of 2012

Basic Science Disciplines	% Rating Preparation for Clinical Clerkship Rotations as Excellent or Good		National % Rating Preparation for Clinical Rotations as Excellent or Good	
	2011	2012	2011	2012
Biochemistry	66.6	74.1	58.8	57.1
Genetics	76.0	64.4	67.5	65.9
Gross Anatomy	78.3	84.4	87.9	86.9
Immunology	72.8	82.2	80.3	79.2
Microbiology	93.8	91.1	80.9	80.6
Pathology*	55.9	64.0	86.9	85.3
Pharmacology	89.9	94.5	86.9	85.3
Physiology	92.3	93.3	72.9	87.5
Behavioral Science	79.1	82.2	82.4	81.7

*Pathology Course was extensively revised in 2010-2011, which led to changes in student perceptions of the course by the class of 2013.

c. Include data from the most recent AAMC GQ or AAMC CGQ on the percent of respondents rating instruction in public health as inadequate, appropriate, and excessive.

Data Source: AAMC GQ, Class of 2011, Class of 2012

For the class of 2011, 25.4% of the respondents rated instruction in public health as inadequate (national, 22.8%); 74.6% rated this instruction appropriate (national, 74.8%); and 0.0% rated this instruction excessive (national, 2.4%). For the class of 2012, 23.5% of the respondents rated instruction in public health as inadequate (national, 21.8%); 76.5% rated this instruction appropriate (national, 75.9%); and 0.0% rated this instruction as excessive (national, 2.3%). A national search for a new Dean for the School of Public Health and Information Sciences is currently underway; once a new Dean is in place, we anticipate picking up on earlier discussions focused on collaborations between the School of Medicine and the School of Public Health and Information Sciences focused on interprofessional education and increased public health content in the medical student curriculum.

See also information for standards ED-5 and ED-10 and Required Courses and Clerkship Rotations (B. Required Course Forms).

ED-12. The curriculum of a medical education program should include laboratory or other practical opportunities for the direct application of the scientific method, accurate observation of biomedical phenomena, and critical analysis of data.

Opportunities in the curriculum could include hands-on or simulated (e.g., computer-based) exercises in which medical students either collect or use data to test and/or verify hypotheses or to address questions about biomedical principles and/or phenomena. The medical education program should be able to identify the location in the curriculum where such exercises occur, the specific intent of the exercises, and how the exercises 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.

In AY 2010-2011, the preclinical courses that included laboratory sessions were Gross Anatomy, Microanatomy, Microbiology and Neurosciences; in AY 2011-2012, the second year Pathology course added laboratory sessions in the Patient Simulation Center.

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, analysis, and interpretation of scientific data.

Students have opportunities to participate in educational sessions that involve the application of the scientific method, accurate observation of biomedical phenomena, and the collection, analysis, and interpretation of scientific data throughout the preclinical and clinical curriculum. Some examples follow:

Direct applications of the scientific method: Discussions in all of the preclinical courses about discoveries in the basic sciences that had applications to clinical medicine occur regularly. In addition, the Introduction to Clinical Medicine includes content on this topic in its Evidence Based Medicine unit; also, the first year History of Medicine course includes lectures on scientific discoveries that had implications and applications for clinical medicine, for example, “Edward Jenner and the Origins of Vaccinations” and “William Harvey and the Discovery of the Circulation of Blood.”

Accurate observation of biomedical phenomena: The laboratory experiences in the Gross Anatomy and Neurosciences courses provide students with opportunities to observe abnormalities in the human anatomy and to compare them with normal anatomy. The Pathology course also provides examples of normal vs. abnormal, which help students observe biomedical phenomena. During all of the required clinical clerkships, students have opportunities to observe how the body is impacted by disease.

Collection, analysis, and interpretation of scientific data: Almost all of the preclinical courses involve students in small groups that focus on clinical cases and the analysis and interpretation of test results. The dry lab in the second year Microbiology course also provides a hands-on experience in interpreting lab results. The Introduction to Clinical Medicine course includes a unit on evidence-based medicine that teaches students some of these skills. All of the clinical clerkships require students to make recommendations about the collection of patient data and to present the results and their interpretation of lab results.

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

ED-13. The curriculum of a medical education program must cover all organ systems, and include the important aspects of preventive, acute, chronic, continuing, rehabilitative, and end-of-life care.

Describe the means by which the medical school ensures that each aspect of clinical medicine identified above is included in required preclinical and clinical instruction.

The Educational Policy Committee (EPC) is responsible for the curriculum, including coverage of the topics referenced in ED-10. In addition, the Curriculum Management Committee, one of the committees advisory to the EPC, advises the EPC on topics that should be taught, are not taught enough, or are taught excessively in the curriculum. The EPC reviews the LCME Education standards regularly to ensure compliance with any curricular changes.

The students learn all of the organ systems in the preclinical courses and required clinical clerkships. Preclinical and clinical instruction also includes the important aspects of preventive, acute, chronic, continuing, rehabilitative, and end-of-life care. All of these topics are covered in depth in the Medicine and Family Medicine clerkships in the wards, clinics, and other ambulatory settings. In addition, the Family Medicine lectures and the Medicine web-based lecture series teach these critically important topics, as do the web-based clinical cases students are required to complete in both of these clerkships.

Organ Systems

The students learn all of the organ systems in the preclinical courses and required clinical clerkships. In AY 2011-2012, the second year course directors piloted a new schedule in which all of the courses follow the course design of the Pathology course. This design involves an introductory block followed by five blocks of study that focus on the body's organ systems; this new schedule was received positively and will continue in AY 2012-2013. In addition, the following third-year required clerkships cover all organ systems: Family Medicine, Medicine, Pediatrics, and Surgery. Also, the Neurology clerkship covers the central and peripheral nervous system; the Obstetrics and Gynecology clerkship covers the breast and female reproductive system; and Psychiatry focuses on the central nervous system.

Preventive care

Preventive care represents a large component of the Medicine and Family Medicine clerkships, through lectures, reading assignments, computer-based cases, rounding on wards and seeing patients in clinics. Examples of course or clerkship required assignments or experiences include the Community Preceptorship (Introduction to Clinical Medicine), conducting a preventive exam and turning in a completed soap note (Family Medicine), smoking cessation standardized patient skills lab (Introduction to Clinical Medicine), lectures on contraceptive practices and screening practices (Obstetrics and Gynecology), and web-based lectures on preventive care (Internal Medicine).

Acute care

Students learn about acute care through direct experiences in the clinical clerkships. In Surgery, students spend time in the Emergency Room and the Operating Room; in Obstetrics and Gynecology, students spend time in Labor and Delivery and in the Operating Room. The Medicine and Pediatrics clerkships also contain lectures, both live and recorded, and computer-based cases focused on acute care. Examples of course or clerkship required assignments or experiences include CLIPP cases (Pediatrics), lectures on acute abdomen and facial trauma (Surgery), seminar on crisis intervention (Psychiatry), and web-based lectures on heart failure, respiratory failure, and GI bleeds (Internal Medicine)

Chronic care

Chronic care is a large component of the Medicine, Psychiatry, and Family Medicine clerkships, where students spend time both in the hospital and in clinics with patients requiring chronic care. Examples of course or clerkship required assignments or experiences include half day of small groups and lecture on chronic wound care (TCM), web-based lecture on diabetes (Internal Medicine), chronic pain management computer module (ICM), CLIPP cases on eating disorders and sleep problems (Pediatrics), and seminar on psychotherapy techniques (Psychiatry).

Continuing care

Students learn about continuing care in outpatient settings. The Family Medicine clerkship is 100% outpatient. Students also spend time in outpatient settings in Surgery, Obstetrics and Gynecology, Psychiatry, and Neurology. Examples of course or clerkship required assignments or experiences include the geriatrics preceptorship and geriatrics nutrition lecture (ICM) and palliative care rotation (Internal Medicine). In AY 2009-2010, the Introduction to Clinical Medicine course introduced a longitudinal standardized patient experience so that first and second year students would have experiences treating the same cohort of “patients” over time.

Rehabilitative care

Students learn about rehabilitative care in the Geriatrics preceptorship in the Introduction to Clinical Medicine course and the Family Medicine clerkship nursing home visits. They are also exposed to rehabilitative care in the Medicine clerkship while rotating at the hospitals, for example, speech therapists, physical therapists, and occupational therapists. The new Topics in Clinical Medicine course focused on rehabilitative care in one of its half day sessions.

End-of-life-care

Students are exposed to end-of-life care during all of the rotations when they are assigned to hospitals. Specific examples of course and clerkship activities focused on end-of-life care include the one-week palliative care rotation in the Medicine clerkship and the geriatrics preceptorship in the Introduction to Clinical Medicine course. Students also visit Hospice in the ICM course and spend time during Ob/Gyn in gynecology/oncology. During the Psychiatry clerkship, students participate in consultations, primarily with med/surg patients with terminal illnesses, as well as people dealing with loss, death and dying.

See also information for standard ED-10 and required Course and Clerkship Rotation Forms.

ED-14. The curriculum of a medical education program must include clinical experience in primary care.

ED-16. The clinical experiences provided to medical students by a medical education program must utilize both outpatient and inpatient settings.

a. List each required course and clerkship rotation that provides experiences in primary care, and specify the number of hours or weeks devoted to the topic of primary care in each course or clerkship rotation.

PRE-CLINICAL CURRICULUM	PRIMARY CARE COVERAGE
Introduction to Clinical Medicine (ICM I), 1 st year	35 lectures 10 hours of standardized patient encounters focused on physical examination skills, communications, cultural competence, and nutrition 5 web-based modules on cultural competency
Introduction to Clinical Medicine (ICM II), 2 nd year	Approximately 40 lectures on physical exam skills, history and communication skills, and ethics Preceptorship with community physician Approximately 20 standardized patient encounters focused on primary care
Interdisciplinary Clinical Cases (ICC), 1 st year	16 of 20 ICC cases
Interdisciplinary Clinical Cases (ICC), 2 nd year	32 hours involve primary care content

CLINICAL CURRICULUM	PRIMARY CARE COVERAGE
Pediatrics, 3 rd year	8 weeks required clerkship
Family Medicine, 3 rd year	6 weeks required clerkship
Medicine, 3 rd year	10 weeks required clerkship
Obstetrics/Gynecology, 3 rd year	6 weeks required clerkship
Primary Care/AHEC site, 4 th year	4 weeks, ambulatory rotation
Family Medicine, Medicine, or Pediatrics, 4 th year	4 weeks, acting internship

Note: In AY 2012-2013, the third year Medicine clerkship became an 8-week clerkship and the Pediatrics clerkship became a 6-week clerkship so that the fourth year Neurology clerkship could move to the third year. These changes are enabling students to maintain important elective time in the third year (to explore non-core medical disciplines) and the Educational Policy Committee to revise the fourth year to include residency-focused tracks without decreasing student elective time.

b. List the required clerkships (in Canada, clerkship rotations) that do not include any required ambulatory experiences.

Neurology and Psychiatry do not have a required ambulatory experience but some students in both of these rotations do complete ambulatory experiences as selectives or because they are assigned to an ambulatory site for part of the rotation.

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See also information for standard ER-6 in Section V: Educational Resources and Required Courses and Clerkship Rotations, Part A, item (A.).

ED-15. The curriculum of a medical education program must prepare students to enter any field of graduate medical education and include content and clinical experiences related to each phase of

the human life cycle that will prepare students to recognize wellness, determinants of health, and opportunities for health promotion; recognize and interpret symptoms and signs of disease; develop differential diagnoses and treatment plans; and assist patients in addressing health-related issues involving all organ systems.

It is expected that the curriculum will be guided by the contemporary content from and the clinical experiences associated with, among others, the disciplines and related subspecialties that have traditionally been titled family medicine, internal medicine, obstetrics and gynecology, pediatrics, preventive medicine, psychiatry, and surgery.

a. Describe how the curriculum prepares students to recognize wellness, determinants of health, and opportunities for health promotion. Include examples of where in the curriculum these topics are addressed and how student achievement is assessed.

Students learn about wellness, determinants of health and opportunities for health promotion throughout the curriculum. During the preclinical years, the Introduction to Clinical Medicine (ICM) course teaches students how to recognize wellness as part of instruction in the complete physical exam and the focused physical exam. Students are taught to include questions related to tobacco use, substance abuse, and sexual history as part of these examinations.

Students are assessed on these skills during the Clinical Skills Examination 1 (mid first-year) and on a H&FP exam they must perform for a physician (year 2), both in the ICM course. The ICM course also has lectures on tobacco cessation counseling, which are assessed in the Clinical Skills Examination 3 (June of third year) as part of the school's participation in the MSQuit study, an 11-school NCI-funded study that is developing a curriculum for tobacco cessation counseling for medical students.

During the clinical years, the clinical clerkships prepare students to recognize wellness, determinants of health and opportunities for health promotion, particularly in the Family Medicine, Medicine, Obstetrics and Gynecology, and Pediatrics required clerkships. Much of this learning takes place at the bedside or in ambulatory settings, during Grand Rounds, or through face-to-face or web-based lectures. Specific examples of activities focused on these topics include computer-based nutrition cases, a health literacy reflective writing, and community project (Family Medicine), small group cases (Obstetrics and Gynecology), and a reflective patient encounter and web-based SIMPLE cases (Medicine). All of these learning experiences carry weight toward the final clerkship grade. In addition, students are assessed at the clerkship level using a uniform clinical performance evaluation form (Appendix ED-15.a*1) and at the program level in the Clinical Skills Examination 3.

b. Provide data in the following table from the most recent AAMC GQ or AAMC CGQ on respondents' perceptions of the adequacy of instruction in the following areas:

Topic	Percent of respondents indicating that instruction was:					
	Inadequate		Appropriate		Excessive	
	2011	2012	2011	2012	2011	2012
Diagnosis of disease	3.1	7.4	96.9	91.4	0.0	1.2
Management of disease	9.4	7.4	89.8	91.4	0.8	1.2
Health maintenance	7.8	7.5	90.6	90.0	1.6	2.5
Disease prevention	6.4	6.3	93.6	93.8	0.0	0.0
Health determinants	17.5	17.5	82.5	82.5	0.0	0.0

* Our “inadequate” percentage for each of these topics is lower than the national percentage.

c. Describe how experiences in family medicine, internal medicine, obstetrics and gynecology, pediatrics, preventive medicine, psychiatry, and surgery are provided. Are these experiences organized as separate clerkships/clerkship rotations, as one or more integrated (longitudinal) clerkship rotations, or in some other way?

Family Medicine, Internal Medicine, Obstetrics and Gynecology, Pediatrics, Psychiatry, and Surgery are organized and delivered as stand-alone required clinical rotations. In fourth year, students complete a required rotation in Neurology, a primary care rotation at an ambulatory or AHEC site, a selective in Surgery or Perioperative Medicine, and an acting internship in Family Medicine, Medicine, or Pediatrics. Preventive medicine instruction is integrated in all of the clerkships, but especially emphasized in Family Medicine, Medicine, Obstetrics and Gynecology, Pediatrics, and Psychiatry.

See also information for standards ED-5 and ED-10 and Required Clerkship Rotation Forms.

ED-17. Educational opportunities must be available in a medical education program in multidisciplinary content areas (e.g., emergency medicine, geriatrics) and in the disciplines that support general medical practice (e.g., diagnostic imaging, clinical pathology).

Describe where in the curriculum the following subject areas are covered and specify the amount of time devoted to each area:

Students learn about emergency medicine, geriatrics, diagnostic imaging/radiology, and clinical pathology in both the preclinical years and the clinical clerkship years. Examples of specific learning experiences are described below.

a. Emergency medicine: During the preclinical years, students complete an 8-hour Emergency Medicine preceptorship in the first-year Introduction to Clinical Medicine course. Standardized patients are also used to teach clinical emergencies: chest pain (15 minutes), febrile infant with mental status change phone case (15 minutes), motor vehicle accident (15 minutes). Students also participate in a clinical emergency session that takes place in the Simulation Center as part of the ICC curriculum (2 hours). During the clinical years, they are exposed to emergency medicine in the required clerkships, particularly Psychiatry (two call shifts in Emergency Psychiatric Services; also exposed to the interchange of patients between the Emergency Department and Emergency Medicine), Surgery, Obstetrics and Gynecology (emergency surgery or delivery), and Pediatrics (lectures on acute poisonings (1 hr.), infants that present with fever (1 hr), CLIPP computer cases of a) patient with acute seizure presentation patient and b) patient with altered mental status (1 hr)). Standardized patients are also used to teach clinical emergencies: Schizophrenia (15 minutes), Anaphylaxis (15 minutes), Multiple Sclerosis with extreme vertigo (30 minutes), Brain tumor (30 minutes), and Subarachnoid hemorrhage (30 minutes).

b. Geriatrics: During the preclinical years, students complete half-day preceptorships in Geriatrics and at Hospice in the Introduction to Medicine course (ICM). ICM also uses standardized patients to teach taking a geriatrics history (30 minutes), mental status exam (30 minutes), and advance directives (30 minutes) and includes lectures on “Health Care for Older Adults” (3 hours). Students also complete a web-based self-study module on geriatric nutrition. The Pharmacology course includes one hour on “special aspects of perinatal, pediatric, and geriatric pharmacology.” During the clinical years, students are exposed to geriatric patients in all of the required clerkships with the exception of Pediatrics. Students are most likely to work with elderly patients in the Medicine, Surgery, and Psychiatry clerkships, where students rotate at the VA. Also, students work directly with geriatric patients during the one week Palliative Care rotation in the Medicine clerkship and must complete a “Geriatric Syndrome Training Exercise” in the Family Medicine clerkship. The Family Medicine clerkship also has web-based lectures on “physiology of aging” and “polypharmacy.” The Psychiatry clerkship includes a one-hour lecture on “dementia.”

c. Diagnostic imaging/Radiology: During the preclinical years, the students learn about diagnostic imaging/radiology in the Gross Anatomy course in several ways. First, new flat screen TV monitors that have been mounted on the walls of the gross lab are used to project images related to the body region being dissected (these images are also posted to the course website); students also complete a self study module on diagnostic imaging, which is tested on course examinations. Finally, Gross Anatomy includes 4 one-hour clinical correlation lectures by radiologists. In the Introduction to Clinical Medicine 2 course, one unit on “Clinical, Laboratory Radiographic Interpretation Skills” is included; students also learn about diagnostic imaging/radiology during the Interdisciplinary Clinical Cases, where images are often part of the information provided to

students about the case being discussed; two ICC cases focus on this topic, one in which the students consult with a radiologist to discuss the clinical relevance of the anatomy of the thoracic cavity as it relates to a chest x-ray, and a second in which the ICC faculty facilitator reviews how to read a chest x-ray and points out the abnormalities typically seen on chest films in asthmatic patients.

During the clinical years, diagnostic imaging/radiology is covered in most of the clerkships at the bedside where students often observe physicians who are reading and discussing x-rays. In addition, the Neurology clerkship has a one-hour lecture on the basics of head CT, which is tied to a standardized patient encounter where students practice a lumbar puncture on simulators (students are presented a clinical scenario and a head CT, which is incorporated to solving the case. In the Medicine clerkship, students attend a weekly 1.5 hour conference taught by the chief residents. Interpretation of chest x-rays is one of the three topics covered (the others are EKG and ABG interpretation); in addition, radiographs are a routine part of Noon Report presentations (approximately 15 minutes of a one-hour conferences held three times weekly) and one Noon Report is solely devoted to reviewing radiographs with a radiologist. Surgery covers x-rays in lectures, and students are expected to be able to read x-rays as part of their patient care; in addition, students complete 24 hours of Trauma Call, where they are exposed to this topic. Obstetrics/Gynecology also teaches this topic to students with a CD and when students rotate through the ultrasound clinic.

d. Clinical pathology: In the preclinical years, clinical pathology is taught primarily in the second year Pathology course during lectures, when appropriate, but consistently in the weekly TBL sessions that are led by a clinician with assistance from a pathologist. The Pharmacology course also teaches clinical pathology; it includes three lecture hours on clinical toxicology cases. Some of the ICC cases, which reinforce basic science concepts using clinical cases, also teach clinical pathology, for example, a case on the mechanism of action of at least two treatments for hepatic encephalopathy and one on the pathological and physiological causes of hypo- and hyperphosphatemia. During the clinical years, students learn about clinical pathology primarily through informal discussions on wards or during Grand Rounds. In the Medicine clerkship, students may have the opportunity to go to the lab with a team to review a slide; also, when the students are rotating at University Hospital, students attend one Noon Report session devoted to Autopsy Conference, which is a combined effort between the Departments of Medicine and Pathology.

ED-17-A. The curriculum of a medical education program must introduce medical students to the basic scientific and ethical principles of clinical and translational research; including the ways in which such research is conducted, evaluated, explained to patients, and applied to patient care.

The faculty of the medical education program should develop explicit learning objectives (knowledge, skills, behaviors, and attitudes) to meet the requirements of this standard. 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 the medical education program 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 clerkship rotations (e.g., discussing the application of new knowledge from clinical research in bedside teaching activities, offering mentored projects, or conducting journal club sessions in which medical students explore the development or application of clinical and translational research)

a. List all required courses and clerkship rotations that include formal learning objectives that address basic principles of clinical and translational research.

The Introduction to Clinical Medicine (ICM) course contains learning objectives that address basic principles of clinical and translational research. Some of the objectives detailed in the AAMC Medical School Objectives project *Contemporary Issues in Medicine: Basic Science and Clinical Research* publication are taught in ICM. For example, the ICM course objectives in the Biostatistics and Epidemiology and the Evidence-Based Medicine Skills units (ICM 1) and the Clinical Ethics unit (ICM 2) align with some of the objectives on the AAMC Basic Science and Clinical Science list of objectives, for example, the “use a formal approach to evaluate and analyze randomized control trials and apply the results to patient care” objective (ICM) links to the medical school’s “the ability to evaluate independently the accuracy and significance of the information one obtains from any source, but especially studies reported or summarized in the medical literature” objective (Information Management and Critical Thinking theme), which links to the AAMC’s “possession of a working knowledge of seminal clinical research findings and their patient care applications” objective (Basic Science and Clinical Research Knowledge objectives).

Students also have opportunities to learn about the basic principles of clinical and translational research through the Summer Research Scholars Program (SRSP) and the Distinction in Research program (DIR) (Appendix ED-17-A.a*1). The SRSP is run through the Office of Research and provides an opportunity for approximately 50 rising second year students to conduct research and receive a stipend during a 10-week period between first and second year. In addition to the mentored research experience, SRSP students attend weekly enrichment sessions that teach them about the basic principles of clinical and translational research. The Distinction in Research program involves approximately 25 students in each class (currently the classes of 2013, 2014, and 2015). The DIR students attend DIR “meet the researcher” sessions during the second year, where they learn about research in general and translational research specifically (Appendix ED-17-A.a*2). Then, during third and fourth years, they work with a mentor, who supervises their research participation.

b. For each course and clerkship rotation listed, briefly summarize how student achievement of those objectives is assessed.

The ICM objectives for the basic principles of clinical and translational research are assessed through quizzes (epidemiology), computer-based assignments (clinical ethics; evidence-based

medicine), and small group participation (humanism, ethics, and professionalism). Students who participate in the Summer Research Scholars Program are not formally assessed on mastery of the basic principles of clinical and translational research, although those SRSP students seeking to be part of the Distinction in Research Track are required to submit an evaluation form completed and signed by their mentor (Appendix ED-17-A.b*1). This evaluation form includes questions about various research skills, but does not specifically evaluate mastery of the basic principles of clinical and translational research.

c. Briefly describe any required courses or clerkship rotations in which students are routinely exposed to, or have the opportunity to apply basic principles of, clinical and translational research, even if there are no formal objectives for such learning.

All students are regularly exposed to the basic principles of clinical and translational research in the Interdisciplinary Clinical Cases (ICC) sessions, which integrate content from the basic sciences, clinical cases, and the medical literature. This topic is also reinforced at Research!Louisville, an annual event that students attend (they are excused from class) so that they can meet faculty, classmate, graduate student and resident researchers and attend presentations given by nationally recognized researchers. In addition, students are exposed to these principles during all of the required clinical clerkships during discussions at patient presentations, Grand Rounds and small group learning activities.

See also information for standard ED-10.

ED-18. The curriculum of a medical education program must include elective opportunities to supplement required courses and clerkship rotations.

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

a. Indicate the number of weeks of elective time that are expected of all medical students in each year of the curriculum:

Year	Total Weeks of Elective Time*
1	0
2	2
3	0-4
4	14

* NOTES: Students must complete 2 credits of electives at any time during the preclinical years (M1 and M2); the length of preclinical electives varies since some electives are clinical (Free Clinic, for example) while others are primarily lecture-based (Law and Medicine, for example).

Until AY 2013-2014, students were required to complete 14 weeks of electives during the fourth year, with the exception of the Career Explorations elective, which could be taken in second or third years. Effective AY 2012-2013, students may take up to 4 weeks of Career Exploration/Electives in third year.s

b. Indicate the maximum number of weeks that students may spend taking electives at another institution that is not part of the medical school's health system or affiliated with the medical school.

NA*

* NOTE: The medical school does not have a formal policy on the maximum number of weeks that students may spend taking electives at an institution that is not part of the medical school's health system or affiliated with the medical school.

c. Provide the average number of weeks that students in the most recent graduating class spent taking electives at another institution.

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d. Describe any policies or practices that encourage students to use electives to pursue interests outside of their chosen specialty.

We do not have a policy that focuses on students taking electives outside of their chosen specialty.

e. Indicate whether the medical school has a policy that specifies a maximum number of electives (or elective weeks) that students may take in the same specialty area, either at the medical school or at another institution. If a policy is in place, describe the policy and the means by which it is enforced.

The medical school does not have a policy that specifies a maximum number of electives (or elective weeks) that students may take in the same specialty area. However, we do not believe that

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students take excessively high numbers of weeks in the same specialty area. A review of all students' schedules for the class of 2011 revealed the following patterns: 65 students took two electives in their chosen medical field; 35 students took three; 12 students took 4; and 1 student took 5. Most of these were students who took two electives through the Department of Medicine, for example, 1 EKG elective and 1 ICU elective, or two different areas of medicine. Regarding away rotations, fewer than 10 students took more than one away rotation in the same discipline.

ED-19. The curriculum of a medical education program must include specific instruction in communication skills as they relate to physician responsibilities, including communication with patients and their families, colleagues, and other health professionals.

Describe where in the curriculum (i.e., specific course[s] or clerkship rotation[s]) students gain experience in the following areas. Specify the settings in which instruction occurs (e.g., classroom, clinical setting, simulated setting) and the format(s) used (e.g., lecture, small group, standardized patient, role play).

a. Communicating with patients and patients' families

Course/Clerkship	Setting	Format(s) Used
Introduction to Clinical Medicine 1&2	Standardized Patient Clinic	Standardized Patient + Feedback
Interdisciplinary Clinical Cases 1 & 2	Small Group Classrooms	Role Play + feedback Small group case-based discussions
Clinical Clerkships (Pediatrics, Family Medicine, Medicine, Surgery, Neurology, Psychiatry, Obstetrics/Gynecology)	Standardized Patient Clinic Hospital/hospital wards; clinics; private practice offices	Standardized Patient, with or without feedback Feedback during rounds, patient presentations

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

Course/Clerkship	Setting	Format(s) Used
Clinical Clerkships (Pediatrics, Family Medicine, Surgery, Neurology, Psychiatry, Obstetrics/Gynecology, Medicine)	Hospital; clinics; private practice offices	Formative Feedback from patients; attending; residents

c. Communicating with non-physician health professionals and members of the health care team

Course/Clerkship	Setting	Format(s) Used
Interdisciplinary Clinical Cases 1 & 2	Small Group Classrooms	Facilitator Feedback
Palliative Care Rotation (one-week)	Palliative Care Units	Team Meetings
Clinical Clerkships	Hospital; clinics; private practice offices	Clinical Setting: Patient care experiences that involve other health care professionals

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

ED-20. The curriculum of a medical education program must prepare medical students for their role in addressing the medical consequences of common societal problems (e.g., provide instruction in the diagnosis, prevention, appropriate reporting, and treatment of violence and abuse).

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

Students learn about the medical consequences of societal problems throughout their four years in medical school. This learning begins in the ICM course where students learn about problems like substance abuse and addiction, obesity, homelessness and the adverse effects of smoking in various settings, for example, lectures, independent learning modules, standardized patient encounters and preceptorships. Learning experiences include half-day preceptorships at The Healing Place, a clinic for HIV/AIDS patients, and the Center for Women & Families, which cares for women and children who have been abused; units on Clinical Nutrition and Health Care for Older Adults; Pain Management Day; and smoking cessation and diet and exercise counseling skills labs with standardized patients. The Interdisciplinary Clinical Cases also teach students about the medical consequences of societal problems.

During the clinical years, students learn about the medical consequences of common societal problems in all of the required clinical clerkships—on the wards, in ambulatory settings, during their AHEC rotations, and in private practice settings. All of the students rotate through University Hospital, where many of the patients are individuals suffering not only from physical conditions but social and economic ones as well, for example, homelessness, substance abuse, and alcoholism. Individual clerkships also prepare medical students for their role in addressing the medical consequences of common societal problems. Students learn about domestic violence diagnosis and treatment in Psychiatry clerkship seminars; students also learn about domestic violence in the Obstetrics/Gynecology clerkship during core conferences and case-based sessions. Students learn about child abuse in the Pediatrics clerkship. Substance abuse, impulse control, gambling addiction, management of violent and disruptive behaviors, and eating disorders are also covered during Psychiatry seminars.

b. List the required courses and clerkship rotations in which the following aspects of domestic violence and abuse are covered (see Glossary at the front of this section for definitions).

Content Area	Required Course(s) in which Topic is Addressed	Required Clerkship Rotation(s) in which Topic is Addressed
Diagnosis	Introduction to Clinical Medicine	Obstetrics/Gynecology; Psychiatry; Medicine; Pediatrics; Family Medicine
Prevention	Introduction to Clinical Medicine	Obstetrics/Gynecology; Psychiatry; Medicine; Pediatrics; Family Medicine
Reporting	Introduction to Clinical Medicine	Obstetrics/Gynecology; Psychiatry; Medicine; Pediatrics; Family Medicine
Treatment	Introduction to Clinical Medicine	Obstetrics/Gynecology; Psychiatry; Medicine; Pediatrics; Family Medicine

See also information for standard ED-10.

ED-21. The faculty and medical students of a medical education program 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.

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

a. List the courses and clerkship rotations in which students learn about issues related to cultural competence in health care and describe the specific elements related to cultural competence that are covered in each. Note whether the instruction occurs through formal teaching, informal exposure in the clinical setting, or both.

Students learn about issues related to cultural competence in health care through formal instruction in a variety of learning experiences and settings throughout the curriculum. Since the student body is also diverse, students also learn about these issues informally through exposure and interactions with one another. In addition, because the patient population students work with is culturally diverse, students also learn about issues related to cultural competence on a daily basis through both formal instruction and informal interactions with patients and discussions with attendings and other health care professionals on the wards and in the clinics throughout years three and four.

Introduction to Clinical Medicine: In the ICM 1 course, an entire unit is focused on "culturally appropriate care." The half day preceptor ship experiences in ICM 2 at the Center for Women & Families and The Healing Place also provide opportunities to observe culturally appropriate care.

Cultural Competency Symposium: Since AY 2007-2008, first year students are required to attend a half day symposium that includes sessions with local and regional speakers and breakout sessions on topics that engage students in issues related to cultural competence, for example, caring for LGBT patients and caring for patients from rural backgrounds. The purpose of the symposium is to educate and provide awareness to future healthcare professionals regarding cultural competence and cross-cultural competence. Note: Since AY 2009-2010, the Cultural Competency symposium has brought together students from the medical and dental schools and become a student-planned program ([see Appendices ED-21.a*1 and ED-21.a*2](#) for the Cultural Competency Symposium program and Executive Summary/Evaluation).

At the Intersection of Medicine and Religion: This required first-year course consists of 8 hours of panel discussions and small group learning and is part of the Humanities in Medicine curriculum. The Dean served as course director until AY 2012-13? Each of the four two-hour sessions focuses on a clinically related case that has religious issues or implications. The panel members, drawn from clergy, faculty, and medical ethicists discuss the case and then open it up to students.

Clerkship Rotations: Students learn about cultural competence primarily through exposure in the clinical setting, where students are exposed to patients of diverse cultures and backgrounds. Louisville is a large metropolitan area with a patient population that includes individuals from diverse religious, cultural, and ethnic backgrounds. Although there are no formal lectures devoted entirely to cultural competence, students have hands-on opportunities to observe and participate in patient care for a culturally diverse population, for example, by participating in a patient interview

that relies on the assistance of an interpreter. Some of the computer-based cases that students must complete in Surgery, Family Medicine, Medicine, and Pediatrics teach cultural competence. Students also complete an AHEC rotation in both third and fourth years. This rotation provides students with clinical and personal experiences with patients from underserved and underrepresented Kentuckians, particularly in rural areas of the state.

b. Indicate the means by which students' acquisition of the knowledge, skills, behaviors, and attitudes related to cultural competence is assessed. Provide evidence that educational program objectives and course or clerkship objectives addressing cultural competence are being met.

Mastery of knowledge, skills, behaviors, and attitudes related to cultural competence detailed in course and clerkship objectives and the school's educational objectives document is assessed in both the preclinical and clinical years.

In the preclinical years, student knowledge about cultural competence is assessed using the following tools: high stakes examinations (ICM; At the Intersection of Medicine and Religion; USMLE Step 1); and web-based quizzes (ICM). The skills, behaviors and attitudes related to cultural competence are assessed in the Clinical Skills Examination 2.

In the clinical years, student knowledge about cultural competence is assessed using the following tools: high stakes examinations (USMLE Step 2 CK; NBME subject examinations; computer-based case assignments (Family Medicine, Medicine, Pediatrics, Surgery). The skills, behaviors and attitudes related to cultural competence are assessed using the following tools: USMLE Step 2 CS; Clinical Skills Examination 3; and the Student Clinical Performance Evaluation form used in all of the required clerkships.

The EPC reviews the results of the Clinical Skills Examination 3 to ensure that the school's educational objectives related to cultural competence skills, behaviors, and attitudes are mastered by students. Each CSE 3 case has objectives that are linked to the school's educational objectives (Appendix ED-1.d*5).

See also information for standard ED-10.

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

The objectives for instruction in the medical education program should include medical student understanding of demographic influences on health care quality and effectiveness (e.g., racial and ethnic disparities in the diagnosis and treatment of diseases). The objectives should also address the need for self-awareness among medical 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 for all students) students receive instruction addressing the following topics:

i. Demographic influences on health care quality and effectiveness (including disparities in health care delivery)

Formal instruction on the demographic influences on health care quality and effectiveness (including disparities in health care delivery) during the preclinical years occurs primarily in the Introduction to Clinical Medicine course. One of the skills listed in the course mission is “assessing the whole patient,” including cultural, social, demographic, behavioral, nutritional and other dimensions. Students learn this skill in standardized patient encounters, for example, in the units on “health care for older adults” and “culturally appropriate care;” in preceptorships, for example, the time spent at the Center for Women and Families; and during lectures and independent learning activities, for example, the units on “Health Care Financing and Managed Care.” The Interdisciplinary Clinical Cases sessions also include discussions about this topic, but student mastery of objectives is not formally evaluated, as it is in ICM.

During the clinical years, demographic influences on health care quality and effectiveness are taught informally, when students are at clinical sites and discuss patients with faculty, residents, and attending—during rounds and at the bedside, for example. Students also learn about this theme during lectures and seminars and at Grand Rounds. Specifically, students receive training on the disparities of health care delivery, especially for African Americans, teenagers, and LGBT populations, on the Obstetrics/Gynecology clerkship. This topic is also addressed during the community psychiatry, psychiatric epidemiology, and in-patient components of the Psychiatry clerkship, where students learn the risk factors associated with psychiatric disorders and work with social workers to ensure appropriate referrals/placements.

ii. Students’ self-awareness of their own biases and those of their peers and teachers/supervisors

During the preclinical years, the Cultural Competency Symposium, a required first-year student experience, has as one of its objectives to increase student “awareness” about cultural differences; as a result of this increased awareness, students are better able to understand their own cultural differences and biases. Also, some of the ICCs emphasize student self-reflection and awareness of their own cultural biases. The At the Intersection of Medicine and Religion course, which focuses on clinical scenarios that have spirituality or religion implications, includes two small group sessions where students discuss these scenarios in terms of how their own religious beliefs could or should (or should not) impact patient care. Finally, the peer evaluation of professionalism questionnaire that students complete in first and second years provides an opportunity for students to give feedback to one another about perceived biases, if appropriate.

During the clinical years, students have opportunities to develop further self-awareness of their own biases when faculty provide them with formative feedback any time they demonstrate behavior that suggests a lack of self-awareness of cultural bias. The mid-clerkship formative feedback meeting also provides an opportunity for a faculty member to offer this kind of feedback.

b. Provide evidence that educational program objectives or course and clerkship rotation-specific objectives related to gender and cultural biases in health care are being met.

In the preclinical years, course objectives on gender and cultural biases in health care are taught primarily in ICM, whose mission, in part, is to teach students to assess “the whole patient,” including cultural, social, demographic, behavioral, nutritional and other dimensions.” The “culturally appropriate care,” “health care for older adults,” and the “advanced history-taking and complex communication skills lab” units all include learning experiences related to this topic; student mastery of objectives related to gender and cultural biases in health care is assessed on computer-based modules that students must complete for the “Culture in Patient Care” unit. Students also receive formative feedback on gender and cultural biases during standardized patient encounters in ICM, for example, during the “sexual history” SP session.

Educational program objectives are taught at the Cultural Competence Symposium, a required half-day experience for first year students, although student mastery of objectives is assessed only via a survey that probes about student satisfaction with the symposium.

In the clinical years, clerkship specific objectives on gender and cultural biases in health care are taught primarily indirectly at the bedside, during case based discussions, and in the computer-based cases that student complete independently. Mastery of clerkship objectives on this topic are assessed using the Student Clinical Performance Evaluation form, which is completed by attendings who work with the students and counts toward the clerkship final grade; the professionalism section of the evaluation includes “caring, compassion, and communication” and “respect” behaviors, both of which include descriptors related to gender and cultural components of the physician-patient encounter. The Clinical Skills Examination 3, a program requirement, assesses student mastery of the school’s educational objectives related to gender and cultural biases. The SP checklist used also includes an item on “respect.”

Also see information for standard ED-10.

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

The medical education program should ensure that medical 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, assessed, and reinforced through formal instructional efforts.

In medical student-patient interactions, there should be a means for identifying possible breaches of ethics in patient care, either through faculty or resident observation of the encounter, patient reporting, or some other appropriate method.

The phrase "scrupulous ethical principles" implies characteristics that include honesty, integrity, maintenance of confidentiality, and respect for patients, patients' families, other students, and other health professionals. The program's educational objectives may identify additional dimensions of ethical behavior to be exhibited in patient care settings.

a. Identify each course and clinical clerkship rotation for which there is an explicit educational objective that includes the expectation that students gain an understanding of ethical issues and human values.

Preclinical Courses

ICM 1 & 2: The Introduction to Clinical Medicine course includes course objectives on ethical issues and human values. In the ICM 1 course, these objectives are outlined under the "Professionalism and Humanism" area, for example, "describe the basic issues and laws regarding professionalism licensure, certification, and review" and "describe issues related to academic and professional integrity and performance, and how to address situations when integrity is compromised." In the ICM 2 course, the objectives related to ethical issues and human values are detailed under the heading of "Ethics and Health Care Financing," for example, "utilize a rational approach to evaluate clinical ethics problems including right to refuse treatment, end-of-life care, physician-assisted suicide, genetic testing, and reproductive health issues" and "know the ethical and moral basis for medical practice." In ICM 1, the course objectives on ethical issues and human values are covered primarily in one six-week block in the spring semester focused on "Professionalism and Ethics"; the ICM 2 objectives on this topic are taught primarily in a unit on "Ethics" at the end of the fall semester.

Gross Anatomy: The syllabus lists the following in the general course goals section: 1) appreciate the gift given by the persons who bequeathed their bodies for your study and the families who support their decision to do this; 2) respect the dignity and value both before and after their deaths of the persons who bequeathed their bodies; and 3) demonstrate compassion for the families of the persons who bequeathed their bodies and respect their privacy.

ICCs: The syllabus has "multidisciplinary learning/legal issues/ethics" as one of five course themes.

Genetics: The syllabus lists the following objectives for the lecture on ethical issues in genetics: Following completion of the lecture, you will know the following: 1) challenges primary care physicians face in providing genetic counseling; 2) challenges physicians face in keeping information in a patient's permanent record; and 3) physician's responsibility in informing patients of test results.

Clinical Clerkships

All of the required clinical clerkship syllabi or clerkship documents include goals or objectives that link to the school's "knowledge of the theories and principles that govern ethical decision making" educational objective (Professionalism theme).

b. Provide examples of any formative or summative assessment instruments used to assess the acquisition or demonstration of medical students' ethical behavior in the preclinical and/or clinical curriculum. How and from whom is information about student ethical behavior collected?

Information about student ethical behavior is collected formally and informally during the preclinical and clinical years. During the preclinical years, formal formative peer evaluations of professionalism are completed electronically and anonymously by students at the end of the Gross Anatomy course (first year, fall semester) and twice in the Interdisciplinary Clinical Cases course (first year, spring semester; second year, spring semester) (Appendix ED-23.b*1). These evaluations are reviewed by the Interim Associate Dean for Student Affairs before being distributed to all of the students by their respective Advisory Deans. In addition, unethical behavior on the part of a student may be reported directly to a course director, the Associate Dean for Medical Education, or the Interim Associate Dean for Student Affairs. Each preclinical course has an elected "course representative," who serves as the point person for the students and the course and may also make such a referral. Finally, the HEART group (Humanistic, Ethical, and Relationship-Centered Care Team or Humanism in Medicine group), an ad-hoc group composed of faculty, students, staff, and administrators, has discussed working together to propose an Honor and Professional Council that would be run by students and serve as an early warning system to provide guidance to students whose behavior may reflect unethical conduct.

During the clinical years, all students are evaluated on ethical behavior by residents and attendings using the Uniform Clinical Clerkship Evaluation form, which lists "honor and integrity" as one of the behaviors in the Professionalism section (Appendix ED-15.a*1). In addition, students in all required clinical clerkship rotations must participate in a mid-clerkship formative feedback session; any concerns about unethical behavior would be addressed during this session. Finally, student involvement in clerkship leadership is facilitated through the use of a "track captain" system in which one student in each of the nine tracks (sequenced schedule for when each clerkship is taken) serves as the point person for all students in one track and represents them at regular meetings with the Interim Associate Dean for Student Affairs and the Associate Dean for Medical Education. At these meetings, any single track captain has the opportunity to report to or consult with the Associate Deans about any student perceived as displaying unethical behavior.

c. Describe the methods used to identify and remediate any breaches of ethics in patient care made by medical students.

Breaches of ethics in patient care by medical students occur very rarely. Such breaches would be identified by an attending or resident and reported immediately to the clerkship director for action. During informal interviews with each clerkship director conducted by the Associate Dean for Medical Education during fall 2011, only one clerkship director reported having had to respond to a complaint about a breach of ethics on the part of a medical student. In that situation, a student's attending reported seeing a student having lunch in the hospital cafeteria with a patient; he reported the student to the clerkship director, who met with the student to discuss his behavior. The clerkship director felt that the meeting helped the student understand why his behavior was unethical and that further remediation was not needed. In addition, a student breach in ethical behavior could be reported by a fellow student through the track captain system (refer to response

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to ED-23.b). Finally, breaches of ethics in patient care made by medical students could be reported by an attending or resident on the end-of-clerkship written evaluation of clinical performance.

See also information for standards ED-10, MS-31-A, and MS-34.

ED-24. At an institution offering a medical education program, residents who supervise or teach medical students and 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 rotation and be prepared for their roles in teaching and assessment.

The minimum expectations for achieving compliance with this standard are that: (a) residents and other instructors who do not hold faculty ranks (e.g., graduate students and postdoctoral fellows) receive a copy of the course or clerkship rotation objectives and clear guidance from the course or clerkship rotation director about their roles in teaching and assessing medical students and (b) the institution and/or its relevant departments provide resources (e.g., workshops, resource materials) to enhance the teaching and assessment skills of residents and other non-faculty instructors. There should be central monitoring of the level of residents' and other instructors' participation in activities to enhance their teaching and assessment skills.

There should be formal evaluation of the teaching and assessment skills of residents and other non-faculty instructors, with opportunities provided for remediation if their performance is inadequate. Evaluation methods could include direct observation by faculty, feedback from medical students through course and clerkship rotation evaluations or focus groups, or any other suitable method.

a. Provide information in the following table for each required course or clerkship rotation where residents, senior medical students, graduate students, or postdoctoral fellows teach, assess, or supervise medical students.

Course or Clerkship/Clerkship Rotation	Teaching/Supervision Provided by:	Describe How Objectives are Provided (e.g., orientation sessions, e-mail, syllabus)
Family Medicine	residents	Distributed at orientation; posted to clerkship Website
Medicine	residents; fellows	Distributed at orientation; posted to clerkship Website
Neurology	residents	Distributed at orientation; in syllabus; posted to clerkship website
Obstetrics/Gynecology	residents; fellows	Distributed at orientation; in syllabus, which is distributed in paper form and posted to clerkship website
Pediatrics	residents	Discussed at orientation for residents delivered by clerkship director; emailed to residents
Psychiatry	residents	Emailed to residents; discussed at outpatient clinical orientation
Surgery	residents; fellows	Emailed; posted to clerkship website

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

NOTE: Graduate students, postdoctoral fellows, or residents who teach, assess or supervise medical students are welcome to attend any of the SOM faculty development programs described in database sections FA-4 and FA-11 (Section IV: Faculty). We do not track their attendance at these programs.

The ACGME's Common Program Requirements, under the core competency of Practice-based Learning and Improvement, outline resident requirements for participating in medical student education. This requirement states that "residents 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-evaluation and life-long learning." Residents are expected to develop skills and habits to be able to achieve goals that include "incorporate formative evaluation feedback into daily practice" and "participate in the education of patients, families, students, residents and other health professionals."

In order to improve medical student education in the required clinical clerkships, an Assistant Dean for Graduate Medical Education position was created and filled in 2006. The Assistant Dean, who has a Master's Degree in Education, was charged with improving resident teaching and evaluation skills. In February 2007, the GME Office initiated an annual Residents as Teachers (RATs) workshop series. The RATs workshop is a required program for all residents in their first year of residency and consists of a full day of activities. Between 20 and 25 first year interns are assigned to one of the five RATs workshops; residents from different specialties are dispersed equally among the workshops to ensure a diverse group in which residents can observe how residents from other specialties interact with students and learn teaching skills from their peers in other specialties. GME staff track attendance and report back to departments and to the Associate Dean for Medical Education to ensure that all interns complete this learning experience.

The RATs curriculum is grounded on the BEST model (UC Irvine School of Medicine) but has been modified and improved each year since 2007 to respond to student and faculty evaluations and changes in relevant content (Appendix ED-24.b*1). The following topics are covered: micro-skills of teaching, orientation to rotation/clerkships, giving feedback, teaching procedures, bedside teaching, and giving lectures. The curriculum continues to evolve. For example, because professionalism is an emerging theme in medical education, in 2012 RATs will include a brief module on how residents can help mentor students toward more responsible behavior on online social networking sites. All residency programs support this initiative. Program Directors discuss this workshop with residency applicants during yearly resident recruitment.

In addition, some of the clinical departments conduct their own faculty development programs for residents and fellows. For example, the Department of Medicine takes all of its interns on a two-day retreat at the end of their intern year. One of the retreat topics is "effective teaching in a clinical setting," which emphasizes the importance of their role as teachers and reviews some very specific, easy to remember and effective teaching techniques in the clinical setting (e.g., extending the case, priming the next task, role-modeling). At the end of the PGY-2 year, a similar but smaller half-day retreat is held and a truncated version of the teaching session is included. Resident teaching is evaluated at the clerkship (see sample resident evaluation instruments in Appendix ED-24.b*2) and EPC levels.

c. Describe any institution-level policies that require participation of residents and others (e.g., graduate students) in orientation or faculty development sessions related to medical student teaching or assessment.

1. The RATs workshops (refer to response for ED-24-b) are a GME sponsored event and all first-year residents are required to attend. Over the past five years there has been 100% participation. The success of these workshops has led to required workshops in Scholarly Activities and the Business of Medicine for residents, also sponsored by GME.
2. The Education Policy Committee (EPC) requires all clerkships to develop learner centered objectives and make these objectives available to students, residents, and faculty on their clerkship website. Residents are made aware of these objectives through their own program

websites as they prepare for clerkships; the concept is reinforced during the RATs workshops. For example, during the RATs module on giving feedback, clerkship objectives are used as an example of how to base feedback on a specific, stated learner expectations.

d. How and by whom is the participation of residents, graduate students, and postdoctoral fellows in sessions to enhance their teaching skills monitored?

See also the Required Course Forms and Required Clerkship Rotation Forms and information for standard ED-47.

As mentioned in the response for ED-24-c, the GME Office tracks attendance at the required RATs workshops and reports back to departments and to the Associate Dean for Medical Education. Also, as part of an ongoing effort to assess the effectiveness of resident teachers, four questions were added to the EPC's course evaluation instrument that focus on resident fairness and respect, knowledge and accessibility, teaching skills, and role modeling. Evaluation results for these questions indicate higher mean scores on all four questions since the launch of the required RATs workshops. For AY 2010-2011, the average score for the "the residents on this clerkship were effective in teaching procedures" ranged from 3.7 to 4.3 (on a 5-point Likert score, with 1=poor and 5=excellent). In addition, all programs include resident teaching skills as part of their overall resident performance assessment, although the evaluation instruments vary among the residency programs. Results of these evaluations are shared with the individual residents and used to develop goals for the following year.

ED-25. Supervision of medical student learning experiences at an institution that offers a medical education program must be provided throughout required clerkship rotations by members of the institution's faculty.

a. Describe how the medical school ensures that students are appropriately supervised during required clinical clerkship rotations.

All clerkship directors are expected to orient faculty (both full-time and gratis faculty) and residents about the requirement that medical students be supervised directly at all times when they are involved in patient care. Clerkship directors explain this requirement in various ways: a) at faculty or departmental meetings; b) at resident orientation programs; c) by telephone; d) by email; and e) in one-to-one meetings. Clerkship directors report that they experience no problems ensuring that students are properly supervised at all times. Improperly supervised students would be reported by hospital or clinic staff or physicians directly to the clerkship director. Mechanisms for assuring appropriate faculty supervision of student learning experiences vary from clerkship to clerkship. In some clerkships (Medicine, Obstetrics and Gynecology, for example), faculty must report how frequently they observed/worked with the student they are evaluating; in others (Neurology, Surgery, Psychiatry, for example), faculty complete individual evaluations of student performance. In addition, all clerkships require that faculty (or a resident) review and, in most cases, "sign off" on student entries in patient charts.

At the program level, students are required to complete a formal evaluation of every required clerkship (Appendix ED-25.a*1); this evaluation contains several questions about the faculty and residents who supervise them and contains an open-ended comment box for students to detail any concerns or suggestions. Although students do report from time to time that the residents are not as available as they would like them to be, we have had no student reports about residents not supervising them when they are involved in direct patient care.

b. List any required clerkship rotations in which students may be supervised (assessed or graded) by physicians who are not medical school faculty members (do not include residents/fellows). What steps are taken to provide faculty appointments to those physicians participating as teachers/supervisors in required clinical clerkship rotations?

All medical students are supervised by physicians who are medical school faculty (full-time, part-time, gratis), including the AHEC faculty. When a new community physician is identified who will supervise medical students, he or she must be approved at the department level for gratis faculty status.

c. Where direct teaching of students is carried out by individuals who do not hold faculty appointments at the medical school, describe how the teaching activities provided by these individuals are supervised by medical school faculty members.

NA

ED-26. A medical education program must have a system in place for the assessment of medical student achievement throughout the program that employs a variety of measures of knowledge, skills, behaviors, and attitudes.

Assessments of medical student performance should measure the retention of factual knowledge; the 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. The system of assessment, including the format and frequency of examinations, should support the goals, objectives, processes, and expected outcomes of the curriculum.

ED-29. The faculty of each discipline should set standards of achievement in that discipline and contribute to the setting of such standards in interdisciplinary and interprofessional learning experiences, as appropriate.

a. Describe the role of individual disciplines and the central curriculum management structure in setting standards of achievement historically set at department course/clerkship level—more centrally covered now through collaboration of EPC and subcommittees (e.g., establishing the grading policy for individual courses and clerkship rotations).

Grading policies for individual courses and clerkships have been historically established by the course or departmental faculty; however, the recent curriculum task force initiatives and the strengthened EPC curriculum oversight responsibilities have recently brought course and clerkship directors together to collaborate and discuss policies and standards for student achievement. For example, the Family Medicine, Medicine, and Pediatrics clerkship directors worked together to develop their grading system, which was then implemented by the Psychiatry clerkship director, when she was appointed. In addition, course and clerkship directors discuss policies related to setting standards of achievement at their monthly Clinical Curriculum Committee meetings, which are now formal EPC advisory committees. For example, the EPC asked the Clinical Curriculum Committee to discuss the criteria for earning Honors in each required clerkship; the OME prepared an analysis of these criteria, which was then discussed by the Committee. Subsequently, the Educational Policy Committee reviewed the Committee's feedback and developed a policy that created uniform criteria for earning Honors in the preclinical courses and required clerkships (approved, spring 2012) (see [Appendix ED-26/29.a*1](#)).

Problems that arise related to grading policies are also handled by the Educational Policy Committee. For example, in June 2006, the EPC eliminated the "deferred" grade for clerkships in order to create a uniform approach to student grades; then, in December 2008, the EPC approved the *Uniform Clerkship Remediation* policy to eliminate differences among clerkship remediation policies ([Appendix ED-26/29.a*2](#)). In summer 2007, at the request of the EPC Chair, the Vice Dean for Academic Affairs convened a Grading Task Force that was charged with answering a set of broad questions about grading, remediation, and testing. The Vice Dean then referred the Task Force report back to the EPC for its response and action as appropriate. In March 2008, the EPC approved a set of *Grading, Testing, and Remediation Policies* ([Appendix ED-1.b*2](#)).

More recently, the EPC set goals and guidelines for the Block Examination System, which is used during the preclinical years (first year, spring semester; second year, fall and spring semesters) to assess student mastery of learning objectives in all required courses. Three block exams are administered each semester. In fall 2010, in response to concerns that some block examination questions might have been compromised, the EPC, in consultation with the newly appointed Director for Preclinical Curriculum and Assessment, developed the *Block Examination System: Goals for AY 2010-2011* (Appendix ED-26/29.a*3), which details tasks and activities related to test question preparation and review that will lead to a more reliable block examination system.

b. Describe any policies related to the scheduling of examinations in the preclinical years. How are examination schedules determined?

The first year course directors develop the examination schedule collaboratively. The current schedule (a mid-semester exam week and an end-of-semester exam week) has been in place for many years without significant changes. Changes in the sequence of when each course administers its mid-semester exam are decided collaboratively by the course directors when one course director would like to move the day of the week or time for his or her examination. For the remainder of the preclinical years, the schedule for administering the block examinations is managed by the Office of Medical Education, which coordinates the Block Examination System (see response to ED-26/29.a).

c. Include a copy of any standard form(s) used by faculty members or resident physicians to assess students in small-group settings during the preclinical years and during required clinical clerkship rotations.

In the preclinical years, faculty in the Human Embryology course formally evaluate individual students in small-group learning experiences (see Appendix ED-26/29.c*1 for the form). Also, some preclinical courses award “participation points” for small group learning activities (for example, Biochemistry, Introduction to Clinical Medicine, Physiology, and Pharmacology); these points do count toward the final grade. Concerns about inadequate student participation or preparation or concerns about inappropriate behavior would generally be reported by the facilitator to the course director. In addition, peer evaluations are completed by students to assess student participation in small-group settings during the preclinical years (Gross Anatomy; Interdisciplinary Clinical Cases) (see Appendix ED-23.b* 1). In addition, students now complete evaluations of their teams in the Integrated TBLs (iTBL) which were added to the second year curriculum in AY 2011-2012 (Appendix ED-26/29. c*2). The Gross Anatomy and iTBL course directors provide students with written feedback about their ability to provide feedback as a peer evaluator (Appendix ED-26/29.c*3). In the required clinical rotations, faculty evaluate students on teamwork on the Uniform Clinical Performance Evaluation instrument (Appendix ED-15.a*1).

See also information for standards ED-1 and ED-33 and Required Courses and Clerkship Rotations, Part A, item (B.). Also, refer to the information for standard MS-33 in Section III: Medical Students relating to assessment of student performance. If there are no institutional policies regarding assessment of student performance, describe the means by which standards of achievement are set for individual required courses and clerkship rotations.

ED-27. A medical education program must include ongoing assessment activities that ensure that medical students have acquired and can demonstrate on direct observation the core clinical skills, behaviors, and attitudes that have been specified in the program’s educational objectives.

a. Is there a list of core clinical skills, behaviors, and attitudes that students must demonstrate? (check)

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

b. List each OSCE or standardized patient assessment that occurs outside of individual courses or clerkship rotations, and describe the general content areas each covers and when in the curriculum each occurs. For each, indicate whether the purpose of the OSCE or standardized patient assessment is formative (i.e., to provide feedback to the student) or summative (i.e., to inform decision-making about academic progression or graduation).

Clinical Skills Examination 3 (CSE 3) is a summative exam that occurs outside of individual courses and clerkships. The purpose of the CSE 3 examination is to assess student mastery of core clinical skills and to prepare students for USMLE Step 2 CS. In February 2009, the Educational Policy Committee approved a new requirement that all students who fail the CSE 3 exam must complete the Standardized Patient Program CSE 3 remediation in order to graduate ([Appendix ED-27.b*1](#)). The CSE 3 exam currently consists of four validated cases (over the years, the number of cases has varied) but the goal is to add two validated cases and/or additional stations by AY 2013-2014. All of the cases assess student mastery of a group of core educational objectives, and each case assesses case-specific educational objectives. All of these educational objectives are drawn from the school’s educational objectives document ([Appendix ED-1.d*5](#)).

NOTE: There are also CSE 1 and CSE 2 exams, both housed in the Introduction to Clinical Medicine 1 and 2 courses, respectively. CSE 1 assesses mastery of skills related to taking a complete history and physical examination; CSE 2 assesses mastery of skills related to taking a focused physical examination. Although housed in ICM, these two examinations are viewed, along with the CSE 3, as a “package” of examinations that assesses mastery of many of the school’s educational objectives in the communication, professionalism, clinical problem solving, and social and cultural contexts of health themes (see [Appendix ED-27.b*2](#) and [Appendix ED-27.b*3](#) for copies of the CSE 1 and CSE 2 checklists).

c. Complete the following table with data from the AAMC GQ, the AAMC CGQ and/or other school- specific sources (e.g., clerkship evaluations) that indicate whether students' clinical skills are being directly observed in each required clinical clerkship rotation.

Rotation	% agreeing/strongly agreeing they were observed				National % agreeing/strongly agreeing they were observed			
	History		Physical Exam		History		Physical Exam	
	2011	2012	2011	2012	2011	2012	2011	2012
Family Medicine	84	76	85	80	76	77	79	80
Internal Medicine	80	86	78	88	76	77	79	80
Obstetrics/Gynecology	70	69	74	73	58	60	68	70
Pediatrics	87	93	88	93	76	78	80	81
Psychiatry	85	89	83	91	82	83	80	81
Surgery	61	52	63	54	50	52	57	57

d. Provide data from the AAMC GQ, the AAMC CGQ, and/or the independent student analysis that address students' perceptions of their ability to perform core clinical skills.

The 2011 AAMC GQ indicates that 92% of graduating students are confident that they have acquired the clinical skills required to begin a residency program (vs. 90% nationally). The 2012 AAMC GQ indicates that 92% of graduating students agree/strongly agree that they have acquired the clinical skills required to begin a residency program (vs.90% nationally)

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

ED-28. A medical education program must include ongoing assessment of medical students' problem solving, clinical reasoning, decision making, and communication skills.

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

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

Preclinical Courses

All of the preclinical courses include clinical vignette questions on quizzes, examinations, and block examinations. In addition, the CSE 1 and CSE 2 examinations housed in the Introduction to Clinical Medicine course assess student skills in problem solving, clinical reasoning and communication. In addition to the samples that follow, additional examples of the materials and methods used to assess these skills in preclinical courses may be found in [Appendix ED-28*1](#).

Integrated TBL: This is an example of a question on the IRAT (pre-quiz) that students complete at the beginning of the TBL:

A 39-year-old female patient seeks care for two days of right upper quadrant pain and vomiting. She relates a history of worsening pain after meals, and a similar episode several months prior that resolved after a couple of hours. On examination, she is febrile to 101 F and tachycardic with mildly icteric sclera and pain with palpation in the right upper quadrant. Labs show: Total bilirubin: 9.5 (nl <1 mg/dL); Direct bilirubin: 8.5 (nl < 0.5 mg/dL); AST 150 (nl 8-20 U/L); ALT 170 (nl 8-20 U/L); Alkaline phosphatase 380 (nl 20-70 U/L); Serum amylase, lipase are normal. Which additional finding is most likely on further diagnostic workup?

- A. Stones seen on ultrasound in common bile duct
- B. Absent hepatic glucuronyl transferase activity
- C. Schistocytes seen on peripheral blood smear
- D. Positive Anti-Hepatitis A IgM on hepatitis antibody panel
- E. Obstructive mass seen on CT of the pancreatic head

Introduction to Clinical Medicine: Sample Block Examination Question: 1

You are conducting a regular "checkup" visit with an otherwise healthy 28 year old woman, who is a new patient for you and your practice. While discussing her past medical history, she mentions a history of gonorrhea 2 years ago. You have not yet obtained her social history.

Which of the following would be the LEAST appropriate next question or statement to further clarify her sexual health history?

- A. "How often are you and your husband sexually active?"
- B. "How do you currently protect yourself from getting a sexually transmitted infection?"
- C. "I wanted to ask a few additional questions about your sexual health if that is alright."

- D. "Are you currently in a relationship where you are sexually active?"
- E. "Have you had any other sexually transmitted infections besides that?"

Neurosciences: Description of small group case study assignment in the course syllabus: These will be small group based exercises where you will be able to discuss neuroscience, one on one, with fellow students and a faculty member. Briefly, the objective of this component is to provide you with the opportunity to apply what you have learned using a clinical scenario. This exercise tests your ability to synthesize and integrate the information that you have learned. You will be presented with case histories in which the signs and symptoms of a patient have been recorded. You will attempt to determine the site of the lesion in the nervous system that explains the symptoms. Individual students will be assigned one case to present, and grades (10% of total grade) will be based on presentation of the case (4%), on attendance (2.5%), determination of localizing sign (1%), performance on pathway issues (1.5%) and your preparation of a summary of a recent publication pertaining to your case (1%). Groups of students will be presented with six cases and all students are expected to learn everything they can about all six cases even though they are only responsible for presenting one case. Questions pertaining to all six cases and two new cases will be on the final comprehensive exam. More information pertaining to cases is present in your course manual. This assignment is graded by course faculty using a common evaluation form.

Clinical Clerkships

All of the required clinical clerkships assess students' skills in problem solving, clinical reasoning, and communication using the uniform clinical performance instrument. In addition, each clerkship has clerkship-specific assignments or experiences that assess these skills: Family Medicine (computer-based clinical cases and nutrition module); Pediatrics (CLIPP computer-based cases); Psychiatry (Patient Assessment paper); Obstetrics and Gynecology (case-based small groups); Medicine (palliative care clinical vignette; mini CSX exams); Neurology (standardized patient encounter); Surgery (oral exam questions). In addition to the samples that follow, additional examples of the materials and methods used to assess these skills in clinical courses may be found in [Appendix ED-28*2](#).

Surgery: Sample Oral Exam Questions:
Examples of Oral Exam Questions:

1. 44 year old G1 P1 African American Female with 1 month history of palpable right upper outer quadrant breast mass – how would you proceed with her workup?
2. 32 year old obese Caucasian Female presents with right upper quadrant post-prandial pain and jaundice. What is your differential diagnosis and how would you evaluate this patient?

Medicine: Mini Clinical Evaluation Exercise: Syllabus Description ([see Appendix ED-28*2](#) for evaluation form): "The mini-CEX is designed to assess the student's clinical skills during the Medicine Clerkship. The goal of the mini-CEX is targeted observation (15-20 minutes) by an attending, fellow, or upper-level resident of the student interacting with a patient in a clinical setting. One mini-CEX will focus on medical interviewing skills and the other mini-CEX will focus on physical examination. The purpose of this exercise is to lead to meaningful, useful, interaction feedback and an action plan that leads to recommendations for improvement. At least one item for improvement will be required for each evaluation exercise."

Family Medicine: Nutrition Case: Syllabus Description ([see Appendix ED-28*2](#) for actual case illustration): "Student must complete one module involving a nutrition case that will be graded by a faculty member. The student will choose from six different cases posted on Blackboard. The completed module must be submitted to Nancy Koppersmith via Blackboard by Monday noon of week 5. This will be part of the student's final numerical grade."

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

ED-30. The directors of all courses and clerkship rotations in a medical education program must design and implement a system of fair and timely formative and summative assessment of medical student achievement in each course and clerkship rotation.

Faculty of the medical education program directly responsible for the assessment of medical 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, and other factors associated with effective educational assessment.

In addition, the chief academic officer, curriculum leaders, and faculty of the medical education program should understand, or have access to individuals who are knowledgeable about, methods for measuring medical student performance. The medical education program should provide opportunities for faculty members to develop their skills in such methods.

An important element of the medical education program's system of assessment should be to ensure the timeliness with which medical students are informed about their final performance in courses and clerkship rotations. In general, final grades should be available within four to six weeks of the end of a course or clerkship rotation.

a. Describe the availability of individuals knowledgeable about educational assessment who can assist faculty in developing formative and summative assessments of students (e.g., experts in test development or educational measurement). Describe the organizational placement of such individuals (e.g., medical school office, university office, department).

Individuals knowledgeable about educational assessment who can assist faculty in developing formative and summative assessments of students are available to work with individual course directors, faculty, and staff. The University's Delphi Center for Teaching and Learning (<http://louisville.edu/delphi>) operates a satellite center in the Instructional Building of the medical school (B Building) so that faculty and staff have on site help on the HSC campus. Delphi Center staff provide faculty development programs and individual consulting on educational assessment. For example, medical school faculty utilize the Delphi Center to learn how to design and deliver quizzes through Blackboard, the University's course management system. Although the Delphi Center does not track consultations, we do know that approximately 75 medical school faculty attended Delphi Center workshops in AY 2010-2011 on a variety of topics, for example, Blackboard features and functions and constructing your philosophy of teaching. In fall 2011, the EPC invited Dr. Cathy Bays, a Delphi Center assessment specialist, to present a workshop for the First Year Curriculum and Second Year Curriculum Committee members on *Pitfalls and Practices in Current Practices, Test Mapping, Test Item Performance, and Piloting of New Items*.

The Office of Medical Education at the medical school also has individuals knowledgeable about educational assessment who can assist faculty in developing formative and summative assessments of students: the Associate Dean for Medical Education, the Associate Dean for Accreditation, the Director of Curriculum Research and Evaluation, and the Evaluation Coordinator. The Director for Preclinical Curriculum and Assessment has studied Team Based Learning in depth and has helped faculty develop TBL assessments.

In addition, the Director of the Medical Education Research Unit (MERU) has a terminal degree in Adult Education and expertise in assessment; he coordinates the graduate certificate program delivered on the HSC campus in partnership with the College of Education and Human Development, Teaching in Healthcare Professions, and teaches in all four courses in this program (they are team taught), one of which focuses entirely on assessment and evaluation. Nine faculty

have completed this course and are available to share their knowledge with colleagues. In addition, the Director of the Standardized Patient Program and one of the faculty in MERU are available to faculty seeking to design standardized patient encounters for both formative and summative assessment purposes.

Finally, the Office of Medical Education and the Office of Graduate Medical Education maintain close ties. The Director for Graduate Medical Education Research, Adult Education and Education Leadership (formerly a member of the OME) taught in the Teaching in Healthcare Professions certificate program and is available to assist faculty and staff seeking to develop or revise assessment instruments. In 2009, the students in the Evaluation course in the certificate program conducted a formal evaluation of the school's Standardized Patient Program as their course project, under the leadership of the Director for Graduate Medical Education Research, Adult Education and Education Leadership.

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

August 2010: *Team Based Learning and Writing an Effective TBL Module*—2 workshops presented by Dr. Dean Parmalee, Wright State University, Boonshaft School of Medicine, to HSC faculty (53 SOM faculty attended one or both of Dr. Parmalee's workshops ([Appendix ED-30.b*1](#)).

December 2010: *Constructing Quality Exams*—presented by Dr. Cathy Bays, University of Louisville Delphi Center for Teaching and Learning, to the joint meeting of the First Year Curriculum Committee and the Second Year Curriculum Committee ([Appendix ED-30.b*2](#)).

December 2011: *Pitfalls and Practices in Current Practices, Test Mapping, Test Item Performance, and Piloting of New Items*—presented by Dr. Cathy Bays, University of Louisville Delphi Center for Teaching and Learning, and Dr. Amy Holthouser, Director for Preclinical Curriculum and Assessment, SOM, to the joint meeting of the First Year Curriculum Committee and the Second Year Curriculum Committee ([Appendix ED-30.b*3](#)).

In addition, 3 medical school faculty attended a Dine and Discover session presented by the Delphi Center for Teaching and Learning focused on *How to Structure & Assess Team Projects that Promote Effective Student Teamwork.* The Dine and Discover sessions are held regularly and available to all HSC faculty ([Appendix ED-30.b*4](#)).

Note: Please see [Appendix ED-30.b*5](#) for a Delphi Center/SOM participation report.

c. Provide information on the average length of time for preclinical course grades to be made available to medical students.

All preclinical courses make grades available within one week after completion of the course.

d. For each required clinical clerkship/clerkship rotation, provide the average time for grades to be made available to medical students. What percent of students in each clinical discipline received their grades within six weeks? List clerkship rotations (or clerkship rotation sites) that are significant outliers.

Surgery – Immediately upon completion of clerkship (NBME shelf exam taken one week prior to last day of clerkship; final grades received on last day of clerkship)

Pediatrics – 4 weeks (90% within six weeks)

Obstetrics/Gynecology – 2 weeks (100% within six weeks)

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- Psychiatry – 3 weeks (100% within six weeks)
- Internal Medicine – 6 weeks (75% within six weeks)
- Family Medicine – 5 weeks (90% within six weeks)
- Neurology – 3 weeks (100% within six weeks)

NOTE: Beginning in AY 2012-2013, EPC formal review of each required course/clerkship, course director will respond to the following new question in the course/clerkship director portfolio questionnaire: Did all students receive final grades within 2 weeks of the last day of the course? (yes/no). If “no,” how many students did not receive their grade within 2 weeks and why? Clerkship directors will respond to this question: Did all students receive final grades within 6 weeks of the last day of the rotation? If “no,” how many students did not receive their grade within 6 weeks and why?

Also, the SOM Senior Academic Registrar, who is responsible for entering final grades into the University’s Peoplesoft system, will report twice each year to both the EPC and the Clinical Curriculum Committee, so that any concerns about compliance with the EPC’s grade submission policy may be addressed.

e. Describe how the medical school monitors the timing of provision of clerkship grades and ensures that course and clerkship rotation grades are released to students in a timely manner.

The Senior Academic Registrar monitors the timing of grade release and reports any outliers to the Interim Associate Dean for Student Affairs, who addresses it with the Clerkship Director.

See also information for standards ED-26 and ED-31 in this section, MS-33 in Section III: Medical Students, Required Courses and Clerkship Rotations, Part A, item (B.), and individual Required Course and Clerkship Rotation Forms.

ED-31. Each medical student in a medical education program should be assessed and provided with formal feedback early enough during each required course or clerkship rotation to allow sufficient time for remediation.

Although a course or clerkship rotation that is short in duration (e.g., less than four weeks) may not have sufficient time to provide a structured formative assessment, it should provide alternate means (e.g., self-testing, teacher consultation) that will allow medical students to measure their progress in learning.

a. Summarize the opportunities that are available to medical students for formative assessment during the preclinical years (e.g., the availability of practice tests, study questions, problem sets). How does the curriculum committee or other central authority ensure that students receive formative assessment(s) in the preclinical phase of the curriculum?

The preclinical course directors provide students with formative feedback on their mastery of course objectives in various ways. In the first year, the Gross Anatomy, Neurosciences, Embryology Physiology, and Microanatomy courses provide students with practice test questions from old exams. The Microanatomy course director holds review sessions before exams. The Gross Anatomy course also posts digital images to the course website for student review, and the Biochemistry course provides students with web-based supplemental modules for practice and formative assessment. The Pathology and Microanatomy courses use quizzes to provide frequent feedback to students. The Introduction to Clinical Medicine course schedules review sessions in the Standardized Patient Clinic prior to CSE 1 and 2 so that students may receive additional formative feedback on their mastery of clinical skills. The second-year block examinations also provide formative assessment for students.

The Office of Medical Education purchases vouchers for the second year students for the NBME Comprehensive Basic Science Examination, which students take via computer midway through the second semester of second year as a tool for identifying those topics they should focus on as they prepare for USMLE Step 1. The EPC is responsible for ensuring that students have opportunities to receive formative feedback and uses the annual course evaluation system to monitor student satisfaction with formative feedback. The required course evaluation includes a question focused on formative feedback: Feedback about performance was provided promptly. For AY 2010-2011, the course average for this question ranged from 4.0 to 4.6 in the first year and 3.6 to 4.5 in the second year on a 5-point Likert scale with 1=poor and 5=excellent. In recent years, the EPC has requested changes in formative feedback mechanism for Pathology and Embryology.

b. Describe the institutional policies and procedures that are in place to ensure that students receive formal feedback at the mid-point of a clerkship/clerkship rotation. Describe the means by which the occurrence of mid-clerkship rotation feedback is monitored within individual departments and at the curriculum management level.

The Educational Policy Committee requires that all students receive formal feedback at the mid-point of a clerkship rotation ([Appendix ED-31.b*1](#)). A copy of the form used by each required clerkship is filed in the Office of Medical Education. At the department level, each clerkship director is responsible for monitoring this process; at the curriculum management level, the Educational Policy Committee is responsible for monitoring this process. One of the questions on the web-based clerkship evaluation that each student completes states: "The mid-clerkship feedback I received (written or oral discussion about progress in the clerkship) was helpful." For AY 2010-2011, the average scores (using a 5-point Likert scale, with 1=poor and 5=excellent) for this response for each of the core required clerkships follow: Family Medicine, 4.3; Medicine, 4.1;

Obstetrics/Gynecology, 4.3; Pediatrics, 4.2; Psychiatry, 4.1; and Surgery, 3.6.

As part of its annual review of each required clerkship, the EPC reviews the scores on the student evaluations. Any score that is .5 below the average for the previous year is brought to the attention of the entire EPC by the two-member review team assigned to review each clerkship; thus, any problems with compliance to the requirement that all students receive mid-clerkship formal formative feedback would be discussed and dealt with via the annual EPC clerkship review process.

c. Provide data, by clerkship rotation, from the AAMC GQ, the AAMC CGQ, clerkship rotation evaluations, and/or the student independent analysis that illustrate the percentage of students receiving mid-clerkship rotation feedback. Include, if available, data regarding students' perceptions of the utility of this feedback and its relationship to the criteria that will be used for summative grading in the clerkship/rotation.

Clerkship	% of respondents agreeing and strongly agreeing that they received sufficient feedback		National % of respondents agreeing and strongly agreeing (if data from the AAMC GQ are used)	
	2011	2012	2011	2012
Family Medicine	85	82	81	81
Internal Medicine	85	91	85	86
Obstetrics-Gynecology	80	82	67	68
Pediatrics	89	96	83	84
Psychiatry	86	94	81	82
Surgery	71	66	65	66

Regarding student perceptions of the utility of the mid-clerkship rotation feedback, please refer to response for ED-31b. Also, the EPC required course evaluation contains this question: The evaluation of clinical skills during this clerkship was useful. The mean responses to this question (based on a 5-point Likert scale with 1=poor and 5=excellent) for AY 2010-2011 ranged from 3.5 – 4.3.

See information provided in Required Courses and Clerkship Rotations, Part A, item (B), and on the Required Course Forms.

ED-32. A narrative description of medical student performance in a medical education program, including non-cognitive achievement, should be included as a component of the assessment in each required course and clerkship rotation whenever teacher-student interaction permits this form of assessment.

a. List the courses in the preclinical phase of the curriculum that include narrative descriptions as part of the final assessment where the narratives are:

- i. provided only to students as a formative assessment – **Human Embryology***, **Gross Anatomy***
- ii. used as part of the final grade/assessment in the course – **Integrated TBL***

* Effective, AY 2012-2013

b. List the clinical clerkship rotations that include a narrative description as part of the final assessment where the narratives are:

- i. provided only to students as a formative assessment – **none**
- ii. used as part of the final grade/assessment in the course – **all required clerkships**
- iii. used as part of the Medical Student Performance Evaluation (MSPE) or Medical Student Performance Report (MSPR) – **all clerkships**

See information provided on the Required Course and Clerkship Rotation Forms.

ED-33. There must be integrated institutional responsibility in a medical education program 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 medical education program as a whole. An effective central curriculum authority will exhibit the following characteristics:

- Faculty, medical 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 medical education program as a whole will be designed to achieve its overall educational objectives. Evidence of coherence and coordination includes the following characteristics:

- Logical sequencing of the various segments of the curriculum.
- Content that is coordinated and integrated within and across the academic periods of study (i.e., horizontal and vertical integration).
- Methods of pedagogy and medical student assessment that are appropriate for the achievement of the program's educational objectives.

Curriculum management signifies leading, directing, coordinating, controlling, planning, evaluating, and reporting. Evidence of effective curriculum management includes the following characteristics:

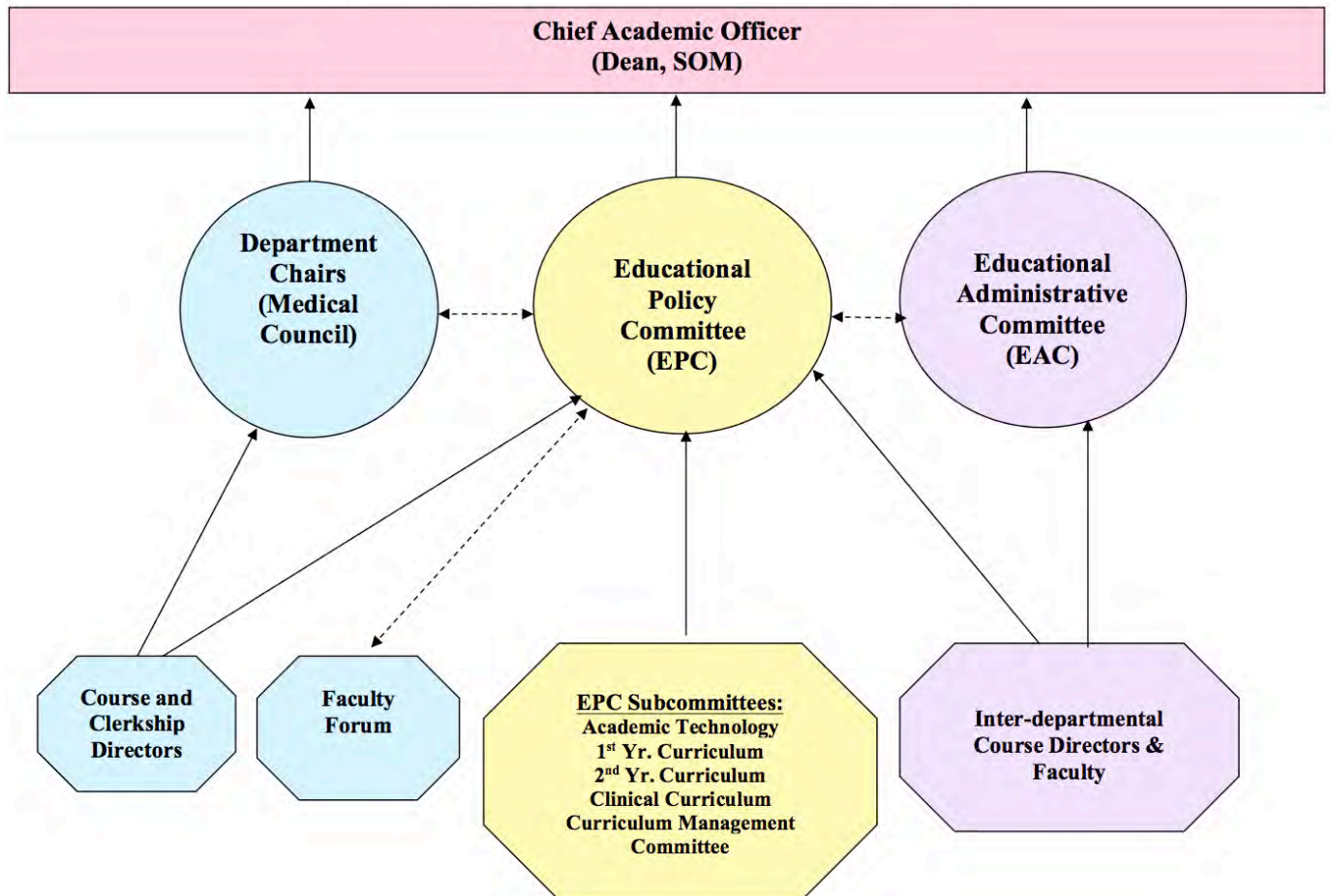
- Evaluation of program effectiveness by outcomes analysis, using national norms of accomplishment as a frame of reference.
- Monitoring of content and workload in each discipline, including the identification of omissions and unplanned redundancies.
- Review of the stated objectives of each individual course and clerkship rotation, as well as the methods of pedagogy and medical student assessment, to ensure congruence with programmatic 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 report on 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 following page.

Educational Governance Structure



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

Education Policy Committee

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

The Educational Policy Committee (EPC) is one of four standing policy committees of the Executive Faculty. The charge for the EPC is detailed in the *Appendix to the Bylaws and Rules of the School of Medicine* (<http://louisville.edu/medschool/facultyaffairs/policies.html>):

B. Educational Policy Committee

2. Responsibilities

- a. The Committee is responsible for the overall design, management, and evaluation of a coherent and coordinated curriculum that achieves the educational objectives of the medical school. The Committee will have the authority to lead, direct, coordinate, control, plan, evaluate and report on matters related to the curriculum to Faculty Forum and the Dean.
- b. To fulfill its responsibilities, the Committee will oversee the following curriculum-related activities:
 - Development of the schedule for all courses
 - Ensuring that the curriculum is logically sequenced
 - Maximizing horizontal and vertical integration within and across all four years of the curriculum
 - Evaluation of program effectiveness using outcomes analysis
 - Surveying the content and workload in each course and clerkship
 - Identifying and eliminating gaps and redundancies in the curriculum
 - Reviewing the learning objectives of each course and clerkship and ensuring their alignment with programmatic objectives
 - Development of policies that position students for mastery of the school's educational objectives and maximize their success as learners and future physicians
- c. The Committee will base its authority to implement these responsibilities on adherence to a defined process for determining curriculum changes, to ensure appropriate instructional freedom in the setting of central curriculum management.
- d. The Committee should ensure that each academic segment of the curriculum maintains common standards for content, such that each medical student will acquire appropriate competence in general medical care regardless of subsequent career specialty.

d. Describe the composition of this committee and the mechanisms for selecting its members and chair.

1. Membership
 - a. While the Dean has ultimate individual responsibility for the design and management of the educational program as a whole, the Committee has five elected Executive Faculty, four General Faculty appointed by the Dean, three student representatives, and the Associate Dean for Medical Education who is Chair and a non-voting member. Members of this committee who have served two full consecutive terms must wait an additional two full terms before being eligible to serve again.
 - b. The five members elected by the Executive Faculty are selected as follows: one member elected from the preclinical departments responsible for the major core courses in the first year; one member elected from the preclinical departments responsible for the major core courses in the second year; one member elected from the Trover Campus; and the other two members elected at large from the clinical departments.
 - c. Representatives appointed by the Dean include two basic science faculty and two clinical faculty. These representatives are selected from at least two (2) nominations for each vacant position forwarded to the Dean by the Educational Policy Committee. Of the four clinical faculty members serving on the Committee, there shall be at least one generalist and one specialist. The Committee may not have more than one representative from any department. Student members are elected for terms of three years in this committee. Appointed members should have appropriate qualifications for curriculum oversight responsibilities, including but not exclusive of:
 - Significant experience with curriculum development of implementation, including service as course or clerkship director, or completing of training in educational design.
 - Expressed willingness to assess, and make recommendations regarding instructional design or implementation for subjects outside of area of expertise.

NOTE: The charge and responsibilities of the Educational Policy Committee were revised by a vote of the Executive Faculty in June 2011. These revisions were made as a result of one of the recommendations of the Curriculum Implementation Committee focused on aligning the authority and responsibilities of the EPC with LCME standards. Prior to the Executive Faculty vote, the proposed changes were approved by the EPC, the Faculty Forum, and the Rules, Policies, and Credential Committee. Currently, additional changes to the language describing the EPC responsibilities have been proposed by the EPC and are moving their way through the medical school's approval process (Appendix ED.33.d*1)

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

	Weekly
X	Biweekly
	Monthly
	Bimonthly
	Other (describe)

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

The EPC has five standing subcommittees, which are advisory to the EPC. Until July 2009, three ad-hoc committees provided input to the EPC: First Year Course Directors, Second Year Course Directors, and Clerkship Directors Committees. In spring 2009, the EPC crafted charges and guidelines for five new official EPC Advisory Committees: 1) First Year Curriculum Committee; 2) Second Year Curriculum Committee; 3) Clinical Curriculum Committee; 4) Academic Technology Committee; and 5) Curriculum Integration Committee. The EPC felt that having a formal structure of advisory committees would empower the advisory committee members and enable the EPC to fulfill its growing oversight responsibilities. In addition, adding the Integration and Academic Technology committees was important because of the increased use of technology to support teaching and learning and the EPC's commitment to increasing horizontal and vertical integration. Finally, the EPC felt that changing the names of three of the advisory committees (formerly First Year, Second Year, and Clerkship Directors Committees) was important because it would more accurately reflect the expanded scope of these three committees (from course to curriculum) and support the EPC's goal of increased integration. The new EPC advisory committee structure was approved in July 2009 (Appendix ED-9.b*4).

In June 2011, the Educational Policy Committee replaced the Curriculum Integration Committee with a new Curriculum Management Committee (Appendix ED-33.f*1). This change was made in response to a Curriculum Implementation Committee recommendation that called for the creation of an EPC advisory committee that would be responsible for analyzing the entire curriculum in terms of content gaps and redundancies and maximizing horizontal and vertical integrations, and, ultimately, for developing the design of the proposed hybrid curriculum.

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

i. Developing and reviewing the institutional objectives for the educational program:

Ultimately the Educational Policy Committee is responsible for the development and review of the institutional objectives for the educational program; the process for completing such a review would include input from the EPC First Year Curriculum, Second Year Curriculum, Clinical Curriculum, and Curriculum Management Committees. The last review of the school's educational objectives occurred in AY 2009-2010 with input from these EPC subcommittees. The changes were approved by the EPC in March 2010, then forwarded to Faculty Forum for information and discussion in June 2010.

ii. Reviewing the objectives of individual courses and clerkship rotations: The EPC is responsible for reviewing the course and clerkship directors for each course and clerkship, while the course and clerkship directors and the faculty who teach in each course/clerkship are responsible for reviewing (and revising) the learning objectives for individual course/clerkship learning activities. The EPC would rely upon input from the Preclinical Curriculum Committee, the Clinical Curriculum Committee and the Curriculum Management Committee to conduct these reviews. Given that the EPC will now have RedMed to create course specific and aggregate reports on course and clerkship objectives, both at the macro and micro levels, the EPC revised its syllabus guidelines to include guidance on course/clerkship objectives and learning objectives (Appendix ED-33.g*1).

iii. Ensuring the use of appropriate teaching methods or instructional formats: The EPC is committed to increasing the percentage of non-lecture driven learning experiences in the

curriculum and has made efforts via policy development to achieve this goal. An example is the *EPC Schedule Guidelines*, one of which states that any increase in total course hours requires a formal request to the EPC from the course director (effective July 2009). Since then, the EPC has permitted a few courses to add a small number of hours to a course, for example, Pathology, but only when evidence of need was presented by the course director (or students). For example, the EPC approved an increase in the number of hours in the Pathology course because the course director was adding a TBL component to the course and student feedback from previous years documented student desire for additional lecture time in this critical second year course. The EPC also approved a small increase in course time in the Pharmacology course when student feedback provided evidence that some independent learning activities required supplemental lectures.

In March 2011, the EPC revised the schedule guidelines to detail a strategy for decreasing lecture hours in the preclinical courses ([Appendix ED-5.A-a*2](#)). These guidelines state that lectures should be delivered only in the morning, with the afternoon hours free for active learning, small group activities, and student study. They also state that the EPC goal for maximum percentage of lecture time is 50%. These guidelines over time will reduce the number of lecture hours in the preclinical curriculum. In September 2011, the EPC revised the way it calculates credit hours for each preclinical course ([Appendix ED-33.g*2](#)). Historically, lecture hours were “counted” on a 1-1 ratio, with small group activities, labs, and other active learning experiences counted on a 2-1 ratio, thereby devaluing these kinds of activities. The new EPC formula, effective AY 2012-2013, represents an effort to encourage course directors to review lecture content and transition it, when appropriate, to more active, engaged kinds of learning experiences appropriate for adult learners. In addition, the EPC has begun to use the AAMC Medbiquitous definitions for various student learning experiences, which will impact the way the Office of Medical Education staff calculate credit hours for its learning activities/schedule reports to the EPC (see [Appendix ED-5-A.a*3](#) for the new AAMC definitions and revised learning activities/schedule hours for AY 2012-2013).

Other examples of efforts to ensure the use of appropriate teaching methods or instructional formats include the EPC action to create a laptop requirement for all students (to facilitate the use of computer based teaching and supplemental learning) and the OME partnership with the clinical clerkships (Pediatrics, Surgery, Medicine, and Family Medicine) to provide partial funding for the purchase of computer-based clinical cases for teaching and supplemental learning.

iv. Ensuring that content is coordinated and integrated within and across academic periods of study: The EPC encourages course directors to work together to ensure that content is coordinated and integrated within and across academic periods. One example of this emphasis is the second year integrated schedule, which was piloted originally in AY 2011-2012. This project involved all of the second year course directors working together to create a year-long course schedule that organized content and instruction to integrated horizontally with the sequence in the second year Pathology course. The course directors re-arranged their content, as appropriate, so that students would be learning about the “heart,” for example, at the same time in Pharmacology, Pathology, and Introduction to Clinical Medicine. The EPC also directed Office of Medical Education staff to evaluate the impact of the new second year schedule; the Director of Preclinical Curriculum and Assessment used the results of these weekly evaluations to evaluate the new schedule and will use the results to assist the EPC Curriculum Management Committee as it designs a more hybrid curriculum (see [Appendix ED-33.g*3](#) and [Appendix ED-34.g*4](#) for sample evaluation forms and sample weekly results).

Another example of how the EPC ensures that content is coordinated and integrated within and across academic periods of study is the recently approved merger of the first year Biochemistry course and the second year Genetics course. This merger was initially suggested by the two course

directors and student leaders, then proposed to the Preclinical Curriculum Task Force, and ultimately approved by the Curriculum Implementation Committee and the EPC. The merger was needed to eliminate unnecessary redundancies in content in the curriculum and to integrate more closely the content of the two formerly independent courses. The first iteration of the new first year Genetics and Molecular Medicine course was taught in spring 2012, as this database was being prepared.

Finally, the Office of Medical Education, with the support of the EAC and the Dean, created a new Director for Preclinical Curriculum and Assessment Position (.5 FTE). This position, filled by a clinician educator, focuses on expanding coordination and integration of the preclinical curriculum, strengthening integration on the block examinations, and on increasing the clinical application of the basic sciences. To date, the Director for Preclinical Curriculum and Assessment has worked with course directors to replace the Pathology TBLs with iTBLs, which integrate content across all second year courses. In addition, she is currently working with first-year course directors to redesign the first-year course schedule to increase horizontal integration.

v. Ensuring the use of appropriate methods to assess student performance: The Standardized Patient Clinic (<http://louisville.edu/medschool/standardizedpatient/>) provides faculty with the tools needed to assess medical students' clinical skills, including communication and professionalism skills, appropriately. The EPC encourages all clerkships to use standardized patients; currently, Pediatrics, Neurology, Family Medicine, Obstetrics and Gynecology, and Psychiatry use SP encounters for assessment; Surgery is currently discussing how it will introduce SPs for assessment. In spring 2010, due to greater demand for standardized patient learning encounters, the Associate Dean for Medical Education, together with the Director of the Standardized Patient Program, developed a proposal to increase the number of SP examination rooms, which was approved by the Dean. By the start of AY 2010-2011, four new temporary examinations rooms contiguous to the SP Clinic were created for SP encounters. This expansion should improve access to the SP Clinic until funding is secured for the proposed new instructional building, which would then result in a complete renovation and expansion of the SP space to include 18 exam rooms. In addition, the EPC was responsible for implementing the Clinical Skills Examination 3, a program requirement that assesses student clinical performance. Finally, the Block Examination System, for which the EPC has oversight and which is coordinated by the Office of Medical Education, is under a mandate to review and revise test questions to ensure that they appropriately assess student mastery of both the knowledge and skills, for example, of clinical problem solving, that are taught throughout the preclinical years.

vi. Monitoring the quality of individual faculty members' teaching: Both the Educational Policy Committee and the individual departments monitor the quality of individual faculty members' teaching. The EPC required student course evaluation includes questions that focus on the overall teaching in the course or clerkship and on the individual faculty who taught in the course or clerkship. The course results, including the results on individual faculty teaching, are available to the course director and the department chair, and the course directors are asked to discuss the results of these evaluations with each faculty member who has been evaluated. In addition, the Office of Medical Education sends every faculty member who was evaluated individually by students an email with a link to his or her evaluations. (Note: The EPC is also considering adding the results of these individual teaching evaluations to its annual review of individual courses and clerkships to monitor more closely the quality of individual faculty members' teaching.)

The mean scores of course evaluation questions on overall teaching effectiveness in each course and clerkship are reported in the Office of Medical Education's *Annual Report* (Appendix ED-1.b*5), which is distributed to all department chairs, course and clerkship directors, the EPC, the EAC, and the Dean. Also, student responses to the global teaching questions are reviewed by the

EPC as part of EPC's annual review of each course and clerkship. In addition, student feedback in open ended question boxes is analyzed for patterns; when a pattern is identified that relates to the teaching of a particular faculty member, the EPC review team reports that as part of its course or clerkship report. Most frequently, concerns about an individual faculty member's teaching effectiveness have prompted the EPC to request that the department provide the faculty member with appropriate faculty development or work with the Office of Medical Education to develop a plan. In AY 2009-2010, the EPC also directed a course to decrease the number of faculty teaching in the course because of concerns about teaching effectiveness.

At the department level, in addition to using the results of the EPC student course and clerkship evaluation results to monitor individual faculty members' teaching (for departments that deliver courses and clerkships), each department must have in place a peer teaching evaluation system as part of its annual performance review process (Appendix ED-33.g*5). The results of these colleague evaluations are used at the department level to assess teaching effectiveness and develop the annual work assignment and goals for improvement for each faculty member and, eventually, for advancement purposes.

vii. Monitoring the overall quality and outcomes of courses/clerkship rotations: The EPC monitors the overall quality and outcomes of courses/clerkship rotations through its annual review process. This review is coordinated by the Director for Curriculum Research and Evaluation, who attends all EPC meetings. At the beginning of the academic year, two EPC faculty members are assigned to each required course and clerkship. They then review all of the materials posted to the EPC evaluation Blackboard website and produce a written summary of their findings; this summary is distributed to EPC members and an oral report and discussion occur at the next EPC meeting. The materials in the course or clerkship portfolio include the course or clerkship syllabus, the completed *Course/Clerkship Director Portfolio Questionnaire*, student performance results, student course evaluation results (Likert scores and student comments), an OME-produced analysis of the patterns in the student comments, the EPC memo or email to the course or clerkship director reporting the results of the previous year's review, and the EPC evaluation team questionnaire. Together, the documents in the course or clerkship portfolio provide a full description of the overall quality and the outcomes of each course and clerkship rotation. In some cases, when the EPC review team's results indicate that the course or clerkship is doing very well, the EPC will direct the Director for Curriculum Research and Evaluation and her staff to complete the annual review the following year and then report back to the EPC. (Note: This process of directing the Director for Curriculum Research Evaluation to conduct the annual course or clerkship review may occur only for two consecutive years, after which an EPC team must conduct the review.)

This EPC formal annual review is conducted at the end of each required course and clerkship; however, in the case of the clerkship rotations, the "mistreatment" question on the clerkship evaluation is monitored throughout the academic year to ensure a prompt response to any issues that relate to student mistreatment. In addition, the First Year Curriculum Committee and the Second Year Curriculum Committee agendas include a standing item on "Student Concerns" to facilitate a prompt response by these two committees, or the EPC, if appropriate, to any issue related to the quality of a course in progress.

The required course evaluation contains two "overall" questions: 1) Please rate the overall effectiveness of the teaching in the course" and 2) Please rate the overall quality of the course. For AY 2010-2011, the course averages for the "overall teaching" question ranged from 2.9 to 4.1 in the first year courses and 2.9 to 3.8 in the second year; the course averages for the "overall course" question ranged from 2.8 to 4.2 in the first year courses and from 2.3 to 4.0 in the second year. The EPC used these scores to develop recommendations for the course

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directors whose course averages for these courses were lower than desired, for example, Microanatomy (second year, 2.5) and Neurosciences (first year, 2.9). Some examples of actions that have been recommended or required by the EPC to ensure the overall quality and outcomes of course/clerkship rotations include a) reducing the number of faculty teaching in a course, b) providing faculty development opportunities for a struggling teacher, c) distributing practice questions to students, and d) conducting focus groups with students about a particular course.

viii. Monitoring the outcomes of the curriculum as a whole: The EPC uses internal and national instruments to evaluate the curriculum as a whole:

National Instruments Used to Monitor the Outcomes of the Curriculum as a Whole

AAMC Graduation Questionnaire: The EPC reviews the results annually; the Dean and his staff, course and clerkship directors and the Educational Administrative Committee also review these results.

USMLE Step 1 Results: The EPC reviews the results annually; the Dean and his staff, course directors and the Educational Administrative Committee also review these results.

USMLE Step 2 CS/CK Results: The EPC reviews the results annually; the Dean and his staff, clerkship directors, the Director of the Standardized Patient Program, and the Educational Administrative Committee also review these results.

Local Instruments Used to Monitor the Outcomes of the Curriculum as a Whole

Final Grades in Required Courses and Clerkship Rotations: The EPC course and clerkship evaluation teams review these results annually; the course and clerkship directors and the respective teaching faculty also review these results.

Clinical Skills Examination 3: The EPC reviews these results annually; the Director of the Standardized Patient Program and the clerkship directors also review these results.

Office of Medical Education *Educational Initiatives* Survey (years 1, 2, 3, 4): These surveys are prepared for the Associate Dean for Medical Education by the Director for Curriculum Research and Evaluation to collect student feedback about new educational initiatives and, in some cases, student reflections on their longitudinal experiences as medical students. They are administered at the end of the fall and spring semesters and the results are reviewed by the Associate Dean and OME staff. Specifically, the fourth year survey asks graduating students to provide feedback on the curriculum as a whole.

Clinical Orientation Evaluation: This evaluation is generated by the OME and used to collect feedback from students about the entire preclinical curriculum, specifically in terms of their USMLE Step 1 experience. The results are reviewed by the Associate Dean for Medical Education and patterns that may require discussion or action are forwarded to the EPC.

Office of Medical Education Annual Report: This report ([Appendix ED-1.b*5](#)) is distributed to the Dean, the department chairs, and course and clerkship directors to ensure that they have a picture of the overall quality and outcomes of the curriculum as a whole; it is discussed at EPC meetings and at Medical Council (department chairs). This report is especially useful because it is the only OME publication that provides stakeholders with the opportunity to learn how the various course and clerkship outcomes compare and contrast across the board.

ED-34. The faculty of a medical education program must be responsible for the detailed design and implementation of the components of the curriculum.

Faculty members' responsibilities for the medical education program include, at a minimum, the development of specific course or clerkship rotation objectives, selection of pedagogical and assessment methods appropriate for the achievement of those objectives, ongoing review and updating of content, and evaluation of course, clerkship rotation, and teacher quality.

Provide examples of the types of changes that can be implemented at the level of the course or clerkship rotation and the types of changes that require curriculum committee or other central approval prior to implementation.

Course and clerkship rotation directors may revise the learning objectives for individual learning experiences in their courses and clerkships, assign faculty to teach and facilitate the course or clerkship learning experiences, review and update content, design assessment instruments, and evaluate individual faculty teaching effectiveness. Here are some examples of implemented changes: a) migrating lecture content to TBL (Pathology, Physiology, Biochemistry); b) adding clinical sites for a clerkship (Neurology, Obstetrics and Gynecology); c) replacing face-to-face lectures with web-based modules (Medicine, Surgery), d) assigning faculty to lectures or small groups (all preclinical courses and clinical clerkships); and e) adding or eliminating quizzes (all preclinical courses).

Examples of the types of changes that require EPC action or approval prior to implementation include a) changing the number of total course hours, particularly increasing total lecture hour; b) changing the exam schedule; c) making a change in the course schedule (with the exception of emergencies); d) adding new courses or electives; e) eliminating required EPC questions from the end of course/clerkship student evaluation; f) changing course or clerkship objectives; and g) changing course or clerkship policies that would result in non-compliance with any EPC policy or guideline.

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

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

a. Describe the process of formal faculty review for each of the listed curriculum elements. Include in the description the frequency with which such reviews are conducted, the means by which they are conducted, under whose auspices (e.g., the department, the curriculum committee) they are undertaken, the administrative support that exists for such reviews (e.g., through an office of medical education), and the individuals and groups (e.g., the curriculum committee) that receive the results of the evaluations.

i. Required courses: The EPC conducts a formal annual review of all required courses (please see response to ED-33.g.vii. A portfolio is created by OME staff for each course; in addition to student performance results, student course evaluation results, and other materials, the course portfolio contains the *Course Director Portfolio Questionnaire*, which details the results of the course director's own review of the course (Appendix ED-35.a*1). Once the portfolio is complete, the two-member EPC review team analyzes the contents of the portfolio and crafts a summary of its findings (Appendix ED-35.a*2). The Director for Curriculum Research and Evaluation and her staff are available to provide support to the EPC review team as it conducts its review, for example, analysis of the student comments on the course evaluation (Appendix ED-35.a*3). Once the summary is produced, it is distributed to the EPC members and discussed at the next EPC meeting, at which time the EPC finalizes any requests or recommendations for the course in its next iteration. One member of the EPC review team then drafts a memo or an email to the course director, which is finalized by the EPC and then forwarded to the course director, the members of the EAC, the department chair (if the course is delivered by a department), and the Dean (Appendix ED-35-a*4). In addition, the OME posts representative course changes to the course evaluation website under the heading of "Your Opinion Matters" (Appendix ED-35.a*5). It should be noted that many of the preclinical course directors use the EPC data sources to conduct a department level or course faculty review of a course.

ii. Required clerkship rotations: The EPC also conducts a formal annual review of all required clerkships using the same processes and procedures described in the responses to ED-33-g.vii and ED-35-a.i., but replacing the *Course Director Portfolio Questionnaire with the Clerkship Director Portfolio Questionnaire* (Appendix ED-35.a*6). The second difference between the EPC course and clerkship evaluation procedures is that the EPC creates a mid-year report for the required clerkship directors using the results of the student course evaluations to provide formative feedback for the clerkship directors. NOTE: As is the case for the preclinical courses, most clerkship directors meet with their teaching faculty to conduct a review of the course.

iii. Individual years or academic periods of the curriculum: The EPC is ultimately responsible for formal review of the individual components of the curriculum; this work has historically been the responsibility of the First Year Curriculum Committee, the Second Year Curriculum Committee, and the Clinical Curriculum Committee, formerly the ad hoc First Year Course Directors Committee, the Second Year Course Directors Committee, and the Clerkship Directors Committee. These three committees meet monthly to discuss matters related to their respective educational curricula. Examples of committee discussions related to individual years of the curriculum include the development of a proposal to pilot a more integrated second year course schedule (Second Year Curriculum Committee), a proposal to merge the first year Biochemistry course with the second year Genetics course (First and Second Year Curriculum Committees), and discussions about the number of weeks needed by each clerkship to achieve each clerkship's objectives (Clinical

Curriculum Committee).

When any of these committees develops a recommendation or proposal, it is forwarded to the EPC for discussion and action. Similarly, the EPC often sends discussion topics to one or more of these advisory committees for feedback, for example 1) a draft of a new set of guidelines or policy, 2) schedule development guidelines, or 3) a new grading policy. In 2010, the EPC created a new advisory committee, the Curriculum Management Committee, in order to have a committee whose charge focused on formal review of large components (individual years or academic periods) of the curriculum. To date, this task has been extremely challenging without access to a powerful curriculum mapping system; the EPC looks forward to using RedMed to conduct curricular reviews once it is fully operational.

In addition to the formal reviews conducted by the EPC advisory committees, two other groups have reviewed the curricula of individual years or academic periods in the past three years: the Clinical Block Task Force (2009), which reviewed the third and fourth year curriculum, and the Preclinical Block Task Force (2010), which reviewed years one and two. Once the task forces had completed their work and developed their recommendations, the EPC took over and reviewed and revised the results and then forwarded them to the Dean for final approval. After the Dean approved the EPC report, a Curriculum Implementation Committee was formed and charged with developing plans to move the recommendations from ideas to actions. Currently, 26 of the 41 recommendations have been implemented; the EPC has the responsibility for implementation of the remaining recommendations, with the goal of implementing all recommendations by AY 2014-2015.

As individual Task Force recommendations are implemented, the EPC advisory committees will be responsible for reviewing the success of implementation and forwarding their findings to the EPC. For example, the Second Year Curriculum Committee has reviewed the results of the pilot project that involved aligning second year content more closely across courses, and the First Year Curriculum Committee is currently discussing changes to the first year curriculum. In addition, the EPC Curriculum Management Committee will be responsible for developing a proposal for a more hybrid four-year curriculum, which will then go to the EPC for discussion and action.

iv. The entire curriculum: The EPC is responsible for any formal review of the entire curriculum. When the 2005 LCME site visit was conducted, the school's educational objectives for the medical student curriculum had been in place for approximately one year and we planned to use these objectives as a tool for formal review of the entire curriculum. Since 2005, the EPC has acted to require that all course and clerkship syllabi contain information for students that explains how the course or clerkship objectives link to the school's educational or program level objectives. Initially, the EPC required that this information focus on which of the eight school "themes" were linked; however, in 2011, the EPC expanded this requirement so that course and clerkship syllabi must now provide students with information about how the course or clerkship objectives link both to the school's themes and the objectives in those themes (please see [Appendices ED-3.a*2, 3, 4, 5](#) for examples of how this information is presented to students in course and clerkship syllabi). In 2011, the EPC renamed the Curriculum Integration Committee the Curriculum Management Committee, in large measure to create an advisory committee that would focus on the entire curriculum. However, despite the increased awareness and use of the school's educational objectives and a stronger organizational structure for formally reviewing the entire curriculum, the lack of an electronic curriculum mapping system created a significant barrier to conducting a formal review of the curriculum at the "objective" level. Now that the school has purchased LCMS+ (RedMed), we will be able to develop a formal timeline for regular EPC reviews of the entire curriculum.

That said the EPC has always taken its responsibility for formal review of the entire curriculum very seriously and used existing resources and assessments to ensure that our graduates have mastered the school's educational objectives. The primary tool for conducting this formal review is the *AAMC Graduation Questionnaire*, whose results the EPC reviews annually. The *Questionnaire* results are distributed to several groups: the First Year Curriculum Committee, the Second Year Curriculum Committee, the Clinical Curriculum Committee, the EAC, and the EPC. In addition, the Director for Curriculum Research and Evaluation and her staff produce a summary of the key patterns in the *Questionnaire* results and the student comments, which is also distributed to these groups ([Appendix ED-35.a*7](#)). Each of these groups is asked by the EPC to provide feedback about the GQ results that represent curricular concerns. In the past, these concerns have resulted in EPC actions that changed what was being taught in the curriculum; for example, when *Questionnaire* results indicated that certain topics were underrepresented in the curriculum, for example, biostatistics/epidemiology, patient safety, and literature review skills, the EPC began working with course directors to find ways to increase the presence of these topics in the curriculum. In addition to identifying individual courses that could add this content (and what to eliminate in order to avoid increasing time in the students' schedule), the EPC approved a new required course, Topics in Clinical Medicine (TCM), in order to create opportunities for students to learn about topics or skills that should have been in the curriculum but weren't. The TCM course was launched in AY 2010-2011 and remains in "pilot" status as the course director works with students and other clerkship directors to develop a curriculum and pedagogy that will achieve the objectives of the course without using traditional lectures or taking students away from their clinical clerkship rotation responsibilities. Ultimately, the EPC will use the results of the TCM pilot to determine whether the course is achieving the goals established by the EPC and should continue.

b. Provide a copy of any standardized templates used for course and clerkship rotation reviews and any standardized forms used by students for the evaluation of courses and/or clerkship rotations

Three documents provide the framework for the annual review of each required course and clerkship conducted by the two-member EPC evaluation team: 1) the Course /Clerkship Evaluation schedule/team assignments; 2) instructions for completing the EPC team's Course/Clerkship Evaluation Summary on the EPC Blackboard evaluation website; and 3) the actual EPC team's Course/Clerkship Evaluation Questionnaire ([Appendix ED-35.b*1](#)).

All students complete a Course/Clerkship Evaluation ([Appendix ED-25.a*1](#) and [ED-35.b*2](#)); when a course or clerkship ends, students receive an email from the OME containing a web link to the evaluation questionnaire. All course and clerkship directors complete a *Course or Clerkship Director Portfolio Questionnaire* ([Appendix ED-35.a*1](#) and [Appendix ED-35.a*6](#)). All of these evaluations are stored in the OME's course or clerkship portfolio for the particular course/clerkship.

Here is a summary of how the EPC course evaluation annual review process works, using the second year Microbiology course as an illustration. The second year Microbiology course and its course director had for many years been highly praised by students, including multiple Golden Apple awards for the course director. However, in recent years, the student evaluations of the course now reflected growing student concerns about the organization and teaching in the course, which greatly concerned and frustrated the course director. The EPC took action after hearing the report of the EPC evaluation team and worked closely with the course director to strengthen the course. Although not all of the EPC recommendations have been actualized, in large measure because a new chair has not yet been hired, the informal feedback about the course is more positive, and the changes that were implemented as a result of the EPC annual course

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review appear to have had a positive impact on the course and thus student performance and satisfaction. The interim report produced by the OME in fall 2011 indicates that several components of the course (teaching and organization, for example) have improved when compared with last year's student evaluation scores (Appendix ED-35.b*3). Included in the database are all of the documents related to the AY 2010-2011 EPC annual review for the second year Microbiology and Immunology course (Appendix ED-35.b*4).

See also information for standards ED-33 and ED-46.

ED-36. The chief academic officer of a medical education program must have sufficient resources and authority to fulfill his or her 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 medical education program as a whole. He or she may, however, delegate operational responsibility for curriculum oversight to a vice dean or associate dean.

Examples of the kinds of resources needed by the chief academic officer to ensure effective delivery of the medical education program include:

- Adequate numbers of teachers who have the time and training necessary to achieve the medical education program's objectives.
- Appropriate teaching space for the methods of pedagogy employed in the medical education program.
- Appropriate educational infrastructure (e.g., computers, audiovisual aids, laboratories).
- Adequate educational support services (e.g., examination grading, classroom scheduling, faculty training in methods of teaching and assessment).
- Adequate 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 medical education 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 has delegated responsibility for the medical student educational program to an associate dean or other individual, provide the name and title of the latter individual.

Name:	Toni M. Ganzel, MD, MBA, FACS
Title:	Interim Dean

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.

c. Briefly describe the infrastructure that is under the authority of the chief academic officer (e.g., 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. List the individuals, with their titles, in this administrative structure and the percent FTE contribution of each individual to this effort. Note the reporting relationships of the directors of any such office.

The mission of the Office of Medical Education (OME) (<http://louisville.edu/medschool/curriculum>) is to serve as the central coordinating unit for the development, implementation, and evaluation of the undergraduate medical education program. The Office of Medical Education also serves as a resource to educational programs in Graduate Medical Education and Continuing Medical Education and to other Health Sciences Center Schools. To achieve this mission, the Office of Medical Education: 1) provides training and educational resources through the Standardized Patient Program and Patient Simulation Program; 2) provides consultation and support to faculty conducting medical education research through the Medical Education Research and Evaluation Unit; 3) Supports the Educational Policy Committee, which has responsibility for and oversight of the curriculum and curriculum-related policies; 4)

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provides guidance and support to departments, course and clerkship directors, and individual faculty to assure that the curriculum reflects the educational objectives for the undergraduate medical education program; 5) oversees the certificate in Health Professions Education program; and 6) coordinates the online course evaluation system.

The entire Office of Medical Education team consists of five sub-units: 1) the Associate Dean and her support team, 2) the Medical Education Research Unit, 3) the School of Medicine Office of Academic Technology, 4) the Standardized Patient Program and 5) the Paris Simulation Center, each of which has a director and staff. The Directors of each of these five units report to the Associate Dean for Medical Education, who reports to the Vice Dean for Academic Affairs. In addition, five clinical educators, including the Director for Preclinical Curriculum and Assessment, and the Assistant Dean for Clinical Education, report to the Associate Dean for Medical Education and are part of the OME organization.

The individuals who are part of the OME organization are listed below:

Associate Dean for Medical Education: Ann Shaw, MD. 0.8 FTE

Office of Medical Education

Director of Medical Education: Leslee Martin, MS. 1.0 FTE
Evaluation Coordinator: Paul Klein, Ph.D. 1.0 FTE
Administrative Associate: Jan Ke-McCue. 1.0 FTE
Program Coordinator: Tonya Hockenbury. 1.0 FTE
Program Coordinator Senior: Sally Detwiler, MA 1.0 FTE
Coordinator, Curriculum Management Information Systems: Amy Kiper 1.0 FTE
Program Coordinator Senior: Shelley Gibson 1.0 FTE
Director of Preclinical Curriculum and Evaluation: Amy Holthouser, MD.0.5 FTE
Assistant Dean for Clinical Education: Sheldon Bond, MD0.1 FTE

School of Medicine Office of Academic Technology

Director of Instructional Technology: Kent Gardner. 1.0 FTE
Classroom and Student Support Technician: Brent Mehring. 1.0 FTE
Program and Communications Support Technician: Jason Porter. 1.0 FTE
Learning Spaces Technology Specialist: David Aylor 1.0 FTE

Standardized Patient Program

Director, Standardized Patient Program: Carrie Bohnert, MPA 1.0 FTE
Assistant Director: Mimi Reddy, MS. 1.0 FTE
Program Coordinator: Vacant. 1.0 FTE

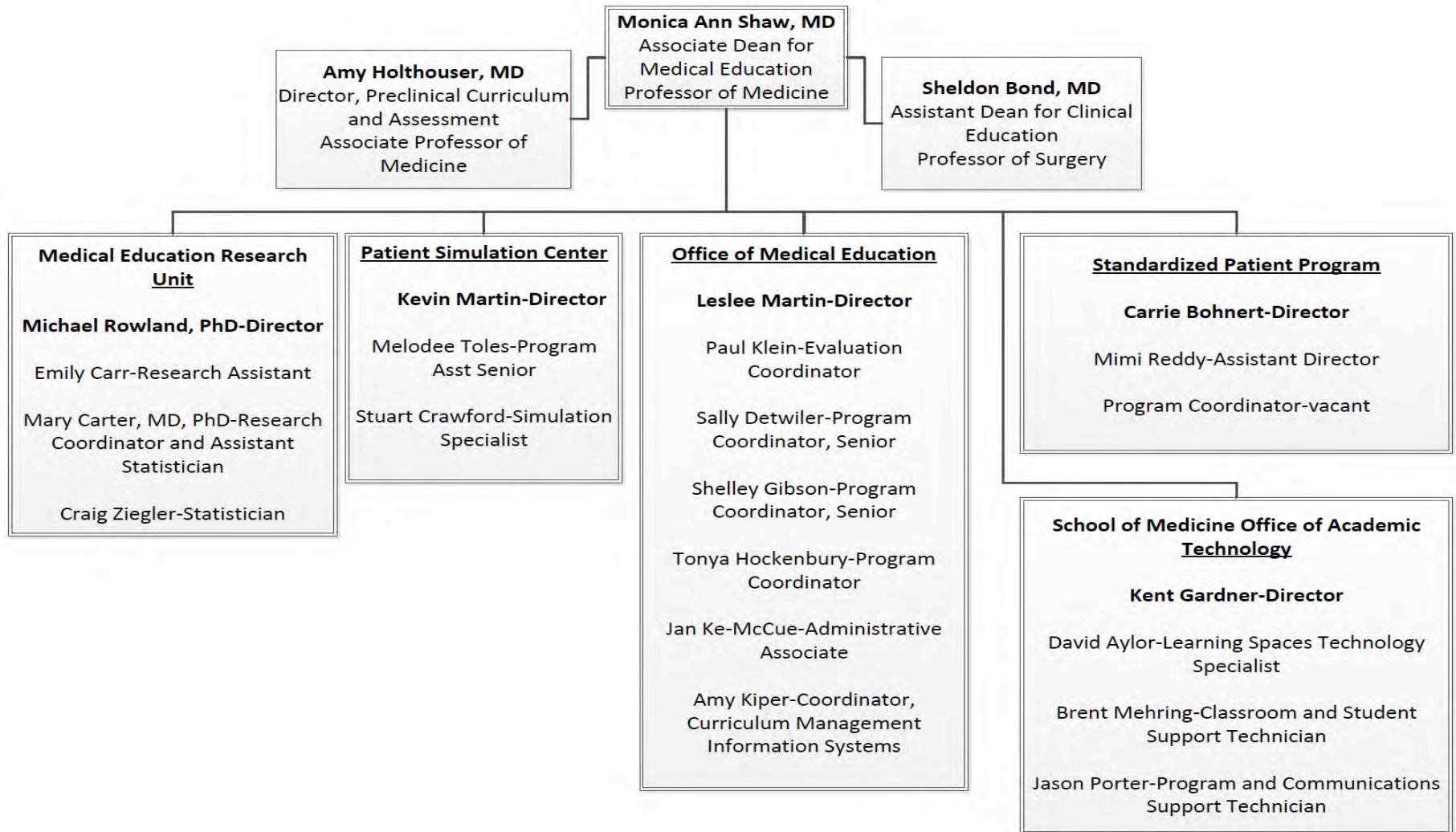
Patient Simulation Program

Director, Operations, Patient Simulation Center: Kevin Martin. 1.0 FTE
Simulation Specialist: Stuart Crawford 1.0 FTE
Program Assistant Senior: Melodee Toles. 1.0 FTE

Medical Education Research and Evaluation Unit

Director, Medical Education Research Unit: Michael Rowland, PhD. 1.0 FTE
Research Coordinator: Mary Carter, MD, PhD 0.5 FTE
Statistician: Craig Ziegler, MA. 0.5 FTE.
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ORGANIZATIONAL CHART: MEDICAL EDUCATION



. Indicate whether there a specific budget for the medical education 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 Office of Medical Education (OME) has its own budget, which is almost entirely funded by the Dean. The AY 2010-2011 budget was \$2,032,566, which was utilized to support salaries and operating expenses; the AY 2011-2012 budget is \$2,248,707, a little less than a 10% increase. The OME also generates some new revenue through grants and services. These new revenues are shared with the Dean's Office using a formula developed collaboratively in AY 2009-2010 (Appendix ED-36.d*1). The Associate Dean for Medical Education has oversight for the annual OME budget; she is assisted by the Director for Curriculum Research and Evaluation, who manages reporting of new revenues generated by OME, and by a staff member who produces a monthly report and advises the Associate Dean on any problems with the budget. The budget is reviewed annually by the Associate Dean for Medical Education and the OME unit directors and then discussed and affirmed by the Associate Dean and the School of Medicine Business Office.

The Associate Dean for Medical Education has the authority to allocate OME funds to support OME or EPC initiatives; for example, the OME funded the purchase of vouchers for the NBME Comprehensive Basic Sciences Examination, to explore the possibility that the aggregated results could be used not only as a diagnostic exam for students preparing to study for USMLE Step 1, but as a validated curriculum review instrument for the EPC. However, OME funds are not used to support teaching at the department level. Such funds are part of individual departmental budgets, with the exception of the interdepartmental courses such as ICM or Human Embryology, which are funded by the Dean's Office and whose funds appear on the OME budget.

Fortunately, the OME has not suffered any cuts in its operating budget, even when medical school departments experienced cuts. That said, decreases in clinical revenues and shrinking state funding have resulted in no significant increases in OME operating expense dollars, although funding for new initiatives related to the CIC recommendations has been made available by the Dean, for example, to fund the LCMS+ curriculum mapping system, to increase the number of staff in the Office of Academic Technology and OME, to fund the Educator Consultant Pilot Project, and to hire a clinician course director for the first year Embryology course, formerly funded by the Department of Anatomical Sciences and Neurobiology.

See also information for standards ED-33 and ED-35 and Required Course and Clerkship Rotation Forms.

ED-37. A faculty committee of a medical education program must be responsible for monitoring the curriculum, including the content taught in each discipline, so that the program's educational objectives will be achieved.

The committee, working in conjunction with the chief academic officer, should ensure 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, the 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 medical student will acquire appropriate competence in general medical care regardless of subsequent career specialty.

a. Describe the frequency with which and the means by which curricular content is monitored and the ways in which the results of the monitoring are used. For example, is a curriculum database used? Note which individuals, committees, and units (such as departments) receive the results of the reviews of curriculum content.

Curricular content is monitored by the EPC, and the results of reviews are used by the EPC to make adjustments in the curriculum. In 2009, the EPC called for a major review of curricular content, which was subsequently conducted by two task forces, the Clinical Block Task Force and the Preclinical Block Task Force. Both task forces consisted of faculty, course and clerkship directors, administrators, and students. The Task Forces were chaired by the Associate Dean for Medical Education. The reports produced by the two task forces (Appendices ED-9. c*1, 2) were reviewed and subsequently approved by the EPC, Faculty Forum and the Dean.

These two reports were then turned over to the Curriculum Implementation Committee (CIC), which was also chaired by the Associate Dean for Medical Education/Chair, EPC, and whose members were drawn from faculty, course and clerkship directors, administrators, staff, and students. The CIC reviewed the task force recommendations and the action items contained in the Action Plan that grew out of the August 2010 Dean's LCME Retreat (Appendix ED-3.b*1) and produced its own report: *Action on the Preclinical Curriculum Task Force and the Clinical Curriculum Task Force Recommendations and the LCME Action Plan Tasks* (Appendix ED-9.c*4). The CIC final report, issued on July 19, 2011, lists 15 task force recommendations as "implemented" and proposed 16 action items/recommendations for completion during AY 2011-2012 and 11 action items/recommendations for completion between AY 2012-2013 and AY 2014-2015. Almost all of the CIC action items and recommendations were curriculum-related. The CIC final report was approved by the EPC, Faculty Forum and the Dean, who charged the EPC with tracking the progress of the implementation of the remaining CIC action items.

Currently, the EPC and its advisory committees are working on implementation of all of these action items: 26 CIC action items/plans have been implemented, 15 Task Force recommendations and 11 LCME Action Plan items; 12 CIC action items/plans are underway, 8 Task Force recommendations and 4 LCME Action Plan items; and 7 CIC action items/plans are in the early discussion phase. Five of these seven action items were scheduled for implementation or completion in AY 2011-2012. One of these items, "allow faculty who teach medical students access to all course Blackboard websites," cannot be done in Blackboard but will be completed once RedMed is fully operational; the other item involves a review of all clinical electives to ensure that each selective and elective is appropriately designed and linked to the school's educational objectives and has been postponed due to prioritizing some of the other 2011-2012 CIC action items. The five remaining "early discussion" action items are scheduled for implementation

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between July 1, 2012 and June 30, 2015.

The course and clerkship directors and the department chairs were involved in this process and receive updated reports from time to time of the results of all of these efforts. The Educational Administrative Committee and the Dean also received frequent updates.

b. Describe the means by which gaps and unwanted redundancies in curricular content are identified and corrected. If a curriculum database is used, identify those individuals who have access to it and who have responsibility for monitoring and updating its content.

Currently, the EPC's annual review of the *AAMC Graduation Questionnaire* results, input from students at EPC and EPC advisory committee meetings, suggestions from faculty with expertise in a particular content area, and the Dean are the primary tools for EPC identification of gaps and unwanted redundancies in curricular content. For example, input from the previous Dean resulted in the creation of the Humanities in Medicine thread in the curriculum; input from faculty working on a grant focused on a palliative care curriculum resulted in a one-week required Palliative Care rotation housed in the third-year required Medicine clerkship; and the results of the *AAMC Graduation Questionnaire* produced changes in the Introduction to Clinical Medicine's biostatistics/epidemiology curriculum and a new required third-year course, Topics in Clinical Medicine. Also, concerns about unnecessary redundancies in lectures detailed in student feedback on the EPC course evaluations were responsible for the original discussions with second year course directors about a more integrated and less redundant second year curriculum (pilot year, AY 2011-2012).

c. Describe how the monitoring of curriculum content is used to support horizontal and vertical curriculum integration (e.g., through longitudinal content themes).

The two task forces and the Curriculum Implementation Committee conducted in-depth analyses of both the UofL medical student curriculum and the curricula at our benchmark institutions. Of the recommendations that resulted from these analyses, several recommendations involved horizontal and vertical integration (Appendix ED-9.c*4). For example, the following recommendations focus on horizontal integration: 1) Implement weekly coordinated integrative learning sessions involving multiple courses; 2) appoint a clinical faculty member (neonatologist) to direct the Embryology course and schedule at the same time as Gross Anatomy to maximize correlation between the two courses; and 3) continue to develop and implement a more "hybrid" curriculum structure including more integrated components as well as some traditional departmental course elements. Recommendations # 1 and # 2 have been implemented; recommendation # 3 is being discussed by the EPC's Curriculum Management Committee. The following recommendations focus on vertical integration: 1) merge second-year Genetics and first-year Biochemistry courses; 2) increase clinical components and content of the first-year Neuroscience course; and 3) ensure appropriate integration of basic science content into formal case-based teaching in the clinical clerkships. Recommendation # 1 has been implemented; recommendation # 2 will be discussed with the course director after a focus group has been conducted by OME staff with students who took the course in AY 2011-2012; and recommendation # 3 is being discussed by the Clinical Curriculum Committee and is being piloted in the Pediatrics clerkship and the Obstetrics and Gynecology clerkship.

In addition to the work of the task forces and the CIC, the EPC has supported and encouraged horizontal and vertical curriculum integration through the use of curricular threads; for example, the EPC approved a Humanities in Medicine thread, which consists of two required courses, the History of Medicine (first year) and At the Intersection of Medicine and Religion (second year), and an elective in the fourth year (Physicians and the Arts).

d. Illustrate how the curriculum committee would know where in the curriculum “patient safety” and “clinical nutrition” are taught. For example, if there is a curriculum database, provide print-outs of the results of searches for these two topics. If a curriculum database is not used, illustrate the information that is available and describe the sources of the information that can be used to identify the presence of these topics in the curriculum.

Historically, the EPC has relied upon the AAMC’s CURRMIT system to access information about specific topics in the curriculum such as “patient safety” or “clinical nutrition.” However, EPC concerns about the currency of the information loaded into the CURRMIT system resulted in the development of another tool for getting to the curriculum content at the individual learning experience level. For the past few years, we have conducted a search of the student schedule using key terms to access information about specific topics in the curriculum. This approach is used when listserv queries arise that require a response about a topic and to complete the *LCME Annual Medical School Questionnaire Part II*, which contains a question about topic areas in the curriculum. In fact, we have been working on developing a thread in the curriculum on “patient safety” and a review of the excel spreadsheet that details the topics covered in lectures and other learning experiences provided the needs assessment we needed to push forward (Appendix ED-37.d*1). The OME and EPC have also used emails to the appropriate course or clerkship directors to identify where in the curriculum a particular topic is being taught. The responses would be tallied and reported to the individuals or entity, for example, the EPC or an external organization seeking information, for example, the SGEA, for their use. This approach was recently used to determine where tobacco cessation counseling is taught in the curriculum.

See also information for standard ED-33.

ED-38. The committee responsible for the curriculum at a medical education program, along with program's administration and leadership, must develop and implement policies regarding the amount of time medical students spend in required activities, including the total number of hours medical students are required to spend in clinical and educational activities during clinical clerkship rotations.

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

a. Describe the means by which the curriculum committee or the relevant subcommittee(s), as well as course and clerkship rotation leaders, monitor the academic and clinical workload of medical students within and across individual courses and clerkship rotations.

The EPC is responsible for the preclinical schedule. As this database was being developed, the schedule was being developed by the course directors with input from the students for each semester (first year) or for the entire year (second year). In 2009, the EPC developed a set of Schedule Guidelines to provide a framework for this process (Appendix ED-5-A.a*2). In 2011, the EPC issued revised the Schedule Guidelines to ensure that course directors had more direction from the EPC regarding EPC schedule priorities. These revised guidelines establish a goal for the percentage of lecture time in courses (50% or less) and encourage the use of non-lecture learning experiences. Once the course directors prepared the proposed schedule, it was sent to the EPC for action. At that point, the EPC used a report prepared by the OME that detailed the total hours and the kinds of learning experiences proposed for each course; this report also provided an historical analysis of these hours (Appendix ED-38.a *1). The EPC used this information when it discussed the proposed first and second year schedules for the next semester. If the report showed that a course or courses was proposing more hours for the course, the EPC Chair would meet with the course director and remind him or her of the EPC policy requiring that any increase in course time required approval by the EPC. The proposed schedule would not be approved until any concerns have been resolved.

An example of how this process helped the EPC monitor the academic workload of medical students within and across individual courses follows: When the AY 2011-12 second year schedule was being developed by the course directors, the number of student contact hours was heavier in some blocks (the year is divided into six week blocks) than in others; when the EPC received a copy of the proposed schedule, it decided that the contact hours needed to be spread more evenly across all blocks (per the new EPC *Schedule Guidelines*) and asked the Director for Preclinical Curriculum and Assessment to work with the second year course directors to revise the proposed second year schedule to respond to the EPC concern. This process resulted in a revised schedule in which the student workload was more evenly distributed throughout the six blocks, and it was this schedule that the EPC ultimately approved.

With the addition of the Director for Preclinical Curriculum and Assessment in place, the responsibility for coordinating the schedule development process has been turned over to her, which is making the building of the preclinical schedule more collaborative, efficient, and compliant with the EPC's schedule guidelines. In addition, having RedMed fully operational will also improve the OME's efforts to produce schedule/learning experiences analysis reports; prior to having RedMed, course directors and the OME would occasionally arrive at different totals for course contact hours, and resolving differences was extremely labor-intensive.

The schedule development and approval process helps to ensure that the student workload in the preclinical years promotes a positive learning environment and experience. For AY 2010-2011, the student workload was as follows: First year schedule: fall semester, 9.3 hrs/wk

lecture; 20 hrs/wk other learning experiences; spring semester, 17.0 hrs/wk lecture; 16.3 hrs/wk other learning experiences; second year schedule: fall semester, 17.3 hrs/wk lecture; 13.0 hrs/wk other learning experiences; spring semester, 14.5 hrs/wk lecture; 11.3 hrs/wk other learning experiences. The EPC anticipates that the new schedule guidelines will have a positive impact on the students' learning experiences and learning environment by further reducing the number of lecture hours per week and by restricting afternoon hours for independent learning activities, labs and standardized patient encounters, and self study.

Another EPC policy that was developed to promote and support the revised schedule guidelines involves a new formula for calculating credit hours which "counts" lecture contact and non-lecture experiences (i.e., independent learning, case-based small groups, and TBL) equally, in contrast with traditional credit hour calculation formulas, which give more weight to lecture hours than other experiences such as labs ([Appendix ED-33.g*2](#)).

All students have opportunities to provide feedback about the student workload through the EPC's course and clerkship evaluation process. The required course and clerkship evaluations are completed anonymously online and students are asked to provide feedback about the strengths and areas for improvement in free writing comment boxes. Any concerns about student workload would be identified during the formal EPC evaluation for each course and clerkship.

b. Describe any policies limiting the amount of scheduled time for medical students in a given week during the preclinical phase of the curriculum.

Several policies limit the amount of scheduled time for medical students in a given week during the preclinical phase of the curriculum. No class or formal educational experience may be scheduled between Noon and 1 PM, the "official" lunch hour. In addition, no class or formal educational experience may be scheduled during Block Examination week, the sixth week of every six-week block (second year only). Finally, the *EPC Schedule Guidelines* contain requirements that effectively limit the amount of time that may be scheduled for medical students in a given week, for example, a) the curriculum for years one and two should be no more than 50% lecture; b) to ensure a balanced schedule, the total number of student content hours each week and each block should be approximately the same; and c) any planned increase in lecture hours must be approved in advance by the EPC (see also our response for ED-33.g.3).

c. Summarize any medical school policies on medical student duty hours, including on-call requirements for clinical rotations. Describe the means by which these policies are disseminated to faculty, residents, and students.

The EPC approved a Duty Hours policy in June 2011 ([Appendix ED-38.c*1](#)) to ensure that students would have the optimum environment in which to learn. The policy includes the following requirements:

1. Duty hours must be limited to 80 hours per week, averaged over a four-week period, inclusive of all in-house call activities.
2. Continuous on-site duty, including in-house call, must not exceed 24 consecutive hours. Students may remain on duty for up to 4 additional hours to participate in didactic activities, transfer care of patients, and maintain continuity of medical and surgical care.
3. Clinical rotations that are scheduled as shift work, such as the emergency medicine elective and night float, will be limited to approximately 12 consecutive hours of patient care. Shifts should be separated by 10 hours between work periods.

4. Students must be provided with 1 day in 7 free from all educational and clinical responsibilities, averaged over a 4-week period, inclusive of call. One day is defined as one continuous 24-hour period free from all clinical, educational, and administrative activities. (see EPC Days Off policy, [Appendix ED-38.c*2](#))
5. Adequate time for rest and personal activities must be provided. This should optimally be a 10- hour time period provided between all daily duty periods and after in-house call.

In addition, in spring 2009 the EPC approved a student absence policy for the clinical years ([Appendix ED-38.c*3](#)) to ensure a centrally coordinated approach that would provide clinical students with specific guidelines for requesting and receiving excused absences. Regarding on-call requirements for clinical rotations, each clerkship develops its own on-call requirements. Students take call in the following clerkships: Psychiatry: three emergency call shifts during the rotation (two weeknight shifts and one weekend shift); Surgery: no more frequently than every fourth night; and Medicine, every fourth day—no more than six days during the 4-week general medicine wards component of the clerkship.

d. Describe the mechanisms by which the effectiveness of duty hours policies is evaluated.

The EPC's Clinical Curriculum Committee meets monthly. Student leaders are members of this committee and any evaluation of duty hours or concerns about the EPC Duty Hours policy would be discussed here and then forwarded to the EPC, if action is required. In addition, we have a Track Captain system, whereby each track in the third year elects a captain, who then attends regular meetings with the Interim Associate Dean for Student Affairs and the Associate Dean for Medical Affairs. Student workload concerns would be raised and addressed at these meeting and, if necessary, brought to the EPC for action by the Interim Associate Dean for Medical Education, who chairs the EPC.

e. Describe the mechanisms that exist for reporting violations of duty hours policies and the steps that are taken after a report of a violation is received.

Violations of duty hours policies would be reported first to the clerkship director or the Interim Associate Dean for Student Affairs/ the Associate Dean for Medical Education through the Track Captain system, one of whom would contact the clerkship director to discuss the possible violation. Violations of duty hours policies occur rarely; however, in one instance, a track captain reported that students at one site were being required by residents to exceed the 80-hour limit. In this case, the then Senior Associate Dean for Student and Academic Affairs (now Interim Dean) met with the clerkship director, who spoke with the residents and the issue was resolved.

See also information for standard ED-5-A and Required Courses and Clerkship Rotations, Part A, items(A.) and (B.).

ED-39. The chief academic officer of a medical education program must be responsible for the conduct and quality of the educational program and for ensuring the adequacy of faculty at all instructional sites.

ED-40. The principal academic officers at each instructional site of a medical education program must be administratively responsible to the program's chief academic officer.

Note: Questions for standards ED-39 through ED-44 should be completed only by medical schools that operate geographically separate instructional sites/campuses, as defined in the instructions for completing the database.

a. List each geographically separate instructional site/campus, its location, and the name and title of the principal academic officer at the site.

Campus	Location	Name and Title of Principal Academic Officer
Trover Campus	Madisonville, KY	William J. Crump, Associate Dean

b. Describe the role of the medical school's chief academic officer in oversight of the conduct and quality of the educational program at all sites. Describe the reporting relationships between the principal academic officer at each geographically separate instructional site/campus, the dean, and the chief academic officer of the medical school, if that individual is someone other than the dean.

Dr. Crump, the Associate Dean for the Trover Campus, and his staff have hands-on oversight of the educational program, and Dr. Crump works closely with students in all Madisonville clerkships and summer programs offered at the Trover Campus. Dr. Crump reports to the Vice Dean for Academic Affairs; they communicate almost daily via email and telephone and meet 8 - 10 times each year either in Louisville or in Madisonville.

c. For each geographically separate instructional site/campus (including the central medical school campus), indicate the average number of students in a given academic year at that site. The total number of students across sites for each academic year should equal the total student enrollment for that year of the medical curriculum.

Campus AY 2010-2011	# of Students in Year One	# of Students in Year Two	# of Students in Year Three	# of Students in Year Four
Main Campus, Louisville, KY	164	161	147	140
Trover Campus, Madisonville, KY	0	0	7	11
Total	164	161	154	151

ED-41. The faculty in each discipline at all instructional sites of a medical education program must be functionally integrated by appropriate administrative mechanisms.

The medical education program should be able to demonstrate the means by which faculty at each instructional site participate in and are held accountable for medical student education that is consistent with the objectives and performance expectations established by the course or clerkship rotation leadership. Mechanisms to achieve functional integration may include regular meetings or electronic communication, periodic visits to all instructional sites by the course or clerkship rotation leadership, and sharing of student assessment data, course or clerkship rotation evaluation data, and other types of feedback regarding faculty performance of their educational responsibilities.

Note: Questions for standards ED-39 through ED-44 should be completed only by medical schools that operate geographically separate instructional sites/campuses, as defined in the instructions for completing the database.

a. Describe the means by which faculty members in each discipline are functionally integrated across instructional sites/campuses to ensure the comparability of educational experiences and of student assessment (e.g., direct reporting lines to the medical school departments, visits by course and/or clerkship rotation directors and administrators, joint faculty meetings, joint planning exercises).

Since some students are at the University of Louisville Trover Campus (ULTC) for years three and four, the efforts to ensure that faculty members in each discipline are functionally integrated across sites to assure comparability of educational experiences and of student evaluation are focused on the clinical clerkship rotations. The Associate Dean for the Trover Campus serves as an active, frequent liaison between Trover faculty and clerkship leadership. With the aid of an ITV HRSA grant, the teleconferencing system was upgraded, which has greatly enhanced the quality of the ITV connection. The Associate Dean or the ULTC Director of Student Affairs attends all of the Clinical Curriculum Committee monthly meetings via teleconference and participates actively. In addition, the Associate Dean communicates regularly with individual clerkship directors about clerkship requirements and learning experiences and meets regularly with the Trover Campus faculty who supervise University of Louisville students, all of whom are gratis University of Louisville faculty in the departments in which they teach. The Associate Dean is also a member of the Educational Policy Committee and attends those meetings twice each month, usually by ITV teleconference, so he is fully informed regarding policies and initiatives that impact third and fourth year students. He also teaches a rural medicine elective that meets monthly in Louisville.

The clerkship directors also travel to Madisonville about every 18 months to meet with the ULTC Associate Dean and his faculty (Appendix ED-41.a*1). When they visit, they also deliver a Grand Rounds and meet with the University of Louisville students. The University of Louisville students in Madisonville have the same syllabi as their classmates at the Louisville campus, and they use the same evaluation form to evaluate each required clerkship to ensure comparability across sites. The standardized patients travel to the Trover Campus to deliver the SP encounters.

The Trover Campus uses the same tools and faculty evaluation system as those used at the Louisville Campus and provides annual individual results to each ULTC faculty. In addition, a longitudinal 12-item iterative faculty development system designed for community-based

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faculty is used (Appendix ED-41.a*2). In addition, the ULTC Associate Dean also de-briefs individual students at the end of each rotation and provides that feedback to ULTC faculty.

b. Describe the means by which faculty at geographically separate instructional sites/campuses are integrated into medical school governance (including membership on relevant committees).

As mentioned in ED-41.a, the ULTC Associate Dean is a member of the Clinical Curriculum Committee and also a member of the Educational Policy Committee. He attends the meetings of both committees regularly. He also meets regularly with the Trover faculty to brief them on main campus educational activities. Because they share clinical patient care and often share lunch together in the Physicians' Lounge, the Associate Dean's communication with Trover Faculty is almost daily. In addition, when course directors visit the Trover Campus, they meet with faculty to discuss the clerkship and answer questions. As this database is being finalized, one of the faculty at the Trover Campus is being considered for membership on the Student Promotions Committee.

See also information for standard ED-8.

ED-42. A medical education program must have a single standard for the promotion and graduation of medical students across all instructional sites.

Note: Questions for standards ED-39 through ED-44 should be completed only by medical schools that operate geographically instructional sites/campuses, as defined in the instructions for completing the database.

a. Describe the means by which the chief academic officer ensures that there is a single standard for promotion and graduation across all instructional sites/campuses.

Promotion and graduation requirements for students at the Trover campus and the Louisville campus are identical.

b. Describe any variations in criteria for the promotion or graduation of medical students at geographically separate instructional sites/campuses of the medical school.

NA

See also information for standard MS-33 in Section IV: Medical Students.

ED-43. A medical education program must assume ultimate responsibility for the selection and assignment of all medical students to all instructional sites or educational tracks. There must be a process whereby a medical student with an appropriate rationale can request an alternative assignment when circumstances allow for it.

A medical education program having multiple instructional sites or distinct educational tracks is responsible for determining the specific instructional site or track for each medical student. That responsibility should not preclude medical students from obtaining alternative assignments if appropriate reasons are given (e.g., demonstrable economic or personal hardship) and if the educational activities and resources involved allow for such reassignment. It is understood, however, that movement among campuses may not be possible (e.g., because the instructional sites may offer different curricular tracks).

Note: Questions for standards ED-39 through ED-44 should be completed only by medical schools that operate geographically separate instructional sites/campuses, as defined in the instructions for completing the database.

a. Describe the means by which students are assigned to the each of the medical school instructional sites/campuses (including the “main campus”).

With the support of the UL/SOM Admissions Committee, a new enrollment process with dedicated admission to the Trover Campus was implemented in August 2005. The dedicated admission allows medical school applicants to self-select the campus of their choice when completing the secondary admissions application. Thus, at the time of submitting their secondary application to UL/SOM, applicants are allowed to select ‘Louisville only,’ ‘Trover Campus only’ or ‘either campus.’ Applicants selecting ‘Trover Campus only’ or ‘either campus’ follow the usual UL/SOM application process, which includes the normal interview day in Louisville. In addition, their applications are reviewed for suitability for Trover Campus placement and they are interviewed by a selection committee during a day-long visit in Madisonville. Successful Trover Campus applicants are offered admission to the UL/SOM with assignment to the Madisonville campus, and upon acceptance they become Trover Rural Track (TRT) students.

b. Describe the process, if any, whereby a student can appeal an initial assignment to a specific instructional site/campus or subsequently request a change in site/campus. Note any circumstances in which decisions about student selection and assignment are not made by the parent school.

Students may request a change of campus assignment based upon hardship by making the request in writing to the Interim Associate Dean for Student Affairs in Louisville. Upon receipt of the written request, the Interim Associate Dean for Student Affairs would confer with the Trover Campus Associate Dean who would provide his recommendation regarding the student’s request for a change in campus assignment. Final authority for the decision to grant the student’s request resides with the UL/SOM Interim Associate Dean for Student Affairs. If the request to change campus assignment is granted, it is with the understanding that a “body swap” between the two campuses is the most desired approach. This requirement is explained to applicants prior to their dedicated admission to the Trover Campus. If no other student is identified to fill the vacated campus assignment, the Interim Associate Dean for Student Affairs may deny the campus change assignment or waive the “body swap”

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requirement depending upon the needs of the individual student and the effect on the class size at each campus.

ED-44. In a medical education program, medical students assigned to each instructional site should have the same rights and receive the same support services.

Note: Questions for standards ED-39 through ED-44 should be completed only by medical schools that operate geographically separate instructional sites/campuses, as defined in the instructions for completing the database.

a. Describe the means by which the medical school ensures that students, regardless of instructional site/campus assignment, have the same rights and support services (e.g., financial aid, health services, personal counseling, career counseling, academic support).

Student Affairs

The policy of the Trover Campus is to provide comparable services in Madisonville to those that the students receive in Louisville.

The Trover Campus maintains an Office of Student Affairs consisting of a full-time director and an administrative assistant. The Director communicates with the Louisville-based office to ensure comparable support services are provided in Madisonville. The Madisonville-based Office of Student Affairs assists Trover Campus students with career counseling, match issues, and completing ERAS requirements. Where appropriate, Madisonville-based students are assisted with learning disability evaluations and appropriate interventions. All of these activities are arranged in consultation with Louisville-based staff.

Most administrative issues faced by Madisonville-based students can be resolved by contacting the appropriate Louisville staff. In the event travel to Louisville is required to attend to administrative issues, students are reimbursed for mileage and lodging (if applicable).

Communication between the two campuses is conducted via telephone, e-mail, interactive televideo connections and, when necessary, on-site visits.

The Louisville-based Interim Associate Dean for Student Affairs comes to Madisonville or schedules individual meetings by ITV or in Louisville each spring to begin the Dean's MSPE letter process with Trover Campus students. Additional visits are made as needed. Both Madisonville-based and Louisville-based Student Affairs staff are available to address any administrative issues.

Financial Aid

Madisonville-based students receive a Loman C. Trover, M.D. Rural Scholarship for each of the two years they are in attendance at the Trover Campus.

Madisonville-based students receive the same support as on-campus students and are assisted in communicating with the ULSOM Office of Financial Aid as needed. The Trover Campus Director of Student Affairs communicates with UofL on behalf of student financial aid issues, and most administrative issues are resolved via e-mail/fax and telephone. Financial aid exit interviews with M-4s are also conducted in Madisonville by the Director of Medical School Financial Aid via an Interactive TV connection.

Student Health

The policy of the Madisonville-campus is to provide the same level of services

provided in Louisville. The School of Medicine Medical Director of Student Health Services and the Insurance Ombudsman provide support and guidance in achieving the same level of services for the Madisonville-based students. The U of L's health insurance provider considers all Trover physicians as in-network providers. Thus, Madisonville-based students may visit any Trover physician and receive the same level of insurance coverage as Louisville-based students. The ability to see any Trover physician allows Madisonville students to seek care from providers with no student learners present. Comparable health care coverage for Louisville-based and Madisonville based students is accomplished by communicating on a case-by-case basis with the SOM Insurance Ombudsman to confirm coverage. Students who are seen by a Trover physician receive a bill. Services that Louisville-based students receive at no charge or at a reduced rate are written off by Trover Health System in Madisonville at the same rate up to a total of \$500 per student. The Trover Campus program pays Louisville-comparable charges exceeding \$500. The SOM policy for faculty not being involved in evaluating students who have received "sensitive" healthcare from them is enforced at the Madisonville Campus ([Appendix MS-26/27-A.b*1](#))

Pharmacy

Madisonville-based students access the same reduced rates from pharmacies as the students in Louisville. Local pharmacies such as CVS and Kroger accept the UL/SOM health insurance pharmacy schedule.

Physical Fitness Services

Louisville-based students have access to physical fitness facilities provided by the University. The Trover Campus purchases yearly memberships at the Madisonville YMCA or the Trover Sports Fitness facility for each student. Family memberships are purchased where appropriate.

b. Indicate any student services for which personnel are available only at the main campus of the medical school or parent university and the methods by which students are able to obtain access to those individuals and the services that they provide (e.g., by email, teleconference, travel by the student to the main campus, or travel by medical school personnel to the campus).

Mental Health Services

Students in need of assistance in dealing with learning style or mental health issues are first offered the opportunity to meet with their primary physician or a licensed psychologist in Madisonville. In the event the local psychologist or physician feels the student needs assessment/counseling beyond that available locally, students are referred to the UL/SOM Student Affairs Office counselors in Louisville. Students who use these Louisville-based services are reimbursed for travel and lodging costs. While not utilized to date, email, teleconference and Interactive TV resources are available to the students and the Louisville-based counselors should they desire to use them.

Also see Independent Student Analysis.

NOTE THAT STANDARD ED-45 HAS BEEN DELETED.

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

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

a. Check all indicators used by the medical school to evaluate educational program effectiveness:

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)
X	Student responses on AAMC GQ or the AAMC CGQ
X	Student evaluation of courses and clerkship rotations
X	Student advancement and graduation rates
X	NRMP match results or CARMS match results for Canadian medical Schools
X	Specialty choices of graduates
X	Assessment of residency performance of graduates
	Licensure rates of graduates
	Specialty certification rates
X	Practice locations of graduates
	Practice types of graduates
X	University of Louisville Institutional Effectiveness Survey
X	“Assessment of Student Learning Outcomes”

For each checked item, indicate

- i. The means by which the data are collected (including response rates for questionnaires).
- ii. The groups or individuals that review the data (e.g., curriculum committee, department chairs) and the frequency with which the reviews occur.

Results of USMLE/MCC or other national examinations (annual review)

- i. Collected from website by the Senior Academic Coordinator in the Office of Medical Student Affairs (MSA); compiled in student database by Office of Medical Education (OME) staff
- ii. Data reviewed by OME staff, the EPC and its advisory committees, the EAC, Special Programs, the Dean, and other relevant departments

Student scores on internally developed examinations (annual review)

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- i. Collected after examinations by Medical Student Affairs staff
- ii. Reviewed by individual course directors and course faculty, Medical Student Affairs staff, EPC, OME, and each student's Advisory Dean

Performance-based assessment of clinical skills (e.g., OSCEs) (annual review)

- i. Collected and compiled by ICM and SP clinic staff
- ii. Reviewed by OME, Medical Student Affairs, ICM, and EPC

Student responses on AAMC GQ or the AAMC CGQ (annual review)

Response rate, AY 2010-2011: 130/137

- i. Collected and compiled by AAMC and reported to school
- ii. Reviewed by Dean, Vice Dean for Academic Affairs, OME, EPC, EAC, course and clerkship directors; reported to Medical Council, Academic Affairs Group, Faculty Forum, and Department Chairs.

Student evaluation of courses and clerkship rotations (annual review)

Average response rates, AY 2010-2011: First Year Courses, 81%; Second Year Courses, 87%; Third Year Courses, 82%

- i. Collected via web-based system by the Director of Curriculum Research and Evaluation staff in OME, who compile individual course and clerkship reports
- ii. Reviewed by individual course and clerkship directors and faculty, departments/department chairs, and EPC.

Student advancement and graduation rates (annual review)

- i. Collected and compiled in student database by OME staff
- ii. Reviewed by Vice Dean for Academic Affairs, MSA, Admissions, Special Programs, and EPC

NRMP match results or CARMS match results for Canadian medical schools (annual review)

- i. Collected and compiled by Medical Student Affairs staff
- ii. Reviewed by administration, MSA, EPC, and clinical departments

Specialty choices of graduates (annual review)

- i. Collected and compiled by MSA and OME staff
- ii. Reviewed by administration, admissions, MSA, EPC, and clinical departments

Assessment of residency performance of graduates

- i. Collected every three years by University Institutional Effectiveness unit survey, sent to residency directors outside UofL whose programs have two or more residents who

graduated from UofL over the past five years (last survey conducted in 2012; Appendix ED-46.a*1).

ii. Reviewed by Administration; feedback provided to EPC and clinical departments and used for feedback to clerkships to shape our focus on transition to residency in 4th year curriculum

Practice locations of graduates

i. Collected annually from AMA-generated reports obtained through Acxiom

ii. Reviewed by Administration; feedback provided to Admissions, MSA, EPC, clinical departments, and Physician Placement Program and used primarily to adjust the exposure of our students to practice options, and, at times, to change curricular content

University of Louisville Institutional Effectiveness Survey: In late 1998, the University decided to make a major effort in satisfaction and quality measurement as an approach to continuous quality improvement. A University-wide committee (including Dr. David Wiegman, Vice Dean for Academic Affairs in the School of Medicine) developed the approach and put out an RFP. In early 1999, Dey Systems, Inc. (now Deyta, Inc.) was selected. Beginning in mid-1999, Deyta began to work with the University, including the School of Medicine, to develop the survey instruments. Deyta brought technical expertise to the overall process, but considerable consultation time from the School of Medicine was required to focus and refine the questionnaires. The final product was six separate questionnaires focusing on the M.D. program. The questionnaires are: #1) ongoing students, i.e. students in the first two years of medical school, #2) graduating students, #3) former students, which was defined as students three years beyond graduation from medical school, #4) alumni who have been in practice for about ten years, #5) medical school faculty, and #6) residency directors (outside of the University of Louisville) who have had our former students in their programs. The first section in the “Measures of Student Outcomes” (light blue binder) contains the survey instruments used and analyses of the data obtained in response to the surveys. For most categories surveyed, the return rate has been modest. This, of course, limits our ability to interpret the data, but they have still been useful.

“Affinity Diagram” (Assessment of Student Learning Outcomes): Since 1998, the University began a new approach for looking at student outcomes. This methodology is sometimes referred to as an “affinity diagram.” The School of Medicine played the leading role in the development of this approach. The affinity diagram for the School of Medicine (see the last section in the “Measures of Student Outcomes” binder for the most recent version appendix) was developed in late 1998 and early 1999 with extensive input and collaboration. The basic approach was to identify and quantify important student outcomes, and then to identify assessment indicators for measuring each of these outcomes. Additionally, numerical goals were set for each indicator, so that results could be analyzed to determine if the desired outcomes were being met at the level deemed appropriate. In some situations, the goals were set very high to encourage changes in approach and increase in efforts to attempt to meet the goal. In others, the goal was set on the low side. For these it was considered that the current status relative to the particular outcome was satisfactory, but it was also felt to be important to set a base level for the outcome, which would, if not met, trigger action to correct. The results are reviewed at regular intervals (every few months) and, when the goal has not been met, corrective action is considered and appropriate steps are taken to attempt to move toward achieving the goal. Conscientious use of this approach over the last 14 years has been helpful in moving the School of Medicine in the desired direction and decreasing the number of goals not being achieved.

b. Describe the means by which the results of the reviews are used for curriculum evaluation and revision.

The following reviews are used for curriculum evaluation and revision:

Results of USMLE/MCC or other national examination: Reviews of these results have been used to generate or modify board preparation programs and curricular offerings. For example, a review of the Step 2 CS scores prompted changes in the school's Clinical Skills Examinations (CSE 2; CSE 3); a review of Step 1 scores led to an OME initiative that provided each student a voucher to take the NBME Comprehensive Basic Science Examination and changed our approach to instruction in biostatistics/epidemiology.

Student scores on internally developed examinations: Reviews of these scores have been used by course directors to adjust course content and teaching approaches, for example, adding a "key points round up" at the end of a lecture or spending more time on a topic that many students did not understand, as evidenced by examination item analysis; the EPC reviews course and clerkship grades as part of its annual review—in 2009, this review led to a new EPC policy eliminating the use of a "must pass" final examination unless it had been validated.

Performance-based assessment of clinical skills: Reviews of our Clinical Skills Examination 3 (CSE 3) scores resulted in a new EPC policy that required any student who fails CSE 3 to remediate the examination in order to graduate. The EPC then extended this policy to CSE 1 and CSE 2, which are housed in the Introduction to Clinical Medicine course, after discussions with the course director. In addition, EPC reviews of the CSE results have resulted in curricular changes in the clerkships; when the results showed that students were scoring lower on the physical examination skills, the clerkship directors were asked to give greater emphasis to essential PE exam skills in their formal curricula.

Student responses on AAMC Medical School Graduation Questionnaire: Reviews of responses on AAMC Medical School Graduation Questionnaire have resulted in a) creation of new courses, for example, Topics in Clinical Medicine; b) changes in curricular emphases, for example, more time in the curriculum for biostatistics/epidemiology; and major changes in course format and faculty, for example, in Pathology (Appendix ED-46.b*1; Appendix ED-46.b*2).

Student evaluation of courses and clerkship rotations: Reviews of student evaluations of courses and clerkship rotations have resulted in a) changes in the number of teachers in a course (Pathology), b) changes in course grading practices (preclinical courses); and c) changes in clerkship activities (Family Medicine, for example, changed the clerkship schedule of activities and eliminated some required learning experiences).

c. Provide evidence that educational program objectives in the domains of knowledge, skills, behaviors, and attitudes are being achieved.

Knowledge: The reviews of student scores on USMLE Step 1 and Step 2 CK, student performance scores on in-house examinations, and student advancement and graduation rates provide evidence of student mastery of educational objectives in the knowledge domain. For AY 2010-2011, the pass rate for all preclinical courses (first/second years) ranged from 97.6% to 100%; the pass rate for all required clinical clerkship rotations ranged from 96.9% to 100% (some after retake of the exam). That same year, the ultimate pass rate with some retakes for USMLE Step 1 and Step 2 CK were 96% and 100%, respectively.

Skills and Attitudes: The reviews of student scores on USMLE Step 2 CS and on the school's Clinical Skills Examination 3 provide evidence of student mastery of educational objectives in the skills and attitudes domain. For AY 2010-2011, the pass rate on USMLE Step 2 CS was 100%; the pass rate on the school's Clinical Skills Examination 3 Examination was 90% (note: students who fail CSE 3 must remediate but do not re-take the exam; all students completed the remediation and passed Step 2 CS).

d. If available, provide summary data on the performance of the medical school's graduates in the following areas:

- i. USMLE Step 3 or MCCQE Part II: The most recent summary performance data for Step 3 is for the class of 2008: UofL had a 100% pass rate with six students taking the examination more than once. The national pass rate for first time test takers was 95% and for repeat takers 93%; the UofL pass rate for first time test takers was 95% and 100% for repeat takers.
- ii. Graduate medical education (e.g., from surveys of graduates or residency program directors)

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e. Indicate if students at the medical school are required to take or required to pass USMLE Steps 1 and 2. (check)

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

f. Supply graphs provided by the National Board of Medical Examiners that compare the performance of national and medical school first-time takers for USMLE Steps 1 and 2 for the past three academic years.

Please refer to the AAMC reports that follow.

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g. For each of the past three academic years, provide results for REPEAT (not first-time) takers of USMLE Steps 1 and 2.

STEP 1

Year	Number Examined	Percent Passing	Mean Total Score and S.D.		National Mean Total Score and S.D.	
			Score	S.D.	Score	S.D.
2010-2011	6	84%	206	15	198	14
2009-2010	13	54%	190	21	195	16
2008-2009	7	57%	189	9	194	15

STEP 2 CK

Year	Number Examined	Percent Passing	Mean Total Score and S.D.		National Mean Total Score and S.D.	
			Score	S.D.	Score	S.D.
2010-2011	2	100%	209	19	202	14
2009-2010	4	100%	200	13	197	16
2009-2009	3	100%	198	18	197	14

STEP 2 CS

Year	Number Examined	Percent Passing	National Percent Passing
2010-2011	3	100%	98%
2009-2010	10	100%	92%
2008-2009	3	100%	97%

FOR CANADIAN MEDICAL SCHOOLS ONLY:

d. Attach the summary table (Dean's Report: Section II) of student performance on the MCCQE Part I for each of the past three academic years; include the percentage of students passing.

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

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

It is expected that the medical education program will have a formal process to collect and use information from medical students on the quality of courses and clerkship rotations. The process could include such measures as questionnaires (written or online), other structured data collection tools, focus groups, peer review, and external evaluation.

a. Summarize the means by which information is collected from students on course and clerkship rotation quality. Include the methods that are used (e.g., questionnaires, focus groups) and average response rates.

Information is collected from students on course and clerkship rotation quality through the EPC required course and clerkship evaluation survey that students must complete at the end of each required course or clerkship rotation (Appendices ED-25.a*1 and ED-35.b*2). This survey instrument contains specific questions about course or clerkship components, for example, the availability of the course or clerkship director and the relationship between course or clerkship activities and the goals as outlined in the syllabus, as well as two questions that ask students to rate the “overall teaching” and the “overall quality” of the course or clerkship rotation. On rare occasions, the OME has conducted focus groups with students when the EPC has needed additional in depth feedback from students about a particular course. This occurred in AY 2009 – 2010 for the Pathology course, and the EPC was able to use the results of the focus groups to supplement and provide additional insights into the results of the student evaluations (Appendix ED-47.a*1).

b. Describe if evaluation data are being collected on faculty, residents, and others who provide teaching or supervision in required courses and clerkship rotations.

Evaluation data are being collected on faculty and residents who provide teaching or supervision in required courses and clerkship rotations through the EPC required course and clerkship evaluations that students complete. These evaluation instruments contain questions on aspects of teaching, for example, the teacher-learner relationship in general; the overall teaching in the course or clerkship; and questions about individual faculty members from whom the student received instruction (Appendices ED-35. b*2). In addition, the questionnaire contains five questions about the residents as teachers, for example, “the residents on this clerkship were effective in teaching procedures.” These evaluations are completed by students at the end of each required course and clinical clerkship rotation; students receive an email reminder (or several) and submit the evaluations online. The course evaluation website remains “open” for 2-3 weeks after each course and clerkship ends. Once the evaluation is “closed,” the OME Director for Curriculum Research and Evaluation and her staff produce an aggregate report and email it to the course or clerkship director; the department chair and the Associate Dean for Medical Education also have access to the report. The Director for Curriculum Research and Evaluation also emails each faculty member who was evaluated in a course or clerkship a link to his or her results. Individual residents are evaluated by students by each of the required clinical clerkships (Appendix ED-24.b*2).

c. Describe any other individuals or groups providing information about course and clerkship rotation quality or the quality of faculty teaching (e.g., through peer assessment of teaching or course content).

All of the departments must have a formal colleague evaluation system as part of the department’s

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annual performance review. Thus, all faculty are observed by their peers and receive feedback. The results of these peer evaluations are used by the department for the annual performance review and for advancement processes; however, they are not part of the EPC's annual review of courses and clerkships.

See also information for ED-35.

END OF SECTION II

SECTION III. MEDICAL STUDENTS

Part A: Key Quantitative Indicators

Complete the following tables, using the medical school's copy of the Longitudinal Statistical Summary Report (LSSR) as the data source, when relevant: Update to include 2010-2011 data, when available.

a. **Mean MCAT scores** for NEW (not repeating) first-year medical students:

	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12
Verbal Reasoning	9.40	9.30	9.70	9.50	9.50	9.70	9.90
Physical Sciences	9.20	9.00	9.50	9.40	9.50	9.40	9.30
Biological Sciences	9.80	9.50	10.00	10.00	10.20	10.00	10.00
Writing Sample (Mode)	O	Q	M	M	Q	Q	Q

b. **Mean overall premedical GPA** for NEW (not repeating) first-year medical students:

	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12
Mean overall GPA	3.55	3.45	3.57	3.61	3.63	3.53	3.53

c. The number of admission **applications considered by the admissions committee, applicants interviewed, acceptances issued, and medical students newly matriculated** for their first year of study; do not include first-year students repeating the year.

	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12
Applications	1,660	1,805	2,194	2,348	2,492	2,678	2,876
Interviews	324	323	369	386	384	422	444
Acceptances	244	262	247	259	254	268	292
Matriculants	149	149	148	155	160	160	160

Complete the following tables, using the medical school's copy of the Longitudinal Statistical Summary Report (LSSR) as the data source, when relevant: Update to include 2010-2011 data, when available.

d. The total number of **enrolled medical students** in the first-year class and in the total student body:

	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12
First Year	159	155	156	157	163	164	164
Total	593	596	597	588	624	630	643

e. The percentage of first-year medical students and the percentage of all **students who withdrew or were dismissed** from the medical school:

	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12
First-year class	1.3	1.9	1.9	0.6	3.0	1.2	0.0
All classes	1.3	1.2	1.0	0.7	1.0	1.1	0.6

f. The percentage of participating medical **students initially matched** (i.e., who did not enter the “scramble”/Supplemental Offer and Acceptance Program) to PGY-1 programs in the NRMP:

	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12
% Initially Matched	97	88	94	89	94	93	97

g. The total **tuition and fees** for entering in-state/in-province and out-of-state/out-of-province medical students:

	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12
In-state/ In-province	18,645	20,991	23,079	25,103	26,329	28,387	30,055
Out-of-state/ Out-of-province	41,011	43,355	43,425	43,425	43,425	43,425	45,955

Includes \$500 technology fee & \$105 HSC health fee

h. The **average educational indebtedness** of all medical student graduates with educational debt and the percentage of graduates with indebtedness in excess of \$200,000

	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12
Average debt	111,999	124,604	135,354	144,399	141,570	158,439	129,657
% graduates > \$200,000	3.9%	3.8%	9.9%	14%	4.3%	8.9%	14.1%

Average debt figures include undergraduate debt & medical school debt.

SECTION III. MEDICAL STUDENTS

Part B: Narrative Data and Tables

MS-1. Through its requirements for admission, a medical education program should encourage potential applicants to acquire a broad undergraduate education, including study of the humanities, the natural sciences, and the social sciences.

Ordinarily, four years of undergraduate education are necessary to prepare for entrance into an M.D. degree program. However, some special programs (e.g., combined baccalaureate-M.D. programs) may permit a reduction in this time period. A broad-based undergraduate education is increasingly important for the development of physician competencies outside of the scientific knowledge domain. (Approved by the LCME October 2010)

MS-2. A medical education program should restrict its premedical course requirements to those deemed essential preparation for successful completion of its curriculum.

a. List all college courses or subjects, including associated laboratories, required for admission to the medical school.

Cellular & Molecular Biology with laboratory
Organismic Biology with laboratory
General Chemistry with laboratory (2 semesters)
Organic Chemistry with laboratory (2 semesters)
English (2 semesters)
Physics with lab (2 semesters)
Calculus (1 semester or 2 semesters of other college mathematics)

b. Identify any courses that are recommended, but not required, for admission to the medical school.

Histology
Physiology
Genetics
Biochemistry
Additional college math (for example, statistics)

c. Describe the process by which the medical school determined its premedical course requirements. How often and by whom are premedical course requirements reviewed?

Premedical course requirements were established by the Office of Admissions with input from School of Medicine course directors regarding the academic foundations that allow the most seamless transition to our medical curriculum. Ongoing feedback from faculty and students has also helped establish “recommended, but not required” courses. Requirements were most recently reviewed by the Dean for Admissions in 2010, and were compared to and consistent with regional peers. This information was reviewed at a Dean’s Staff meeting.

MS-3. The faculty of an institution that offers a medical education program must develop criteria, policies, and procedures for the selection of medical students that are readily available to potential and current applicants and their collegiate advisors.

a. Briefly describe the process of medical student selection, beginning with receipt of the initial application forms and proceeding through preliminary screening for receipt of supplementary application materials, selection for an interview, the interview process, acceptance, the formal offer of admission, and matriculation. For each step, describe the means and selection criteria by which decisions are made and identify the individuals or groups involved in making those decisions.

Application Processing

Transmission of applications begins June 1st with the first verified applications being received at the Admissions Office from AMCAS in late June or early July. Software transmissions are performed daily.

The Director of Admissions reviews each applicant's information and makes status determinations in the application processing system based on the academic qualifications and test scores. The following status determinations are made:

“Preliminary Screening Completed and secondary application requested”

- Kentucky applicants with above 3.0 overall GPA and in the sciences (BCPM); minimum MCAT score of 8.
- If overall GPA is above 3.0 and MCAT is below 8, then further evaluation of academics with regard to grade progression over time and our experience with that institution's “grade inflation/deflation” may indicate a minimum level of competitiveness.
- Additional consideration is given if there are other exemplary academic qualifications or disadvantaged status for those with minimum 7.0 MCAT average.
- Out of state candidates who meet or exceed the class average (~9 MCAT average and ~3.5 GPA); additional consideration is given when our past experience suggests that institutional grade inflation from a particular college or university is low, or grade progression over time indicates at least a minimum level of competitiveness.
- Out of state candidates with Kentucky ties evident in the AMCAS application are screened at the level of Kentucky residents. Ties include for example UofL SOM legacy, born in Kentucky, attend a Kentucky undergraduate institution, parent attended UofL, UofL SOM program participant, etc.
- Candidates who assist with meeting UL/SOM mission goals with regard to rural, underrepresented in medicine and combined degree enrollment are screened at the level of Kentucky residents.

“Preliminary Rejected”

- Candidates with MCAT score below 7.0 and overall GPA below 3.0.
- Out of state candidates with MCAT scores below 8.67 and GPA below 3.0.

Secondary Application Processing

After receiving the secondary application with receipt and check/money order, application status in the application process is changed to “*Secondary Application Received.*”

The Director of Admissions reviews the applicant information and schedules applicants for interviews; timing is based primarily on academic competitiveness. If possible, the most competitive candidates are scheduled early in the admission cycle (mid to late August and September); the remaining candidates are subsequently scheduled with those who have similar credentials. The following status changes are made:

“*Selected for interview*” – schedule immediately; exemplary candidates at the beginning of the cycle and all candidates in spring semester of the cycle.

“*Selected for interview – October*”; “excellent” candidates

“*Selected for interview – November*”; “above average” candidates

“*Selected for interview – December*”; “above average” to “good” candidates

“*Selected for interview – January through March*”; “average” to “excellent” candidates whose applications were received late in the cycle

When determining placement in the interview schedule, the Director primarily considers academic credentials, Kentucky residency, potential impact on mission statement, candidate availability, and faculty/committee member requests.

Candidate Consideration

Candidates must have interviewed and all letters must have been received prior to full Committee discussion and consideration. The Admissions Director assigns a pre-med score based on the following scale:

10 - All letters support enthusiastically

9 - All/majority of letters supportive

≤ 8 - Letter(s) contain important information for committee consideration during deliberation

Before the twice monthly full Admissions Committee meeting, the Associate Dean for Admissions and the Director of Admissions review the candidates available for discussion and select potential candidates for consideration. These candidates are reviewed at an Admissions Pre-Committee meeting. This meeting is regularly attended by the Vice Dean for Academic Affairs, Associate Dean for Admissions, Associate Dean for Academic Affairs/Diversity Initiatives the, Director of the Office of Minority and Rural Affairs/Diversity Initiatives and the Director of Medical School Admissions. Admissions Committee members are invited to attend the Pre-Committee meeting as their schedules permit. Coordinators of Dual Degree programs and the Trover Rural track are also welcome to attend at their discretion. The list of candidates to be considered

later in the day is finalized at the Pre-Committee meeting. At the full Admissions Committee meeting candidates are brought for consideration for:

- *Automatic admission* - exemplary academic credential, test scores, and premedical and interview scores.
- *Discussion* - a number of factors are taken into account when selecting candidates for discussion, including but not limited to academic credentials/test scores, timing of interview, request of faculty/committee members, progress toward mission statement goals, etc.
- *Discussion for denial* - No support for candidate at this time; candidate may or may not be brought forward for discussion.

At the full committee meeting candidates are accepted, denied or placed in a hold category. "Hold" is used when following discussion the candidate lacks the votes for admission or it is decided that the candidate should be considered at a future time when the applicant pool would better reflect her/his level of competitiveness.

Criminal Background Check (CBC)

All accepted applicants must consent to and satisfactorily complete a criminal background investigation as a condition of matriculation. Any CBC that registers a positive "hit" is referred to the Criminal History Review Committee (CHRC) for review and action. See [Appendix MS-3.a*1](#) for details of the process.

Currently enrolled students may also be subject to review by the CHRC, if an incident is added to their criminal history. If the CHRC finds significant seriousness to the incident the situation is referred to the Student Promotions Committee for their review and recommendation to the dean.

b. Describe the manner in which the medical school's student selection criteria are published and disseminated to potential and actual applicants, their advisors, and others.

A policy and procedures manual outlining the selection criteria is published annually and distributed to pre-medical advisors in Kentucky and the region and to their students. It is also distributed to tour groups that visit the campus and is mailed out by request to potential applicants. The manual is available in pdf format on the UofL SOM Admissions website [URL](#). Approximately ten campus visits by admissions staff, primarily to colleges and universities in Kentucky and immediately surrounding states, are made annually at the request of the undergraduate schools. Discussions of selection criteria and distribution of the manual are important parts of these visits.

MS-4. The final responsibility for accepting students to a medical school must rest with a formally constituted medical school admission committee. The authority and composition of the committee and the rules for its operation, including voting privileges and the definition of a quorum, must be specified in bylaws or other medical school policies. Faculty members must constitute the majority of voting members at all meetings.

The composition of the medical school admission committee typically reflects the school's mission. The committee may include individuals other than faculty members, including community members and medical students. While individuals other than faculty members may hold voting privileges, they will not, in aggregate, constitute a majority of voting members at any meeting.

MS-7. At a medical education program, the selection of individual medical students for admission must not be influenced by any political or financial factors.

a. Provide a table or list of the current members of the admissions committee, including each member's title and year of appointment to the committee. Identify the current admissions committee chair (name and title). Describe the process by which the chair is selected; the chair's term of service; and the maximum number of terms a chair can serve, if any limit has been set. For all admissions committee members, describe the length of the initial appointment, the opportunities for reappointment, and the maximum length of service, if any.

(A table of current members with requested information follows our response to MS-7.d.).

The Committee is comprised of 25 basic/clinical science faculty members of the medical school, 3 physician community representatives and five student representatives. Three of the student members are elected by their peers and the other two are appointed by the Dean; seven of the faculty members are elected by the faculty. The remaining members are appointed by the Dean based on recommendations from the Associate Dean for Admissions. Committee members serve three-year terms, but can be re-elected or reappointed. The Chair is the Associate Dean for Admissions, who was appointed to the Associate Dean position by the Dean after a search completed according to University policies. There are no limitations on length of service for either members or the Chair.

b. Describe the process by which admissions committee members are trained and prepared for their duties.

The Director of Admissions conducts training sessions with new committee members prior to the beginning of their service. The members are given an overview of the admissions process and ULSOM mission statement, interview form, sample questions, restrictions on questions to ask and other information related to the process.

There is an annual Orientation meeting for the full committee to receive its charge from the Dean and Vice Dean for Academic Affairs and to update them on changes to the process and School of Medicine programs, initiatives and curriculum.

As appropriate, Forensic Review meetings are held to review outcomes related to previously admitted students who experience difficulties with the program. Insights from these meetings are used to guide subsequent admissions discussions and decisions.

c. Describe the source of final authority for admission decisions. Describe the process by which final admission decisions are made and identify the individuals or groups involved in making those decisions. Describe the circumstances surrounding any admissions committee decisions or recommendations that have been overruled or rejected since the last full accreditation survey.

In the past, the Committee made final decisions for almost all applicants. Under previous deans, there were certain categories of applicants who, if admitted by the Committee, were recommended to the Dean for final action. These included transfer students, applicants with advanced standing, applicants with GPAs below 3.05, applicants with average MCAT scores below 7.67, applicants for readmission, and any other applicant whose admission would involve unusual circumstances. Since 2006, two students in these categories who were recommended for admission to the Dean by the Committee were denied: 1) Student A (3.06 overall and 2.48 science GPAs, 26/P MCAT) did not subsequently reapply; 2) Student B (3.13 overall and 2.85 science GPAs, 27Q MCAT) - applied for admission to the 2008 matriculating class (the 3rd application) and was recommended for admission by the Committee. The student had begun a Master of Science program and had a 3.38 preliminary GPA for the initial 11 hours. The Dean denied the admission. The student subsequently completed the MS (GPA 3.68 for 33 hours), was accepted into the class matriculating 2009 and is currently a successful M-4 at UofL.

Recognizing that Standard MS-4 says, "The final responsibilities for accepting students to a medical school must rest with a formally constituted medical school admission committee," the current interim dean ended the practice of referring any applicants to the medical school to her for admission decisions, and the Admissions Committee now has the final responsibility for all applicants. We are currently moving appropriate wording for our *Bylaws and Rules* through the medical school's formal approval process

d. If the medical school sponsors or participates in combined professional degree programs (e.g., M.D.-Ph.D., M.D.-M.P.H.), describe the role of the medical school admissions committee in the initial assessment of and final decision-making about candidates for these programs.

Interested and capable students may apply for dual degree consideration at the time of medical school application. Degrees available include MD/PHD (in one of five basic research areas), MD/MA in Bioethics and Medical Humanities, MD/MPH, MD/MSc in Clinical Investigation Sciences and MD/MBA. Updates from the dual degree programs are part of regular Admission Committee meetings. Combined program candidates are interviewed separately by the admissions committees for both programs in order to determine their suitability for the individual programs. The School of Medicine Admissions Committee's interviews, reviews and selections of candidates interested in dual degrees are conducted in the same way as they are for all other medical school applicants. This is necessary because applicants may be accepted into medical school and subsequently not be selected for the dual degree program.

UNIVERSITY OF LOUISVILLE SCHOOL OF MEDICINE

STUDENT ADMISSIONS COMMITTEE: 2011-2012

CHAIR, STUDENT ADMISSIONS COMMITTEE

STEPHEN F. WHEELER, M.D., (11)

Associate Dean Medical School Admissions
Associate Professor Dept of Family & Geriatric Medicine
(Appointed 3/00)

Seven full time faculty members elected by the Executive Faculty

Basic Science () –Prior Years Served Clinical Science

<p>STEVEN R. ELLIS, PH.D (10) Associate Professor Biochemistry (Term expires 7/12)</p> <p>ANDREW M. ROBERTS, PH.D (16) Associate Professor Physiology & Biophysics (Term expires 7/13)</p>
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<p>SALVATORE BERTOLONE, M.D. (10) Professor Pediatrics (Term expires 7/13)</p> <p>NOLAN BOYD, PH.D (0) Assistant Professor Surgery (Term expires 7/14)</p> <p>ROBERT CAUDILL, M.D. (2) Assistant Professor Psychiatry (Term expires 7/12)</p> <p>MONICA ANN SHAW, M.D. (3) Professor Medicine (Term expires 7/14)</p> <p>ANGELA WETHERTON, M.D. (0) Assistant Professor Family & Geriatric Medicine (Terms expires 7/14)</p>

Three medical students elected by the student body & two appointed by the Dean

CYRITA TAYLOR (0)
ANDREW HIGDON (0)
Second Year Students

SHAKIRA POWELL (1)
RYAN JONES (1)
Third Year Students

DAVID STRICKLAND (2)
Fourth Year Student

Twenty-one members appointed by the Dean

<p>LAURIE BALLEW, M.D. (4) Associate Professor Psychiatry & Behavioral Sciences (Term expires 7/13)</p> <p>SHELDON BOND, M.D. (6) Associate Professor Surgery (Term expires 7/14)</p> <p>LAURA CLARK, M.D. (4) Professor Anesthesiology (Term expires 7/13)</p> <p>STEPHANIE DAILEY, M.D. (3) Community Representative Nephrology (Term expires 7/14)</p> <p>RAFAEL FERNANDEZ-BOTRAN, PH.D (13) Associate Professor Pathology (Term expires 7/13)</p> <p>STEPHANIE GIBSON, M.D. (7) Associate Professor Pathology & Laboratory Medicine (Term expires 7/13)</p> <p>KENNETH HOLTZAPPLE, M.D. (8) Emeritus Professor Family & Geriatric Medicine (Term expires 7/12)</p>

<p>JANET L. HONCHELL, M.D. (12) Community Representative OB/Gyn (Term expires 7/14)</p> <p>STEVE HOUGHLAND (4) Associate Professor Medicine Term expires 7/13)</p> <p>FAYE JONES, M.D. (17) Professor Pediatrics (Term expires 7/12)</p> <p>LOWELL D. KATZ, M.D. (12) Associate Clinical Professor, Gratis Surgery (Term expires 7/14)</p> <p>STEVEN R. MYERS, PH.D (12) Associate Professor Pharmacology & Toxicology (Term expires 7/13)</p> <p>MICHAEL NEEDLEMAN, M.D. (18) Community Representative Family & Geriatric Medicine (Term expires 7/14)</p> <p>RAYMOND ORTHOBER, MD (1) Asst Clinical Professor, Gratis Emergency Medicine (Term expires 7/13)</p>

<p>MICHAEL OSTAPCHUK, M.D. (12) Associate Professor Family & Geriatric Medicine (Term expires 7/14)</p> <p>SHORYE PAYNE, M.D. (4) Community Representative Ophthalmology & Visual Sciences (Term expires 7/13)</p> <p>DONALD L. POMEROY, M.D. (8) Assistant Clinical Professor, Gratis Orthopedic Surgery (Term expires 7/12)</p> <p>VINAY PURI, M.D. (4) Associate Professor Neurology (Term expires 7/13)</p> <p>JIGNESH N. SHAH, M.D (1) Asst. Clinical Professor, Gratis Internal Medicine (Term expires 7/13)</p> <p>CHRISTINA L. TERRELL, M.D. (7) Associate Professor Psychiatry & Behavioral Sciences (Term expires 7/13)</p> <p>DANIEL VARGA, M.D. (16) Assistant Clinical Professor, Gratis Medicine (Term expires 7/12)</p>

MS-5. A medical education program must have a sufficiently large pool of applicants who possess national level qualifications to fill its entering class.

a. Describe the process by which the size of the entering class is determined and identify the individuals or groups involved in making that decision. Does the school have special agreements with external entities within or outside of the U.S. (e.g., international universities, foreign governments) by which some entering students are selected? If so, describe the nature of the agreements and the number of students selected.

The University of Louisville School of Medicine responded to state and national calls for increased numbers of physicians by increasing class size from 149 (class entering 2005) to 160 students for the classes entering 2009, 2010, and 2011. These classes were composed of 120 Kentucky residents and 40 out-of-state residents. In response to concerns expressed by some course/clerkship directors about class size, the entering class for 2012 was decreased to 155 students (120 in-state and 35 out-of state). There are no special agreements with external entities by which some entering students are selected.

b. In the following table, indicate the total number of medical students enrolled in each academic year of the medical curriculum; if there are combined programs (e.g., M.D.-Ph.D., M.D.-M.P.H.), include only those students enrolled in the M.D. portion of the curriculum in the current academic year.

AY 2010-11	First Year	Second Year	Third Year	Fourth Year	Total
Total # of Enrolled Medical Students	164	161	154	151	630

c. If not included in the response to the previous question, provide similar tables of enrollment by curricular year for students in the following categories: (1) students enrolled in a combined baccalaureate-M.D. program and (2) students enrolled in each joint degree program (e.g., M.D.-Ph.D., M.D.-M.P.H.). For this item, include students who are enrolled in, for example, the Ph.D. portion of an M.D.-Ph.D. program in the current academic year.

Note: These numbers are for AY 2010-2011:

MD-PhD in Basic Science

First Year	Second Year	Third Year	Fourth Year	Total
		5		5

*Will enter 3rd year at completion of PhD phase; have passed step one board exam

MD-MBA

First Year	Second Year	Third Year	Fourth Year	Total
1	0	0		1

MD-MPH

First Year	Second Year	Third Year	Fourth Year	Total
0	0	0	0	0

MD-MA

First Year	Second Year	Third Year	Fourth Year	Total
1	1	0	0	2

Academic Year 2010-2011

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

d. If students in combined baccalaureate-M.D. programs or other joint degree programs are not drawn from the same applicant pool as regular medical school applicants, briefly describe the size and characteristics of the applicant pools for each such program.

N/A

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

MS-6. A medical education program must select for admission medical students who possess the intelligence, integrity, and personal and emotional characteristics necessary for them to become effective physicians.

a. Briefly describe the methods used during the admissions process to evaluate and document the personal or professional characteristics of medical school applicants.

Following initial review of the AMCAS application, selected applicants are invited to complete the secondary application. Once all application materials are received, applicants are considered for interview. ULSOM conducts “blind” interviews, which allow committee members to assess candidates without knowledge of their academic performance. The interviews are conducted individually by two committee members, and the various personal factors are rated on a 1-5 scale.

The Interview Summary Form guides ([Appendix MS-6.a*1](#)) the interviewer in evaluating personal traits/characteristics of the candidate (humanitarianism; personality; motivation, dedication, work ethic, and initiative; and overall impression). Each category contains adjectives/descriptors to guide toward a 1-5 numerical rating within the category. Interviewers are also asked to indicate their assessment of the candidate’s likelihood to pursue a generalist specialty, likelihood to practice in rural Kentucky, and some indication of when the candidate should be brought before the full Committee for consideration.

Additional information on personal/professional characteristics is obtained through letters of recommendation. Candidates are required to provide three letters from faculty and are permitted to submit two additional personal letters of recommendation. Most often these letters speak to the character and personal traits of the candidate. The Director of Admissions reviews the letters and assigns a score prior to the Committee meeting. The letters become a part of the student file and are reviewed in detail at the Committee meeting, if necessary.

b. If a standard form is used for applicant interviews, supply a copy of the form and describe the ways in which it is used.

[See Appendix MS-6.a*1](#), See MS-6.a, above for description of how the forms are used.

c. Describe the composition of the pool of individuals who interview medical students, including the total number, student or faculty status, and admissions committee membership. Describe how interviewers who are not members of the admissions committee are selected and trained. Describe how information from applicants that is collected during the interview is considered during the selection process.

All interviewers are members of the Admissions Committee. If necessary, the unexpected absence of a scheduled interviewer is usually addressed by adjustments in the individual interviewers’ schedules. If this is not possible, an experienced Office of Admissions staff member (Director, Associate Dean, Assistant Director) or the Vice Dean for Academic Affairs will fill in. During Admissions Committee meetings, the members who interviewed an applicant share the results of their interviews.

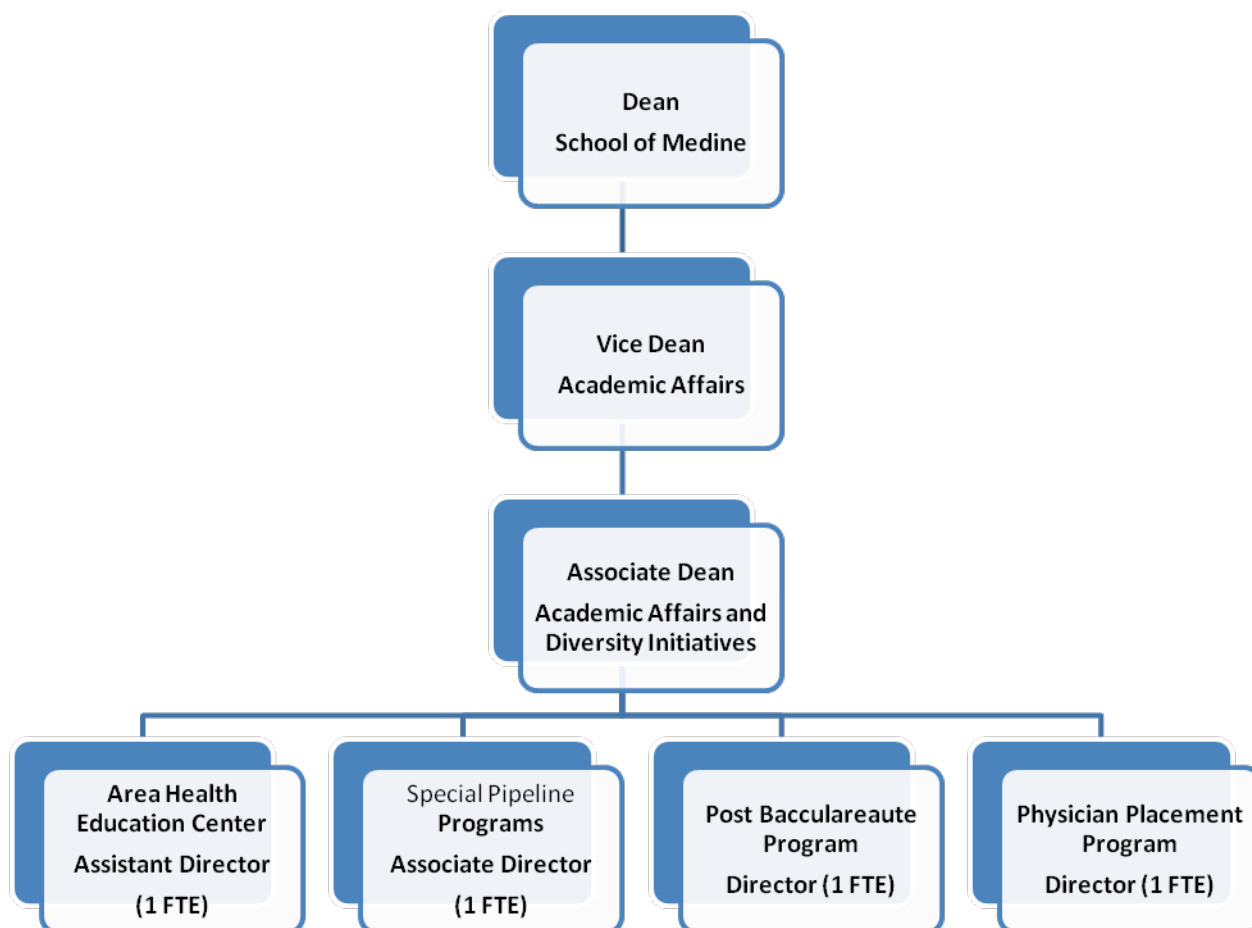
See also Part A, items (a.) and (b.) in this section of the database.

MS-8. A medical education program must develop programs or partnerships aimed at broadening diversity among qualified applicants for medical school admission.

Because graduates of U.S. and Canadian medical schools may practice anywhere in their respective countries, it is expected that an institution that offers a medical education program will recognize its collective responsibility for contributing to the diversity of the profession as a whole. To that end, a medical education program should work within its own institutions and/or collaborate with other institutions to make admission to medical education programs more accessible to potential applicants of diverse backgrounds. Institutions can accomplish that aim through a variety of approaches, including, but not limited to, the development and institutionalization of pipeline programs, collaborations with institutions and organizations that serve students from disadvantaged backgrounds, community service activities that heighten awareness of and interest in the profession, and academic enrichment programs for applicants who may not have taken traditional pre-medical coursework.

a. **Indicate whether the medical school has and/or has access to dedicated resources (e.g., an office, specific staff) for the administration of programs and partnerships to enhance the pool of applicants to medical school, both locally and nationally. If so, describe the organizational locus of the individuals involved in this effort (e.g., in the dean's office, in a university office) and the funding source(s) and time commitment(s) of these individuals.**

The School of Medicine's Office of Minority and Rural Affairs/Diversity Initiatives (Appendix MS-8.a*1) administers programs and partnerships to enhance the pool of applicants to medical school, both locally and nationally. This office is led by the Associate Dean for Academic Affairs and Diversity Initiatives, who reports to the Vice Dean for Academic Affairs. The Associate Dean oversees the programs listed in the flow chart on the next page.



Eleven full-time staff members report to the Associate Dean in various capacities. There are four Directors (ranging from Assistant to Director), two Program Coordinators (1.80 FTE), three full-time Administrative Associates, one full-time Administrative Assistant and one full-time unit business manager. Additional persons are hired during the summer months to assist in staffing summer programs. Funding is provided by the Dean's Office, private foundation grants, state grants and federal grants. Collaboration is maintained with the Offices of Medical Student Affairs, Admissions, Medical Education, and Financial Aid.

b. Describe the major programs in place at the institution that were established to enhance diversity in the pool of well-prepared applicants for admission to medical school, both locally and nationally. For each major program, describe the following:

- i. The type and purpose of the program and the population(s) to which the program is directed
- ii. The length of time the program has been in place
- iii. The program's enrollment data for the three most recent academic years
- iv. The funding source(s) for the program or partnership

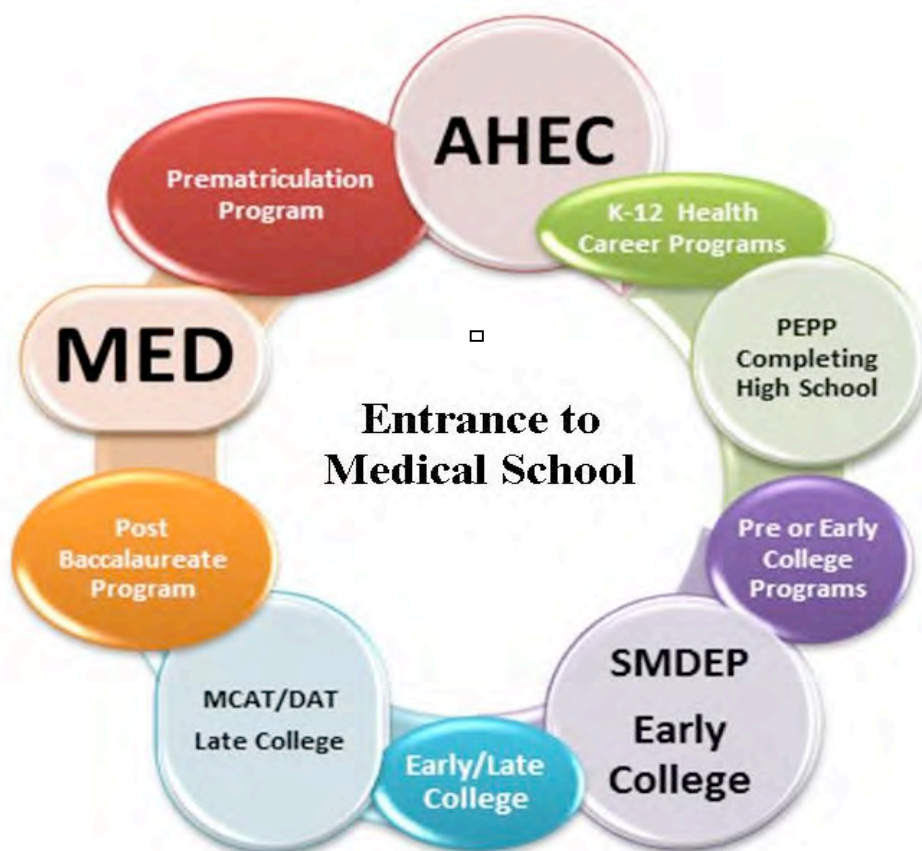
Note: Enrollment data are reported in the table at the end of these program descriptions.

Programs to enhance diversity in the applicant pool have been developed and coordinated in the Office of Minority and Rural Affairs/Diversity Initiatives since 1984. Underrepresented minority, rural, and disadvantaged students in elementary, middle and high schools, colleges, and universities participate in a variety of activities designed to introduce and explore health careers, enhance study skills, and facilitate their entry into undergraduate or professional school. We have strategically put in place programs in each phase of the educational cycle to create a pipeline into medical school and eventually into practice.

- 1) We begin with our Area Health Education Centers (AHEC) Program. The AHEC model began in 1984 at the University of Louisville with a federal grant funded by the Department of Health and Human Services and state funding. During K-12 education, students from populations underrepresented in medicine and rural underserved counties are nurtured and motivated in conjunction with AHEC Office staff to enhance their enjoyment of both learning and applying science and math. AHEC staff introduce young students to health careers, increase their interest in the sciences, and guide them to health career pipeline programs. An example of a more intensive AHEC program is the Health Careers Adventure Program, which began in 1992. It is a four-week summer enrichment program for sixth through twelfth grade students who are considering a health career. Each summer 80 students participate and enhance their academic skills in biology, math, chemistry, reading and writing. They learn about health care and health careers through presentations and field trips with health professionals and professional students to health care facilities. Programs during the academic year, after school, and Saturdays include tutoring, volunteer opportunities and presentations.
- 2) During the summer following high school graduation, Kentucky students from underrepresented racial/ethnic groups and underserved rural geographical areas are encouraged to participate in a four-week, state-funded, residential summer enrichment program – The Professional Education Preparation Program (PEPP). This program, which began in 1981, eases the transition into college while preparing potential medical school applicants to be more competitive. It offers science enrichment, personal development, health-related activities, and health-career exposure.
- 3) The Multicultural Association of Premedical Students (MAPS), formerly the Minority Association of Premedical Students, is an academic support group for college students that motivates, encourages and prepares pre-medical students to become competitive applicants for medical school and other health programs. The Multicultural Association of Premedical Students is the associate chapter of the Student National Medical Association (SNMA). The ultimate goal of MAPS is to produce more competitive health profession applicants and to diversify health professional school enrollment and the health professions workforce. The faculty sponsor is a staff member of the Office of Minority and Rural Affairs/Diversity Initiatives, which is funded through state support. This staff member, as well as other staff, provides academic advising throughout a student's pre-college years, whether or not the student is an active member of MAPS.
- 4) Students from underrepresented, underserved, and disadvantaged populations across the state and country are invited to participate in a six-week residential Summer Medical and Dental Education Program (SMDEP) following the freshman or sophomore year of college. This innovative enrichment program instills in prospective professional school scholars the academic realities of medical education, thus producing a more competitive and highly motivated pool of applicants from the target population. Also, it provides upper-level science exposure, allowing scholars to master a new way of integrating and

applying the basic sciences utilizing team-based clinical applications. Activities focus on academic enrichment, personal growth, and professional development. This program, sponsored by The Robert Wood Johnson Foundation, began in summer 2006, with a dollar-per-dollar match from the University of Louisville.

- 5) Students from groups Underrepresented in Medicine (URMs) or from rural underserved counties, and who are preparing to take the MCAT, are urged to participate in a 4-5 week summer MCAT Preparation Program. In addition to an intense review of academic material, students participate in practice exams, application and admissions discussions, study/test strategy workshops and activities in health care settings. A staff of current professional students is available throughout the program to provide mentoring and advising. This initiative, which began in summer 1982, is funded by the Dean's Office (1/3) and a state grant (2/3).
- 6) The Dean's Office sponsors a Post-baccalaureate Pre-med Certificate Program for students desiring to pursue medicine as a second career. This Post-bac program for career changers began in 2009. Students enrolled in this program receive academic guidance and professional support as they participate in pre-med coursework, MCAT preparation, and enrichment seminars and activities. Time is also devoted to clinical exposure. Students entering the medical class from this program add diversity in educational/career background and workforce maturity.
- 7) In addition to these initiatives, each year three to five minority, rural, or disadvantaged applicants who do not gain acceptance into medical school are invited to participate in the Medical Education Development (MED) program for one year. Students in this program take three first-year medical school courses and selected graduate level courses. They participate in academic development activities during the summer and the following academic year. Upon successfully completing MED program requirements, student are recommended for medical school admission, without repeating the completed medical school courses. Since the MED program began in 1987, approximately 70% of the students have been successful in the MED year and have moved into the first year of medical school. Of these students, 90% have been successful in graduating from medical school. This program is sponsored by the Dean's Office.
- 8) Finally, we offer a five-week summer Prematriculation Program just prior to the start of medical school classes. Participants in this program are invited to participate and come from medically underserved counties, populations underrepresented in medicine, non-traditional age groups, and economically disadvantaged settings. The MED program students also participate. In morning and early afternoon sessions, students participate in lectures, labs, and quizzes focusing on Human Physiology, Medical Biochemistry, Histology, Embryology, Gross Anatomy, and Neurosciences. In mid-afternoon sessions, students participate in workshops on study and test-taking skills, stress management, technology and computer resources, financial management, practice options, and research opportunities. Time is also devoted to clinical activities and health disparity discussions. In addition to academic tips and preparation, this program helps to ease the transition into the professional school environment by providing opportunities for the development of peer study groups; establishment of support systems; dialogue and interaction with faculty, counselors, administrators and upper-level students; and early establishment of daily routines. This initiative, which began in summer 1989, is funded by the Dean's Office.



Note: The following enrollment data represent new program participants for the given years.

PROGRAM	2011	2010	2009
AHEC	1,272* >70,000	65,592	99,147
PEPP	24	23	25
SMDEP	80	80	80
MCAT	35	37	33
POST BAC.	22	18	9
M.E.D.	3	4	3
PREMATRICULATION	24	19	22

* HRSA redefined the way students are counted. Instead of on an individual basis, the count is now based on group activities. The 70,000 is our best estimate of what the number would be using the previous approach.

c. Describe the major partnerships or community relationships in place at the institution that were established to enhance diversity in the pool of well-prepared applicants for admission to medical school, both locally and nationally. For each major partnership, describe the:

- i. Type of partnership or community relationship
- ii. Length of time the partnership or community relationship has been in place
- iii. Frequency of communications and modes of interaction with partners

Central High School

The U of L and Central High School Magnet Career Academy Health Career Connections partnership is an after school career exploration, service-learning, and mentoring program for students in their sophomore year of high school who are interested in pursuing a health career. The intent of this program is to cultivate student interest in and motivation toward health careers, to develop students who will be academically competitive and competent in pre-health studies when matriculating into pre-health college curricula, and to increase student knowledge of broad issues affecting health. Ultimately, this program seeks to increase the number of graduates from Central enrolled in health profession programs at post-secondary, graduate, and professional levels. The partnership has been in development for 9 months and has been implemented for 3 months, with monthly meetings engaging Central staff and students.

Trover Rural Scholars Program

The Office of Minority and Rural Affairs/Diversity Initiatives works closely with the Associate Dean for the Trover Campus with regard to the pipeline programs through our AHEC system and other pipeline initiatives related specifically to the Trover program. These initiatives include the High School Rural Scholars (HSRHS), and the Trover Rural Scholars (TRS) programs. Trover students also may participate in a Summer Prematriculation Program. The HSRHS program provides an opportunity for high school students from rural areas with interest in health careers to gain exposure to health professions as well as improve their chances for success in postsecondary education. The Trover Rural Scholar (TRS) program is for students who are Kentucky residents and are from one of 23 rural western Kentucky counties, who may be most likely to become physicians and return to rural communities. The students are nominated early in college, and those selected become Scholars the following summer. The summer program in Madisonville includes academic enrichment, shadowing physicians, and a series of activities in Rural Health Studies. These Scholars also receive mentoring from current M-3 and M-4 students in Madisonville. The goal is to facilitate academic success for the pre-medical students and provide tangible evidence to a medical school admissions committee that these Scholars have invested time in understanding the practical details of rural practice. Some are nominated for an early admission assurance option to UofL SOM. The Summer Prematriculation Program is a three-week program designed to provide academic, clinical and community medicine exposure for Trover Rural Track students prior to the start of their first year of medical school at UL. Our West AHEC program, which is located in the same vicinity as these programs, maintains weekly contact.

Louisville College Access Network (LouCAN)

LouCAN is a local affiliate of the National College Access Network (under the Kentucky College Access Network) with the mission "to build, strengthen, and empower communities committed to college access and success so that all students, especially those underrepresented in postsecondary education, can achieve their educational dreams." Basically, it is a coalition and a

place to share opportunities. This local coalition holds monthly meetings to improve access to and success in postsecondary education for disadvantaged and underrepresented students and those who are the first generation in their families to attend college. Our involvement dates over the past 10 years. One example of our partnerships with the organization is the Adelante Hispanic Achievers. The School of Medicine Diversity Committee works with the Adelante Hispanic Achievers to introduce Hispanic middle and high school students to health careers. Members of the committee have worked with youth to develop science fair projects and provide mentoring opportunities to broaden their knowledge of the health field. The overarching goal of the partnership is to increase the representation of students of Hispanic ethnicity in health profession programs at post-secondary, graduate, and professional levels. The partnership has been in existence for 2 years. Monthly communication occurs between members of the organization and faculty from the committee.

Gaining Early Awareness and Readiness for Undergraduate Programs (GEAR UP)

The partnership between the Kentucky Council on Postsecondary Education and the Office of Minority and Rural Affairs/Diversity Initiatives has been in place since 2009 with communication occurring at least bimonthly. GEAR UP Kentucky is designed to help 200,000 disadvantaged children prepare for and gain a pathway to undergraduate collegiate programs. The Office of Minority and Rural Affairs/Diversity Initiatives serves as a contact on health career information to designated GEAR UP high schools across the state. GEAR UP also promotes the PEPP Program to high school seniors, thus entering them into our continuous pipeline of programs.

Jefferson Community & Technical College (JCC)

JCC is a local public, comprehensive, postsecondary institution that awards associate degrees. In addition to recruitment and information visits by UofL staff, the chair of the JCC Chemistry Department, serves on the Academic Steering Team for our SMDEP (since 2005) and coordinates and teaches the Chemistry component of our summer pipeline programs. There are monthly planning meetings of the academic team from November through May. Our JCC contact shares information with others at JCC, thus educating students regarding the pipeline programs.

d. Describe the means by which the outcomes of these programs/partnerships are tracked. Provide outcome data for program and partnership participants, indicating those participants who were successful in gaining admission to the medical school, other medical schools, other health professions schools, and other health-related graduate programs.

The SOM utilizes a variety of methods to track student outcomes. Methods include a statewide web-based data management system (Navigator), which was introduced in 2010 in the AHEC program. We are beginning to place all pipeline programs in the database. We also utilize social media, telephone contact, and written communication to track student outcomes.

- i. Provide data for the three most recent academic years if program or partnership participants were undergraduate college students.
- ii. Provide data for the six most recent academic years if program or partnership participants were pre-college students.

Pipeline Program Tracking Process

PROGRAM	PROCESS
PEPP	These students are tracked via regular e-mail, Facebook, and phone follow-up.
SMDEP	The National Program Office is developing a Tracking System that will include all program participants. Data from this system is available to the local sites. However, many alumni self-report their status on a regular basis via phone, e-mail, or Facebook. Data in the table below represent self-reports, most during ongoing advising interactions via e-mail, phone, or Facebook.
MCAT	These students are tracked via regular e-mail, Facebook, and phone follow-up.
M.E.D.	These students remain at U of L and are tracked by the Office of Minority and Rural Affairs/Diversity Initiative (OMRDI) staff.
PREMATRICULATION	These students remain at U of L and are tracked by OMRDI staff.
POST-BAC	These students remain at U of L and are tracked by OMRDI staff.

Outcomes Data: AYs 2008-09, 2009-10, 2010-11

PROGRAM	U of L Medical School	Other Medical School	Other Health Profession	Health- Related Grad School
PEPP***	N/A	N/A	N/A	N/A
SMDEP	36	49	47	11
MCAT	9	8	13	6
M.E.D.	7	0	0	0
PREMATRICULATION	61	0	0	0
POST-BAC**	6	1	2*	0

* Dental School

** 11 students are in the review process for entrance to medical school

*** PEPP: Because we engage this group early in their career decision process, tracking is very challenging. However, this residential academic enrichment and career exploration summer program for Kentucky graduating high school seniors interested in medicine or dentistry equips young scholars to transition into college and helps them to plan for competitive medical or dental school applications. Most students come from medically underserved areas. The underlying premise is that such students are more likely to return to similar areas to practice medicine, thus helping to address health professional shortage areas. Some students remain connected to OMRDI staff via e-mail or Facebook. However, tracking data are not available at this time.

MS-9. A medical education program must develop and publish technical standards for the admission, retention, and graduation of applicants or students with disabilities, in accordance with legal requirements.

Provide a copy of the medical school's technical standards for the admission, retention, and graduation of applicants with disabilities. Describe the means by which the technical standards are disseminated to potential and actual applicants, enrolled medical students, faculty, and others.

The UofL SOM Technical Standards are posted on the UofL SOM Admissions Website <http://louisville.edu/medschool/admissions/medical-school-admissions-policies/technical-standards.html> (See **Appendix MS-9*1** for potential applicants to review. Applicants who are invited to complete the ULSOM secondary application must read the technical standards (a link is provided in the secondary) and indicate if they can meet the technical standards either with or without accommodation.

MS-10. A medical education program's catalog and other informational, advertising, and recruitment materials must present a balanced and accurate representation of the mission and objectives of the program, state the requirements for the M.D. degree and all associated joint degree programs, provide the most recent academic calendar for each curricular option, and describe all required courses and clerkship rotations offered by the program.

MS-11. A medical education program's catalog or other informational materials must enumerate the program's criteria for selecting students for admission and describe the application and admission processes.

a. Provide a copy of the current medical school bulletin or catalog. If a hard-copy catalog is no longer published, indicate the Web site URL for the requested material. Include specific Web site URL(s) that provide information about the requirements for admission to the M.D. program and all associated joint degree programs, the most recent academic calendar for each curricular option, all required courses and clerkship rotations, the medical school's criteria for selecting medical students, and the student selection process. Include printed copies of the relevant Web pages in the Appendix.

See hard copy of School of Medicine Bulletin and also see in pdf version at:

<https://medicalstudentaffairs.louisville.edu/ulsom-2012-2014-bulletin-pdf-version>

Requirements for admission to the MD program and all associated joint degree programs:

See School of Medicine Bulletin, Pages 14-17, Pages 49-50

<http://netapps.louisville.edu/MEDCourseCatalog>

<http://www.louisville.edu/medschool/admissions>

<http://louisville.edu/medschool/mdphd>

<http://louisville.edu/medschool/dualdegree/MD-MA>

<http://louisville.edu/medschool/dualdegree/md-msc>

<http://louisville.edu/medschool/dualdegree/MPH>

<http://louisville.edu/medschool/dualdegree/MBA>

Most recent academic calendar for each curricular option, all required course and clerkship rotations:

<http://louisville.edu/calendars/academic/me.html>

Medical school's criteria for selecting medical students:

See School of Medicine Bulletin, Pages 14-17

Academic Year 2010-2011

<http://netapps.louisville.edu/MEDCourseCatalog>

<http://www.louisville.edu/medschool/admissions>

b. In the Appendix, provide samples of any recruitment or advertising materials related to the medical school that are made available online, in the media, or in hard copy to potential applicants, health professions advisors, or others.

See **Appendix MS-11.b*1.**

MS-12. The resources used by an institution that offers a medical education program to accommodate the requirements of any visiting and transfer medical students must not significantly diminish the resources available to already enrolled medical students.

MS-15. A medical education program should accept a transfer medical student into the final year of a medical education program only in rare and extraordinary personal or educational circumstances.

a. Complete the following table for each of the past three academic years:

Number of: *	Most Recently Completed Academic Year	One Year Prior	Two Years Prior
Transfer students into the second year	1	0	0
Transfer students into the third year	0	0	0
Transfer students into the fourth year	0	0	0
Visiting students taking required clerkship rotations	0	0	0
Visiting students taking elective courses	131	127	88

* These numbers do not include students in the combined MD/Oral Surgery Program. Two students who already have their dental degree are accepted each year. They are admitted and begin the third year of medical school after taking USMLE Step 1. The program is six years long and includes the last two years of medical school, one year of surgery residency (medical school) and three years of oral surgery residency.

b. If the medical school has admitted one or more transfer medical students to the final year of the medical education program during any of the past three academic years, describe the circumstances surrounding the admission decision.

N/A

MS-13. A medical education program must ensure that any potential transfer student demonstrates academic achievements and other relevant characteristics comparable to those of the medical students in the class that he or she would join.

MS-14. A medical education program must ensure that prior coursework taken by a medical student who is accepted for transfer or admission with advanced standing is compatible with the coursework at the level of the program to be entered.

a. Describe the process of selecting transferring medical students or students for admission with advanced standing.

Applications for transfer are accepted from March through May for the next academic year. Applicants must be in good standing at an LCME accredited medical school and be eligible to continue at that school. Applicants must complete an application, which is available in the Admissions Office upon request. A completed residency status form and \$25 processing fee are required. Applicants must provide a letter of support indicating their good standing from the Dean or Dean of Students at the medical school of current enrollment. They must also submit transcripts from all undergraduate and graduate programs. Transfers are generally considered for compassionate reasons, including proximity to a spouse or a change in family status. Personal dissatisfaction with the training, administration or faculty of the original school is not an acceptable reason for transfer. Transfers may be accepted into the beginning of the second or third years, but not into the fourth year or into the midterm of any year. Second year applicants must have completed a curriculum equivalent to the first full year at the current medical school before they are eligible for transfer. Third year applicants must have completed two full years of preclinical study and must have passed USMLE Step 1. If space is available, acceptable transfer applicants are interviewed in June by two Admissions Committee members and presented to the full Admissions Committee for vote. A two-thirds vote of the Committee is necessary for admission to be offered.

b. Describe the process by which the medical school determines whether the academic work and academic achievement of medical students applying for transfer or for admission with advanced standing are equivalent to the academic work and academic achievement of students in the class that they will join.

Transcripts from prior undergraduate, graduate and medical school courses are reviewed by Admissions staff, including the Associate Dean for Admissions. The completed curriculum is compared with the requirements and courses of our School of Medicine. Course descriptions are usually requested from the medical school of current enrollment and reviewed with the appropriate course directors at UofL SOM. The object is to confirm that the prior curriculum and exposures will blend with our curriculum, expectations and environment to assure continued academic and personal success.

c. If any transfer or advanced standing medical students were admitted for the current academic year, complete the following table:

	Mean Under-graduate GPA	Mean MCAT Biological Science Score	Mean MCAT Physical Science Score	Mean MCAT Verbal Reasoning Score	Modal MCAT Writing Sample	Mean Total Score, USMLE Step 1	Mean Total Score, USMLE Step 2 CK
Year 2 transfers							
Second-year class members							
Year 3** transfers	3.60	N/A	N/A	N/A	N/A	203	N/A
Third-year class members	3.63	10	9	10	Q	225	N/A
Year 4 transfers							
Fourth-year class members							

** Two MD/oral maxillofacial students

d. If any transfer medical students were admitted from non-LCME-accredited medical schools since the last full accreditation survey, complete the following table:

NONE ADMITTED

		2005-2006	2006-2007	2007-2008	2008-2009	2009-2010	2010-2011	2011-2012	2012-2013
Year 2 transfers	Number:								
	Source schools:								
Year 3 transfers	Number:								
	Source schools:								
Year 4 transfers	Number:								
	Source schools:								

MS-16. A medical education program should verify the credentials of each visiting medical student, maintain a complete roster of visiting students, approve each visiting student's assignments, and provide a performance assessment for each visiting student.

The institution that offers a medical education program is expected to establish protocols or requirements for health records, immunizations, exposure to infectious agents or environmental hazards, insurance, and liability protection comparable to those for its own enrolled medical students.

MS-17. A medical education program must ensure that any medical student visiting for clinical clerkship rotations and electives demonstrates qualifications comparable to those of the medical students he or she would join in those experiences.

a. Describe the process by which the medical school verifies the credentials of and grants approval for medical students from other medical schools to take clerkship rotations or electives at the institution.

Students from other medical schools are not permitted to take required clerkships at our medical school, only electives. Credentials and approvals are verified by the Program Assistant, Medical Student Affairs. Original documents with the school's seal are used for both Osteopathic and international visiting students. Transcripts must reflect the official school seal and applications must reflect the Dean's signature. All reference letters must be on official school letterhead. All documents for international students are reviewed by Dr. David Wiegman, Associate Vice President for Health Affairs and Vice Dean for Academic Affairs. Domestic students (non-Osteopathic) must submit their application via the Visiting Student Application Service (VSAS) hosted by AAMC. Credential verification and approvals are processed in VSAS with documentation in PDF format. Osteopathic applications are sent as hard copy and verified by the Program Assistant. Department Student Coordinators verify, approve and assess performances on all clerkship rotations both prior to and after being approved at the Department level.

b. Identify the medical school or university staff member who is responsible for maintaining an accurate and current roster of visiting medical students. Describe the information included in the roster and the manner in which it is used.

The Program Assistant in Medical Student Affairs is responsible for maintaining a current, accurate roster of visiting students. The roster information includes the name of the applicant, desired electives, country of origin, application type (domestic, international or Osteopathic), date received, date approved / denied, rotation start date / end date, remarks, email address and application status. A checklist is used to maintain compliance with required letter(s) of recommendation, transcripts, immunization records, personal and malpractice insurance, CV, etc. These are used to verify qualifications for an elective rotation and provide a metric for granting approvals. The roster tracks elective rotation schedules. Once a student arrives, local contact information is added at the department level for emergency contact purposes.

MS-18. A medical education program must have an effective system of academic advising for medical students that integrates the efforts of faculty members, course directors, and student affairs officers with its counseling and tutorial services.

There should be formal mechanisms at the medical education program for medical student mentoring and advocacy at each instructional site. The roles of various participants in the advisory system should be defined and disseminated to all medical students. A medical student should have the option of obtaining advice about academic issues or academic counseling from individuals who have no role in making promotion or assessment decisions about him or her.

a. Describe the elements of the academic advisory system for medical students and how these elements integrate with each other as an effective system. Describe how and when medical students in academic difficulty are identified. Describe the types of assistance available to medical students experiencing academic difficulty, including any assistance available from medical school and other sources (e.g., the parent university).

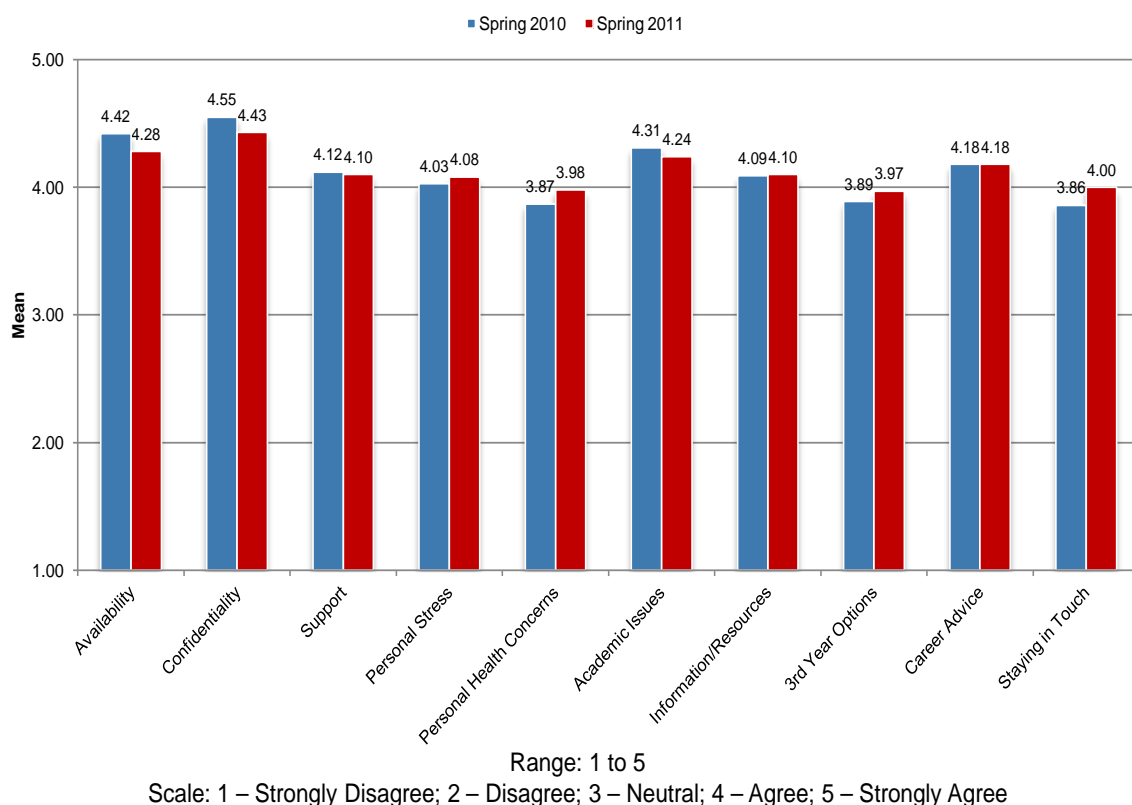
General Academic Advising and Mentoring

Beginning with the 2006-2007 academic year, the medical school began development of a more robust system for tracking students' academic performance. These changes were designed to more quickly identify and support students experiencing academic or personal difficulties, but also helped to provide all students with regular mentoring and support. These significant changes are described below:

Development of an Advisory Dean program (AY 2007-2008). Prior to that time, the advisory system included 40 – 50 advisors with optional student participation and less than half of the students participating. In addition, the quantity and quality of advice were variable and few developed mentoring relationships. That system was eliminated and a new system was developed within the framework of our Unit Lab System. There are twelve unit labs in the instructional building, six on the first floor for second year students and six on the second floor for first year students. The unit labs are located near the first and second year lecture halls; each unit lab consists of a common room with 27 locked three-drawer desks and three small group study rooms each with computers at the back of the lab. Given this facility structure, twelve Advisory Deans (primarily clinicians) were initially chosen to serve as advisor/mentors to a group of approximately thirteen 1st year and thirteen 2nd year students that they would follow throughout medical school. The Advisory Deans are assigned to their respective groups by an Office of Medical Student Affairs staff member who helps them plan both individual and group meetings with their advisees throughout the academic year. The Advisory Deans then follow their students through to graduation; as the program has progressed, each Advisory Dean now has a full contingent of students in all four years. In more recent years, we have doubled the number of Advisory Deans, so as to provide more interaction with smaller groups of students. The Advisory Deans receive salary support from the Dean's Office for their role advising and counseling students. The duties of the Advisory Dean include both individual meetings as well as group meetings with their students. Throughout the year, Advisory Deans advise on the transition into medical school, study techniques, board preparation, interview preparation and skills, specialty choices, etc. The topic of advising depends on the academic status and needs of the student.

Once a semester, Advisory Deans meet with the Interim Associate Dean for Student Affairs and the Office of Medical Student Affairs staff to discuss any changes that may have occurred since their last meeting – i.e. curriculum changes, MATCH process/results, etc. The Advisory Dean system has been very successful and is valued by students, administration and Advisory Deans themselves. All students participate in the program. See the following graph on aggregate qualitative results of student survey.

Aggregate Qualitative Results



Hiring of a full time Counseling Coordinator and a full time Coordinator of Academic Support. Hiring these individuals in 2007 has allowed more issue-specific tracking of students who are experiencing either personal or academic difficulties, or both. The Academic Support staff provides individual and group counseling to assist with time management, test-taking strategies, specific study techniques, assignment of tutors, identification of course-specific materials and USMLE Step 1 preparation activities. The Counseling Coordinator can identify students who are experiencing such personal difficulties as depression, incapacitating anxiety or panic attacks, financial difficulties, lack of family support, or issues with substance abuse. Students are referred to the Counseling Coordinator by course and clerkship directors, Advisory Deans, peers and other Student Affairs staff. The availability of staff with expertise in both of these areas has allowed

for (1) earlier and appropriate referral to one of the staff psychiatrists, which may result in the student being able to continue successfully without a medical leave, and (2) earlier identification of students who may need a medical leave of absence, thus enhancing the opportunity for ultimate success completing the medical school curriculum.

Regular Dissemination of First and Second Year Grades through the Coordinator of Academic Support to the Advisory Deans. Grade assignment is the tracking point at which all interested parties can share resources and insight as to how we can best help students achieve success. During the 2008-2009 academic year, the Coordinator of Academic Support was given access to all course and clerkship grades through the online course Blackboard sites. The Coordinator then began reporting interim results on each major exam to the Advisory Deans, generating regular communication between the Coordinator and the Advisory Deans. The result of this communication is to allow for earlier and more specific appropriate academic support intervention, whether that might be meeting with the Coordinator of Academic Support, Counseling Coordinator, Advisory Dean or course/clerkship director, and sometimes all of these. Access to the course sites also allows the Counseling Coordinator to more quickly identify challenges in the students' schedules from week to week, and to access materials that are being made available to the students by course and clerkship directors.

Assistant Dean for Student Affairs appointed as Chair of the Student Promotions Committee. The enhanced opportunities for early tracking of students freed our Interim Assistant Dean for Student Affairs from the day-to-day monitoring of student progress, and created time to focus attention on the few students who (1) continue to experience difficulty in spite of all attempts to improve, or (2) fail to respond to all efforts to assist them. Students are referred to the Interim Assistant Dean for Student Affairs, who meets with them to be sure the students are aware of the options and resources available to them or to help them prepare for a meeting with the Student Promotions Committee (when students might be dismissed or perhaps allowed to repeat courses, clerkships or an entire year). The work assignment of the Assistant Dean for Student Affairs has been expanded from 10% to 15% to accommodate the growing need for student support. The Assistant Dean does not have a role in writing the MSPE and is the non-voting Chair of the Student Promotions Committee.

Identification of At-Risk Students for Academic Counseling and Support

Before matriculation, a group of admitted students from medically underserved counties, populations underrepresented in medicine, non-traditional age groups, and economically disadvantaged students are invited to participate in the 5-week Prematriculation Program. Typically, 20 or 25 students participate in this program. The program consists of an academically rigorous introduction to 1st year course activities (lecture, lab and clinical activities) as well as informational sessions on test-taking skills, stress management, financial management and research opportunities. Students have the opportunity to develop peer study groups, establish support systems and become acquainted with support staff and course directors at the medical school. At the completion of this program, the Program Director will relay important information to the Coordinator of Academic Support about the students who are expected to need early intervention at the very beginning of the academic year. These students are provided with tutoring assistance even before the first major exam. The Coordinator of Academic Support also alerts the assigned Advisory Dean when such students are identified.

In addition to students who perform poorly in the Summer Prematriculation Program, early academic support is provided to students who are returning from a leave of absence, for any reason, repeating an academic year, or who failed a course the previous year. Students who are

repeating a year or failed a course are placed on academic probation and are entitled to tutoring support at the very beginning of the academic year.

Once school begins, the Coordinator of Academic Support oversees and coordinates the academic support for all students. This includes either direct or indirect (through Advisory Deans) contact with students at the first sign of academic difficulty (usually failure of a test or quiz) to offer tutoring, individual counseling, and referral to other sources of support. Course-specific tutors are provided to students experiencing difficulty at no charge. The expanded tracking program has resulted in parallel expansion of our tutoring program. During the AY 2010-2011, 34 tutors provided 842 hours of assistance. The tutors served 35 students in 1st-yr courses, 44 students in 2nd-yr courses and 4 students in remediation of USMLE Step 1, at a cost of \$16,800 to the school.

Academic Support Activities Provided to All Students

With the institution of the Advisory Dean and Student Wellness programs, efforts to provide academic support to all students have been expanded. In addition to tutoring for at-risk students, Student Affairs has, during the last two academic years, paid for weekend reviews in the Gross Anatomy lab for 1st year students and resident-conducted reviews in the Pathology course for second students. The Coordinator of Academic Support has also worked with class officers and student course representatives to provide peer-led tutoring sessions. Before the start of the AY 2010-2011, one of our recent graduates recruited- some 4th year students to conduct several informal “pre-pathology” group sessions, open to all rising 2nd year students. Early comparison of these participants to their peers who did not participate shows positive results. The 4th year students who conducted these sessions are now serving as tutors in the Pathology course. The Coordinator of Academic Support continues to offer fourth year student-facilitated Question Groups to help 2nd year students prepare for Step 1. These groups are open to all students and meet weekly from mid-March for the last six weeks in the academic year. The groups work with question attack on high-quality practice questions and assist each participant with development of a structured study schedule that begins the day school is out and ends on test day. Approximately 75-80% of the class participates in these sessions – both facilitators and student participants report benefits.

a. Describe any programs designed to assist entering medical students who may be at academic risk in adapting to the academic and personal demands of medical school.

The Office of Minority and Rural Affairs/Diversity Initiatives provides programs to assist entering students who may be at risk in adapting to the academic and personal demands of medical school. The SOM has developed programs to assist at-risk students become successful. Two programs, Medical Education Development (MED) and the Prematriculation Program provide academic enrichment to entering students. A description of these programs is provided in MS-8.b.iv.

Once admitted to medical school, individual and group counseling is provided by staff of the Office for Minority and Rural Affairs/Diversity Initiatives and Office of Medical Student Affairs to students who participated in the programs. Working closely with the Office of Medical Student Affairs, students are closely monitored and counseled to ensure early intervention.

Continuous collaboration is maintained between staff of the Office of Minority and Rural Affairs/Diversity Initiatives and course directors after each assessment to identify students who may develop academic difficulty. Staff from the Office of Minority and Rural Affairs/Diversity

Initiatives and the Office of Medical Student Affairs work together to arrange tutoring for students who need help. Each year, some 10 of 40 students use the tutoring services. All MED students are required to attend tutoring services their 1st and 2nd years of medical school. Periodic follow-up continues during clinical rotations through face-to-face contact, e-mail and telephone. The staff also works with students who may have difficulty with social or mental health issues. The majority of students seek out the staff to provide updates on their adjustment or to have more in depth conversation and/or guidance.

Also contributing to student well-being is the Student National Medical Association (SNMA). Students are encouraged to participate in activities sponsored by the local chapter of the SNMA. The SNMA activities allow students from groups underrepresented in medicine (first year through senior) to interact on a regular basis to discuss local and national issues and concerns that impact on their medical education. Staff from the Office of Minority and Rural Affairs/Diversity Initiatives serve as the sponsor and meet monthly with the students.

Intermittently throughout the year, additional programs may be held to celebrate historical events or to bring the students together for social and/or educational events. The Vice Provost for Diversity and International Affairs sponsors events to discuss issues of climate. There are usually open forums that allow students to express their concerns and seek solutions. An event that occurs annually is the SOM African-American graduation reception. This special program is sponsored by the Office of the Dean and celebrates the achievements of the graduating class while also acknowledging the accomplishments of previous graduates with the honor of the keynote address designee. Each of these programs builds morale and fosters relationships among the students, faculty and administration.

b. Complete the following table for AY 2010-2011:

Number of Medical Students Who:	Academic Year 2010-2011				Total
	First	Second	Third	Fourth	
Withdrew or were dismissed	2	1	4	0	7
Transferred to another medical school	0	0	0	0	0
Repeated the entire academic year	1	0	0	0	1
Repeated one or more required courses or clerkship rotations	13	3	4	0	20
Moved to a decelerated curriculum	0	0	0	0	0
Took a leave of absence due to academic problems	0	1	18*	1	20
Took a leave of absence for academic enrichment (including research or a joint degree program)	0	0	2	0	2
Took a leave of absence for personal reasons	2	3	1	2	8

* failure of USMLE Step I (This was an unusual year with a high number of failures.)

c. Estimate the percentage of students who experience significant academic difficulty and undergo remediation (e.g., a decelerated curriculum, a repeated year, a leave of absence), but who continue to struggle academically (i.e., who withdraw or are dismissed for academic reasons).

Based on the index graduation year of 2011, we examined the percentage of students matriculating in 2007 who experienced significant academic difficulty. A total of 12/148 students experienced significant academic difficulty as defined by failing two or more required courses

and repeating a year or being placed on an extended academic leave of absence due to Step 1 failure. Of those 12 students, 4 were dismissed, two for continued course failures while on academic probation and two for multiple Step 1 failures. The remaining eight are on a successful academic trajectory and expected to graduate within the required six-year period. These figures are typical of our experience over the past five years; therefore, our estimate would be that 7-10% of students experience significant difficulty, and 2-4% ultimately withdraw or are dismissed for academic reasons. Additionally, 2-3% of students leave medical school for various personal reasons.

d. Estimate the percentage of a typical entering class that graduates in four years, and provide the overall graduation rate for a typical class.

Four-year Graduation Rate	Overall Graduation Rate
88%	94%

e. Provide data from the AAMC GQ or the AAMC CGQ, the independent student analysis, and/or internal school surveys on student satisfaction with academic advising and counseling services.

The 2011 AAMC GQ indicates 80% of graduating students were satisfied or very satisfied with their level of faculty mentoring (national, 71%). For 2012, the result for UofL was 86% (national, 74%).

Results of the AY 2010-2011 internal survey on the Advisory Dean Program showed that students rated their level of satisfaction with their Advisory Dean as follows:

Availability to meet	4.4
Maintaining Confidentiality	4.6
Offering Support	4.1
Providing Academic Advice	4.3
Providing Career Advice	4.2
Discussing Personal Stress	4.0

Note: Survey questions used a 5-point Likert scale where 1= very dissatisfied and 5= very satisfied

The 2011 AAMC GQ indicates 87% of graduating students were satisfied or very satisfied with personal counseling services provided (national, 70%). For 2012, the result for UofL was 87% (national, 76%).

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

MS-19. A medical education program must have an effective system in place to assist medical students in choosing elective courses, evaluating career options, and applying to residency programs.

a. Describe the medical school's system for career and residency counseling. Provide information on the formal (required) activities that occur for students in each year of the curriculum and the informal activities available to some or all students. Provide a description of the resources available to medical students to support their career investigations, including written and/or online materials, and describe how these materials are used.

Our career-residency counseling team includes the Interim Associate Dean for Student Affairs, the Residency Match Coordinator, Careers in Medicine Liaison, and the Senior Academic Advisor. Advisory Deans, Specialty Specific Advisors and Program Directors are also integral to the team.

Career counseling and preparation are considered strengths of the school. A four-year comprehensive career planning and preparation program exists, with the level of activities increasing from the preclinical to the clinical years. Students receive various written materials to support their activities (Appendix MS-19.a*1) and are oriented to the AAMC Careers in Medicine website, the AMA's FREIDA website and the ERAS website. The AAMC Careers in Medicine (CiM) Program serves as the foundation for the program. The specific activities offered each year follow:

First Year Activities

- CiM small group seminars with Advisory College and Advisory Dean on the first phase of CiM, "Understanding Yourself"
- Lunch & learn session with Interim Associate Dean for Student Affairs on CV building and information about research opportunities, extracurricular and leadership opportunities, and service opportunities (Required)
- Student Interest Club activities

Second Year Activities

- Lunch & learn session with Interim Dean on career opportunities (Required)
- ICC Session on Career Planning (Required)
- Lunch & learn session with Interim Associate Dean for Student Affairs on the Medical Student Performance Evaluation (Required)
- Student Interest Club activities

Third Year Activities

- “Mastering Career Planning” session with Interim Associate Dean to outline key elements of choosing a specialty, followed by specialty specific break-out sessions with Program Directors and Residents from each specialty. (Required)
- Individual student meetings with Interim Dean to discuss CV and career choice (Required)
- Specialty-specific faculty advisor meetings (Required)
- Peer-selected (fourth year student with similar career interest) advising and mentoring
- “After the Match – The Student Perspective” seminar by fourth year student panel with specialty-specific break-out sessions (Required)
- Student Interest Club activities

Fourth Year Activities

- “Mastering the Match” seminar on basic steps, logistics of the Match, writing personal statements, obtaining letters of recommendation and polishing the CV (Required)
- Specialty-specific peer and faculty advising
- Individual application advising with Residency/Match Coordinator (Required)
- Individual personal statement advising with Advisory Deans, the Interim Associate Dean Student Affairs or the Associate Dean for Accreditation
- “Mastering the Interview Process” seminar with student panel discussion (Required)
- Individual “mock” interview practice
- Match Day Celebration

b. Identify the individual(s) primarily responsible for providing guidance to medical students about their intramural and extramural elective choices for each year of the curriculum. Note the role(s) or title(s) (e.g., student affairs dean, college advisor, departmental faculty advisor) of the individual(s) responsible for the formal approval of medical students’ elective courses in each year of the curriculum.

Students receive advice about intramural and extramural elective choices from their Advisory Deans and from the program director and Specialty Specific Advisor for the specialty (or specialties) they plan to pursue. The Senior Academic Coordinator in the

Office of Medical Student Affairs also helps students with elective course selection and away rotations. At the end of third year, each student completes and turns in a schedule form/registrar's form with elective selections to the Office of Medical Student Affairs, and the Senior Academic Coordinator signs off and registers the students.

A revised documentation process is being developed by the Interim Associate Dean for Student Affairs, which will be used beginning July 1, 2013. Students will complete a revised schedule form for fourth year that will require sign-off/approval by the individual who has approved each elective (Advisory Dean, Assistant Dean for Student Affairs, Specialty Specific Advisor, etc.). Once the student has received all of the approvals needed, he or she will submit the completed form to the Office of Medical Student Affairs.

c. Provide data from the AAMC GQ or the AAMC CGQ, the independent student analysis, and/or internal school surveys on student satisfaction with the career advising system and with guidance in the choice of electives.

The 2011 AAMC GQ indicates that 88% of graduating students were satisfied or very satisfied with the career planning services provided (vs. 59% nationally). For 2012, Regarding guidance in the choice of electives and information about specialties, 81% of graduating students were satisfied or very satisfied (vs. 66% nationally).

d. List the principal components of the medical school's system of assessment that are employed in the composition of the formal Medical Student Performance Evaluation (MSPE, for U.S. medical schools) or the Medical Student Performance Record (MSPR, for Canadian medical schools).

1. Identifying information
2. Unique characteristics
3. Academic history
4. Academic progress
 - Preclinical/basic science curriculum
 - Core clinical clerkships and elective rotations
5. Summary

e. Indicate the individual(s) primarily responsible for preparation of the MSPE/MSPR and include two representative examples for recent graduates (redacting all personally identifiable information) in the Appendix.

Students are required to meet one-on-one with the Interim Associate Dean for Student Affairs during their third year. The interview consists of a review of the student's academic history, curriculum vitae, and personal statement. The Administrative Associate in the Office of Medical Student Affairs prepares the academic history and progress. The Interim Associate Dean prepares the unique characteristics section. The administrative associate combines the unique characteristics section with the body of the

letter; the final letter is signed by the Interim Associate Dean. Students have an opportunity to review their letter before it is sent. This review generally occurs during the first two weeks of October.

On the following pages are sample real MSPE letters from fall 2011. (the names have been changed to de-identify) The first student is from the top 10% of the class and the second from the bottom 10%.

Medical Student Performance Evaluation

for

Thomas David Johnson

November 1, 2011

Identifying Information

Thomas David Johnson is a fourth year student at the University of Louisville School of Medicine in Louisville, Kentucky. David is expected to graduate with his M.D. degree on May 12, 2012.

Unique Characteristics

David is a star in every way. He is a brilliant student with a strong work ethic, a delightful personality and an unwavering positive attitude.

David completed his degree in Biology from Vanderbilt University, where he graduated magna cum laude and was also recognized for his leadership and service accomplishments. Fully prepared for the academic rigors of medical school, he was awarded an academic merit scholarship and continued on his path of academic excellence throughout his four years.

Inspired towards scientific inquiry, David made a number of important research, leadership and service contributions. He was selected to participate in the Summer Research Scholars Program and worked with faculty mentors in the area of spinal cord research, presenting his work as an abstract and poster at Research!Louisville.

On a personal note, David is respectful, mature and thoughtful, making him a favorite of peers and faculty alike. Tangible evidence of his commitment to humanism and professionalism is his election to the Gold Humanism Honor Society. Nominated by his peers and selected by faculty and administrators, David was so chosen for his altruism, integrity and excellence. It has been a pleasure to see such an outstanding student also have the necessary humanistic qualities to be a true exemplar.

Academic History and Progress

David matriculated into medical school on August 18, 2008. David successfully completed the basic science curriculum and elective courses, earning Honors in most all of his first and second year courses. His overall score for Step 1 of the USMLE is 264.

Core Clinical Clerkships and Elective Rotations

Third and fourth year rotations are evaluated by written examinations and subjective evaluation of clinical knowledge, skills, attitude, and professionalism. David's record contains the following scores and comments:

PEDIATRIC CLERKSHIP: Final average, 91, Honors; Inpatient – “enjoyed working with David; had great rapport with his patients and their families; worked well with the wards team; oral presentations were concise yet provided appropriate level of detail; written notes improved over the rotation”; Outpatient – “great communication skills; did a great job”; Newborn Nursery – “a pleasure to work with; very engaged; asked great questions; notes and exams were accurate; did a good job of providing anticipatory guidance”; Subspecialty – “excellent student; showed initiative; good grasp of the clinical material; enthusiastic; punctual; additive; performs well, would consider for honors.”

BASIC SURGERY CLERKSHIP: Final average, 91.9, Honors; “good student; very enthusiastic; easy to work with; eager; reliable; motivated; did well; worked well with the team; good work; dependable in the OR; a pleasure to work with; did a good job; always interested; willing to learn; great overall performance.”

PSYCHIATRY CLERKSHIP: Final average, 93, Honors; “worked very well as part of their team and as part of the multi-disciplinary service area; empathic with patients; solid work ethic; above average performance; independent learning; good skill development.”

FAMILY MEDICINE CLERKSHIP: Final average, 94.60, Honors; “involved; engaged; did an excellent job; lot of initiative; clinical skills and knowledge are excellent”; “functioning at first year resident level; one of the most advanced students it has been my pleasure to work with.”

INTERNAL MEDICINE CLERKSHIP: Final average, 95.37, Honors; “good job”; “very capable at the expected level of performance”; “very intelligent; operates at a 4th year medical student level; writes very thorough H&Ps and SOAP notes; his assessment and plans are well developed”; “bright; enthusiastic; outstanding presentations and strong clinical reasoning beyond his years”; “a pleasure to work with David; interested; motivated”; “exceptionally gifted student; remarkable knowledge base and understanding of medical concepts; very outgoing with strong communication skills”; “excellent fund of knowledge for this stage; great ability to draw from basic science and apply to clinical situations; enthusiastically interacts with staff”; “excellent organization and enthusiasm; good knowledge base; a true asset to the team; will make an excellent resident in whatever field he chooses.”

OBSTETRICS, GYNECOLOGY & WOMEN’S HEALTH CLERKSHIP: Final average, 94, Honors; “worked well; among the best, yet; one of the best I have ever seen; helpful; showed interest; great student; worked well with patients; good fund of knowledge.”

MEDICINE/DERMATOLOGY – OFF-CAMPUS: Honors; “excellent fund of knowledge; did an amazing job; excellent work ethic; great to work with.”

MEDICINE/DERMATOLOGY: Honors; “easy to work with; anticipates ways to help to improve efficiency; able to generate very good differentials with outstanding fund of knowledge; eager to participate.”

Summary

David received a number of academic prizes, awards and honors during the preclinical phase of his education and scored a 264 on Step 1 of the USMLE. He continued to excel during the clinical phase of his education as well, earning honors in all his clinical clerkships and glowing remarks from his clinical evaluators, who noted such strengths as his knowledge base, attention to detail, empathy towards patients and initiative. He was inducted into Alpha Omega Alpha Honor Medical Society in his third year and was also nominated by his peers and selected by the HEART Humanism in Medicine Committee for induction into the Gold Humanism Honor Society.

It has been a joy to work with David; he has been a tremendous asset to our student body and I am confident he will do the same for his chosen residency program.

Toni M. Ganzel, M.D., M.B.A.

Senior Associate Dean for Students

and Academic Affairs

/ksh

Medical Student Performance Evaluation

for

John Anthony Doe

November 1, 2011

Identifying Information

John Anthony Doe is a fourth year student at the University of Louisville School of Medicine in Louisville, Kentucky. He is expected to graduate with his M.D. degree on May 12, 2012.

Unique Characteristics

John is a bright young man, with a tremendous work ethic, a passion for helping others and a commitment to excellence in caring for patients.

John entered medical school after graduating cum laude from University of Louisville, where he was a member of the baseball team. John's academic and athletic background certainly afforded him the requisite drive and commitment necessary for medical school. He also became very involved with research in the area of surgical oncology and worked faithfully with his faculty mentor on a number of projects. His efforts resulted in being a first or named author on six publications as well as a number of presentations and posters at local and national meetings.

A multitude of family medical challenges diverted John's attention from the academic demands of the first year of medical school and resulted in his repeating his first year. He did so successfully and the experienced served to strengthen his resolve to pursue his goal of becoming a doctor.

John's genuine spirit of humanism was evidenced by his medical mission trip to Belize, his tutoring efforts for at risk youth at a local community center and his leadership in the Drive Cancer Out educational program for youth smoking cessation.

Academic History and Progress

John matriculated into medical school on August 13, 2007. He did not successfully pass Gross Anatomy and Embryology in the fall and was required to repeat the first year. John did take a short academic leave of absence to prepare for his retake of Step 1. His overall score for Step 1 on his second attempt was 191. During his third year of medical school, he one of his clerkships due to on the shelf exam, but successfully passed the retake.

Core Clinical Clerkships and Elective Rotations

Third and fourth year rotations are evaluated by written examinations and subjective evaluations of clinical knowledge, skills, attitude, and professionalism. John's record contains the following scores and comments:

OBSTETRICS, GYNECOLOGY & WOMEN'S HEALTH CLERKSHIP: Final average, 87; "it was a real pleasure having John on our service; smart; industrious; cheerful; wonderful sense of humor; will do well; solid knowledge base; always eager to help; inquisitive; made an exemplary effort to incorporate his knowledge of material learned in the preclinical years into his clinical rotations; very willing participant; excellent participation; a pleasure to have John on the service."

BASIC SURGERY CLERKSHIP: Final average, 79.2; "did well; very enthusiastic; great member of the team; great bedside manner; thorough H&Ps; leadership potential to be a great intern; hard worker; affable; above average medical knowledge; good job; solid job; interested; eager; reliable; nice talk on colon cancer."

INTERNAL MEDICINE CLERKSHIP: While John's clinical performance was strong, he did not meet the minimum required score on the shelf exam to successfully pass the rotation. He therefore received a deferred grade until the end of the year at which time he repeated the exam and achieved a successful score. Factoring in this new score, his final clerkship average was 89.91. Clinical comments included: "enthusiastic; eager to learn; did an excellent job"; "well prepared for rounds; engaged; actively participated in care of patients; appropriate fund of knowledge"; "will be an excellent physician; did a great job on our service; deserves honors"; "performed very well in this rotation; committed; responsible; did a lot of independent reading"; "enthusiastic to learn; may need improvement in communication skills, overall, fair use of knowledge"; motivated; interested; high marks on professionalism; always wanted to come back and participate on rounds even later in the afternoon; desired feedback; adequate H&P skills; very motivated to improve in all areas; accepted criticism very professionally."

FAMILY MEDICINE CLERKSHIP: Final average, 87.62; "excellent student; one of the best I have had; engages with patients easily; able to keep patients focused; very capable and knowledgeable; should make an excellent clinician"; "did well on this rotation; well liked by staff and residents; good connection with physical exam findings and treatments"; "good job; keep up the great work ethic."

PSYCHIATRY CLERKSHIP: Final average, 85; "well liked by members of the team; presented himself in a professional manner; assumed an appropriate level of care for his patients; verbal presentations and daily progress notes showed good organizational skills; assignments were completed in a timely manner; overall, he had a very good performance on his rotation; demonstrated the potential to be a solid resident; enjoyed working with him."

PEDIATRIC CLERKSHIP: Final average, 88; Inpatient – "great job; worked well as part of wards team; H&P and progress notes are well thought-out; presentations are clear and concise; inquisitive; asks thoughtful questions; great rapport with patients and families"; Outpatient – "overall good job; showed improvement over the course of the rotation with physical exams."

INPATIENT MEDICINE ACTING INTERNSHIP: Pass; "absolutely wonderful medical student; will be a very strong intern; easily working at intern level already; would love if he chose to stay at the IM program at U of L; would be a wonderful asset."

FAMILY & GERIATRIC MEDICINE AMBULATORY ROTATION: Pass; "pleasure to work with; very confident; patients love him; will make a very good clinical physician."

Summary

Academic Year 2010-2011

John's solid intellect, his friendly personality, his enthusiasm for learning and his commendable work ethic have made him an asset to our school and will likewise serve him well as a resident. I am confident he will be a credit to his chosen residency program.

Toni M. Ganzel, M.D., M.B.A.

Senior Associate Dean for Students

and Academic Affairs

/ksh

MS-20. If a medical student at a medical education program is permitted to take electives at another medical education program or institution, there should be a centralized system in the dean's office at the home program to review the proposed extramural electives prior to approval and to ensure the return of a performance assessment by the host program.

a. Describe the process by which medical students' extramural elective choices are screened prior to their being permitted to enroll.

Students who wish to complete extramural electives seek advice about domestic and extramural elective choices from their Advisory Deans and from the Specialty Specific Advisors, who screen the elective choices. The student must secure formal approval from the department's Director of Education. The student then submits a fourth-year schedule form to the Office of Medical Student Affairs and the Senior Academic Coordinator reviews, signs off and registers the students.

Students seeking to take international electives must also seek formal approval from the Vice Dean of Academic Affairs, who gives final approval.

b. Describe the system for collecting performance assessments for medical students completing extramural electives.

Prior to departing, the student must take an Off-Campus Request form (Appendix MS-20.b*1), along with a copy of the course/rotation description, to the appropriate UofL clinical department for approval. The approved form is returned to the Office of Medical Student Affairs; one week prior to the start of the off-campus rotation, a letter and evaluation form (Appendix MS-20.b*2) are mailed to the host institution. Upon receipt of the completed evaluation, a copy is sent to the UofL clinical department, which reviews the assessment and submits a grade to Student Affairs.

See also information for standard MS-19.

MS-21. The process of applying for residency programs at a medical education program should not disrupt the general medical education of its medical students.

A medical education program will develop policies and procedures to minimize the disruption of any required educational or assessment activities of its medical students during the residency application, interview, and match processes.

MS-22. A medical education program should not provide a Medical Student Performance Evaluation/Dean's Letter required for the residency application of a medical student until November 1 of the student's final year.

a. How does the medical school handle potential scheduling conflicts between required academic activities (e.g., fourth-year courses or selectives, examinations) and residency interviews?

Each clinical department develops its own assessment schedule; however, the clerkship directors meet monthly and often use these monthly meetings to discuss common problems related to the schedule. For example, during AY 2010-2011, the new Topics in Clinical Medicine (TCM) course needed time on the schedule and the TCM course director asked the clerkship directors to excuse students from clerkship activities to attend a TCM session. After discussion, the clerkship directors agreed to this request. We experienced some problems with students having conflicts with scheduling residency interviews during this pilot. We have revised the approach and are piloting again this year.

The Educational Policy Committee also works to prevent scheduling conflicts between required academic activities and residency interviews. The *Days Off Policy: Required Clinical Clerkships* was approved in a revised form in June 2009 ([Appendix ED-38.c*2](#)). This policy replaced two earlier policies, *Residency Interviews* policy (originally approved in September 2006) and the *Days Off* policy (originally approved in May 2008). The new policy was implemented in recognition that the third and fourth years of medical school must prepare students for their work as residents by mimicking closely the everyday life of a practicing physician and, at the same time, ensure appropriately for study and relaxation time and a uniform school standard for student absences from required and elective clerkships for such activities as residency interviews and Step 2 CS without compromising a student's capacity to achieve clerkship educational goals. The policy provides for an average of 4 days off for a four-week rotation or an average of one day off per week. The policy must be discussed at any clerkship orientation and is posted to the OME student website and referenced in syllabi. The clerkship, selective, or elective director has the authority to approve additional days off on a case-by-case basis.

b. What is the earliest date for the release or provision of the MSPE/MSPR or other documents supporting applications to residency programs?

The MSPE is released November 1st. Beginning in 2012, however, the release date was moved up to October 1st, in accordance with the new ERAS guidelines.

MS-23. A medical education program must provide its medical students with effective financial aid and debt management counseling.

In providing financial aid services and debt management counseling, the medical education program should alert medical students to the impact of non-educational debt on students' cumulative indebtedness.

a. Provide the name, title, and date of appointment of the financial aid director. Is the position of financial aid director a medical school or university-level position? Is it a full-time or part-time position? To whom does the financial aid director report?

Leslie R. Kaelin
Financial Aid Director
School of Medicine

Full-time School of Medicine appointment (started July 1, 1988)
Reports to Dr. Michael Ostapchuk, Interim Associate Dean for Students.

b. Identify the office(s) and/or individual(s) who provide financial aid services to medical students. Describe the means by which medical students obtain financial aid advice and services when they are at educational sites geographically distant from the location of the financial aid office (e.g., during clinical rotations).

The Financial Aid Office is staffed by one full-time Financial Aid Director and one 80% time Financial Aid Advisor. Students obtain personal service in the conveniently located Financial Aid Office in the Instructional Building, Room B 230, on the Health Sciences Center campus. The office is open from 9 AM to 5 PM, Monday- Friday. Students may schedule appointments; however, because students maintain such busy schedules, financial aid counseling occurs primarily on a "walk-in" basis to make it easier to obtain information or solve student aid problems quickly. Financial aid advice is accessible to students on clinical rotations via phone, fax and e-mail. The website <https://louisville.edu/medschool/medicalstudentaffairs/financial-aid> is also used because most transactions, e.g., accepting aid, verification, signing master promissory notes, are done on-line.

c. Describe the personnel, space, equipment, and other resources available to the financial aid office. Identify any other student groups (e.g., allied health students, graduate students) that are served by the financial aid office. Indicate the number of financial aid staff members who are available specifically to assist medical students. Are the resources available to the financial aid office adequate to allow it to carry out its responsibilities? If not, please explain.

All students have convenient access to the Financial Aid Office because it is located next to the first and second year classrooms and within walking distance of most of the hospitals used for clinical rotations. All students may also complete most financial aid transactions electronically. The office has excellent technical computer support from the main campus financial aid office and continues to develop new online technology to make things easier for students. All students' residual funds are deposited directly to their personal checking accounts via Higher One. Staff members are also accessible by phone, fax or e-mail. The full-time Financial Aid Director and 80% time Financial Aid Advisor serve only medical students, medical graduates/alumni and

medical residents with financial aid matters. The Financial Aid Office has sufficient personnel, space and equipment to carry out its responsibilities.

d. Describe the system for effective counseling of medical students about debt management. When in the curriculum and in what format(s) do debt management counseling sessions occur? Note which of the counseling sessions are optional and which are mandatory. Describe the means by which medical students' questions about debt management are answered. Describe the types of information about debt management (e.g., online, printed) that are available to medical students.

Financial aid and financial planning counseling begin during the recruitment process. Prospective students receive information about the cost of attending UofL and general information about the various types of aid available.

The first financial aid information session is held at Pre-Orientation (the February before matriculation) for admitted students and their families. Average attendance is 90-100 admitted students, plus families. This two-hour financial aid presentation is divided into two parts. The first hour covers cost, average indebtedness, need determination, federal aid programs available and scholarships. The second hour covers the aid process, completing the FAFSA, budgeting, financial planning information and strategies. If accepted students do not attend Pre-Orientation, a packet of information is mailed to them.

After Pre-Orientation, students may schedule individual appointments as needed or call for one-on-one debt management counseling. The students also have access to the Medical School Financial Aid Website for information.

At New Student Orientation August, the Financial Aid Director presents the federally required entrance counseling in a large group setting. Attendance is mandatory. In addition to the entrance counseling, a selected student presents information about the resources on the AAMC website such as the Medloans organizer and calculator, Financial Literacy 101 and FIRST for medical Education. A computer demonstration of these resources is given to students so they can find on-line support on debt management topics and assistance in handling their loans.

After each academic year, indebted students receive individual listings of all student loans taken to that point. They are also informed that they can check their loans anytime at www.nslsds.ed.gov.

Several workshops are presented each year about various topics such as developing a spending plan (budgeting), tips on how to buy a house, buying or leasing a car, and identity theft. Outside professionals are brought in to make the presentations. The sessions are open to all medical students and attendance is optional.

Exit counseling for graduating students takes place after Match Day. Small group sessions are held and all students with federal loans are required to attend. These sessions are highly interactive. Students learn about repayment options, deferment and forbearance options, and loan consolidation; they are encouraged to ask questions about the information. If students are unable to attend one of the small group sessions or they need more individual assistance, they meet with the Director individually.

e. Provide data from the AAMC GQ or the AAMC CGQ, the independent student analysis, and/or internal school surveys on student satisfaction with financial aid counseling and services.

The 2011 AAMC GQ indicates that 83% of graduating students were satisfied or very satisfied with their financial aid services (national, 76%). The 2012 AAMC GQ indicates that 77% of graduating students are satisfied or very satisfied with their financial aid services (national, 79%). Regarding educational debt management counseling, 68% of graduating students were satisfied or very satisfied (national, 64%). For 2012, 71% of UofL graduating students were satisfied or very satisfied (national, 68%).

MS-24. A medical education program should have mechanisms in place to minimize the impact of direct educational expenses on medical student indebtedness.

As key indicators of the medical education program's compliance with this standard, the LCME and the CACMS consider average medical student debt, including the debt of current students and graduates and trends over the past several years; the total number of medical students with scholarship support and average scholarship support per student; the percentage of total financial need supported by institutional and external grants and scholarships; and the presence of activities at the programmatic or institutional levels to enhance scholarship support for medical students. In addition, the LCME and the CACMS will consider the entire range of other activities in which the program could engage (e.g., limiting tuition increases, supporting students in acquiring external financial aid).

a. Provide a copy of the medical school's most recent LCME Part I-B Financial Aid Questionnaire.

See **Appendix MS-24.a*1**

b. Describe current activities at the medical school or the university level to increase the amount and availability of scholarship and grant support for medical students. For example, is there a current fund-raising campaign devoted to increasing scholarship resources? If so, what is the goal of the campaign, its level of success to date, and the timeframe for completion?

Student scholarship support is an ongoing fundraising area. Annual letters are sent to potential donors outlining current School of Medicine needs, one of which is student scholarships. Student testimonies are incorporated as part of this funding request. Recent efforts have resulted in \$325,000 designated for student scholarships.

The school has also developed strategic relationships with the Greater Louisville Medical Society (GLMS) and the Kentucky Medical Association (KMA) Foundation, both of which have been quite supportive in the area of academic merit awards. The GLMS has committed to hosting an annual Scholarship Golf Scramble, the proceeds of which are awarded for needs based scholarships. The first event was held in 2011 and \$20,000 in scholarships was awarded. Plans are currently underway for the 2012 event. The KMA Foundation awards three academic merit awards for the top ranking 1st, 2nd, and 3rd year students of approximately \$1000 each.

The above efforts bring in small donations, but recently our ability to offer major scholarships to recruit and support students has been challenged because of the current tight economic climate, which includes a scholarship endowment that has grown at a much slower rate than tuition increases.

See also information for standard MS-23 and Part A, items (g.) and (h.) in this section of the database.

MS-25. An institution that offers a medical education program must have clear and equitable policies for the refund of a medical student's tuition, fees, and other allowable payments.

“Other allowable payments” may include payments made for health insurance, disability insurance, a parking permit, student housing, and other similar services for which a student may no longer be eligible following withdrawal.

Describe the medical school's policy for refunding tuition and fee payments to medical students who withdraw or are dismissed from enrollment.

Refund/Withdrawal Policy

The effective withdrawal date is the date on which the withdrawal is processed in the Student Records System. This date is used to calculate any applicable tuition reduction. When a student officially withdraws from the University or from any course, or courses, for which hourly tuition rates apply, tuition charges are adjusted according to the Tuition Reduction schedule at: <http://louisville.edu/finance/bursar/tuition>. (Appendix MS-25*1) The full amount of tuition charges for the semester will be due unless the withdrawal occurs during the Tuition Reduction period. Course fees, special fees and laboratory fees are reduced only with 100% tuition reduction.

MS-26. A medical education program must have an effective system of personal counseling for its medical students that includes programs to promote the well-being of medical students and facilitate their adjustment to the physical and emotional demands of medical education.

MS-27-A. The health professionals at a medical education program who provide psychiatric/psychological counseling or other sensitive health services to a medical student must have no involvement in the academic assessment or promotion of the medical student receiving those services.

a. Describe the medical school's system for personal counseling of medical students and comment on its accessibility, confidentiality, and effectiveness. Note especially the individuals available to provide personal counseling and their locations.

COUNSELING SERVICES

MISSION

Counseling Services for Medical Students and Medical Residents has the following mission: To the extent possible with the application of best practices: 1) prevent mortality from suicide; 2) reduce suffering secondary to mental stress and mental illness; and 3) increase perceived satisfaction regarding personal, social and professional competencies.

PROFESSIONALS

The first line of access to counseling is through

Quinn T. Chipley, M.A., M.D.
Counseling Coordinator
Health Sciences Center
Office of Medical Student Affairs
University of Louisville
(502) 852-0996
q0chip01@louisville.edu

His office is housed directly in the Office of Medical Student Affairs, Suite 210, in the A building of the School of Medicine. Dr. Chipley is available on the HSC Campus 30 hours each week distributed across the five business days, Monday through Friday. Dr. Chipley maintains his own written client records and does not post records to any electronic systems. Paper copies and digital records on an external-drive record are kept in locked cabinets in his office. Clients can choose to wait for appointments either in a waiting area outside of the main office suite or in a waiting area inside the main office suite. Client information is not shared with faculty, staff or other professionals without written consent authorized by client signature. Clients are apprised of HIPAA conditions orally and in writing at the outset of the therapeutic relationship.

The HSC Counseling Office also works closely with and pays part of the salary of two board certified psychiatrists in Campus Health Services, Gordon Strauss, M.D., and Roberta Schaffner, M.D. They primarily see medical students and residents at offices in Campus Health Services, UofL Outpatient Center 401 E. Chestnut, Suite 110, or by phone 502-852-6446. Students can contact these psychiatrists directly without referral from any other professional.

REFERRAL SOURCES

The physicians and staff of Campus Health Services; the Interim Associate Dean for Student Affairs, Michael Ostapchuck, M.D.; Academic Counseling Coordinator, Ms. Gail Haynes, M.Ed.; Medical Student Wellness Coordinator; Mr. Tony Simms, MPH, all other Office of Medical Student Affairs Staff; and the Advisory Deans are encouraged to refer students to counseling when needs are recognized. They are also provided with Dr. Chipley's cell phone number to allow extended opportunities for referral. Student leaders at varied levels of student government are also trained. They attend three different "Wellness Matters" lunch and learn sessions during the first year of the curriculum (Adapting to Medical School Stress, Substance Abuse and Addiction, and Recognizing and Responding to Depression) as well as one "Wellness Matters" lunch and learn in the second year of the curriculum (Preparation for USMLE Step I). Dr. Chipley is present at each of these sessions and teaches components on recognition and referral as needed. In addition, Dr. Chipley leads newly inducted student leaders from all class levels in a lunch-and-learn session on Suicide Prevention, held annually in the early winter semester weeks. These opportunities are designed to help students recognize situations among their peers that might suggest the need for a counseling referral. Dr. Chipley also responds quickly to email messages and routinely checks emails on business days from 8 a.m. until 10 p.m.

LEVELS OF RESPONSE

1) For life threatening emergencies, that is, *situations that suggest an imminent threat of suicidal behavior*, the Health Sciences Center campus has an emergency hotline phone number, 502-852-PREV. This service is publicized by 1) in-service sessions to faculty, staff and student leaders; 2) orientation sessions for all students; and 3) the webpage for HSC Counseling. That number is answered either by Dr. Chipley or it is forwarded directly to Emergency Psychiatry Services of University Hospital. That system is designed such that a call is always answered by a person and not by voice mail, and such that a qualified responder will answer calls 24/7. All Medical Student Affairs staff, all advisory deans, and all medical student leaders are trained in standard aspects of suicide prevention.

2) For urgent situations that are *not life-threatening, but which present with acute, emotionally debilitating symptoms*, Dr. Chipley (often with the help of other Medical Student Affairs staff) ensures that he sees the student himself or that another competent mental health provider sees the student within 4 to 8 hours. Mr. Tony Simms, MPH, Student Wellness Coordinator in the Office of Medical Student Affairs, has particular expertise in triage assessment of such situations. This confederation of services across office, disciplines and campuses has resulted in a system that provides timely response to urgencies during normal business hours.

3) Scheduled appointments for counseling and mental health services are provided for a variety of problems and circumstances that include, but are not limited to:

- Abrupt Life Changes (e.g. – death in family, etc.)
- Depression and Anxiety (including management of bipolar disorders; also, test-anxiety)
- Academic Difficulties (coping hints and quick referral to academic counseling; ruling-out mental health causes of the academic problems)
- Substance Abuse and Addiction
- Financial Stressors (e.g. family-of-origin, no automobile, living hand-to-mouth)
- Adjusting to Recent trauma or Accidents (e.g. Acute Stress Disorder secondary to motor vehicle accidents, physical assault, robbery)

4) Full testing for Attention Deficit Hyperactivity Disorder, with and without Hyperactivity, and Learning Difficulties is available at the Belknap Campus Counseling Center of the University of Louisville, 502-852-6585, at discounted costs. Students can submit documentation for such disabilities and appropriate accommodations through Mr. Bob Blake at the Disability Resources Center on the Belknap Campus, phone 502-852-6938.

b. Describe the policies, procedures, and practices that ensure that the providers of sensitive health, psychiatric, or psychological care to medical students (e.g., for substance abuse, sexually transmitted diseases) will not be in a position at some present or future time to assess their academic performance or take part in decisions regarding their advancement and/or graduation. Include copies of relevant medical school policies and/or procedures.

The medical school's policy is that "Any faculty member who provides psychiatric, psychological counseling or physical health services of a 'sensitive nature' must have no role in the evaluation and grading of students receiving those services." Also see **Appendix MS-26/27-A.b.*1** for the policy, which is located on the Student Affairs and OME Websites at: <https://medicalstudentaffairs.louisville.edu/counseling-services-health-sciences-center.html>

c. Briefly summarize any medical school programs designed to facilitate medical students' ongoing adjustment to the physical and emotional demands of medical school.

Housing Day

In early June, first year students, their parents, and significant others are invited to Housing Day, hosted by the Office of Medical Student Affairs and Interim Associate Dean for Student Affairs, to give students a chance to meet each other and locate housing.

Students receive contact information for students who are looking for a roommate and they receive a listing of apartments in the area. Selected second year students talk about the best places to live in Louisville; they describe available apartment complexes and discuss convenience, safety, expense, parking, and amenities issues. Second year students are present during lunch to provide a student perspective on questions students

and families have regarding the city and medical school. After lunch, the second year students accompany the incoming students on tours of several of these apartment complexes.

Additional listings of housing opportunities are available on the Medical Student Affairs website including for sale or rent houses and condominiums.

Student Mentors

Once an incoming student accepts the invitation to attend UofL SOM, a second year student is assigned to be his or her mentor throughout medical school. The process of selecting first and second year pairings is conducted by the Office of Medical Student Affairs and the second-year class secretary. Email communication is sent to the second year students asking if they would like to mentor a first year student. Although it is not mandatory for second year students to mentor a first year students, greater than 80% of the second year students do choose to serve in this role. If a second year chooses to mentor a first year student, the incoming student will join the mentor's Advisory College and be assigned to the mentor's former unit lab desk.

Prior to the first year students arriving at medical school, the second year student is expected to make contact with the incoming student to introduce him/herself, establish the relationship and answer any questions the incoming student may have. During orientation week, the first and second year students get to meet at a social event. Oftentimes, the second year students will pass down their books to the first year student.

Each student mentor is trained on suicide prevention and intervention. First and second year pairs meet throughout the semester to discuss common stressors first year students face. As these students move up in class, their mentoring relationship continues – when the second year student becomes a third year, he or she continues to mentor their first year through the second year and so on.

First Year Orientation

First Year Orientation follows our White Coat Ceremony on Sunday and is a four-day program for matriculating students. Orientation occurs the Monday through Thursday prior to the first day of class. The Friday before class is reserved for Basic Life Support training. Orientation allows students time to transition to the University of Louisville, learn about the history of the School of Medicine, meet their Advisory Dean and Course Directors, and develop skills that will help them be better prepared to begin classes.

Orientation activities are planned by Office of Medical Student Affairs staff as well as a committee of students. Each year, the program is modified based on student feedback to better meet their needs. Incoming students meet their classmates, faculty, staff, and upper class students as they learn about available resources and practice clinical skills that will help ensure success. They also learn about the demands of medical school and how to care for themselves and one another.

During the days, students are at the School of Medicine for educational sessions that acquaint them with the medical school. Evening hours are intentionally reserved for social activities to give students an opportunity to gather off campus and meet others in their class as well as older students. Activities include a cookout at the home of the

Interim Dean, a cruise on the Belle of Louisville hosted by the Interim Dean of the School of Medicine, a night at a Louisville BATS game hosted by the Office of Medical Student Affairs, as well as other events planned by the second year social chair.

Advisory College Program

In 2011, a new Advisory College Program was created by the Office of Medical Student Affairs, by the then Senior Associate Dean and a student committee seeking to build both horizontal and vertical relationships between classes. The six Advisory Colleges serve to enhance the current unit lab structure and Advisory Dean Program. Each first/second year unit lab was assigned a college name in honor of a significant historical SOM Dean or a prominent historical medical figure from the school or Louisville.

Throughout the year, students from individual Advisory Colleges gather as a group for social and service activities. Once a semester, an event is scheduled in which students from all colleges participate. The College Cup takes place in the fall and consists of team-based activities. Teams compete in a variety of activities for points and the college with the most points at the end of the day is awarded the College Cup. The ULSOM Service Day takes place in the spring. Each college is responsible for planning its own service activity in the community – six service projects happening at once by UofL medical students. At the end of the service day, students gather for a cookout and reflect on their experiences with other students, faculty, and staff.

Advisory Dean Program

Not only do Advisory Deans play a key role in the academic advising of students, they are also instrumental in helping them with ongoing demands. The duties of the Advisory Dean include both individual meetings as well as groups meetings with their students. Throughout the year, Advisory Deans advise on the transition into medical school, study techniques, board preparation, interview preparation and skills, specialty choices, etc. The topic of advising depends on the academic status and needs of the student.

Peer College Advocate Program

Second year students are interviewed and selected in the spring semester to serve as advocates for first year students. A total of thirty-six second year students are chosen to serve as advocates; six second year students serve each first-year unit lab. These advocates visit regularly with first year students in their labs to address concerns, answer questions and share strategies for successfully completing the first year of medical school. They also offer advice on study techniques, share valuable resources, plan practice OSCE exams, share opportunities for summer programs, and plan social activities.

Third and fourth year students are selected to serve as advocates for each second-year unit lab. They offer information on selecting tracks (clerkship sequence), studying for boards, and applying for residencies; they also plan social activities and make themselves available to address concerns, answer questions, and provide encouragement.

The most important function of the Advocate program is that it creates a forum for peer-to-peer advising with the focus of providing mentoring to less experienced students.

Advocates usually give students their personal contact information in case students have questions during the academic year.

Leadership Development Program

Student leadership development is strongly valued by the School of Medicine, and student leaders participate in a formal leadership development program. At the beginning of each year, the Interim Associate Dean for Students Affairs (or the Interim Dean) holds a leadership retreat with Senate and Class Officers, student organization presidents, and process improvement leaders. Basic elements of leadership are discussed, and the student leaders set goals for the year and strategies to achieve them. Quarterly follow-up retreats are held to discuss progress. Monthly leadership meetings are also held with student leaders, key administrators, and staff to exchange information, share ideas, and communicate concerns.

School of Medicine Dean's Activities

The Interim Dean hosts an Open Forum with students each semester, discussing current issues at School of Medicine and invites questions from the students about any topic they choose. In addition, she hosts a noon music program for students from instrumental, piano or choir members from the School of Music. Student feedback about each of these sessions has been extremely positive and they are well attended.

MS-27. A medical education program must provide medical students with access to diagnostic, preventive, and therapeutic health services.

Medical students should have timely access to needed preventive, diagnostic, and therapeutic medical and mental health services at sites in reasonable proximity to the locations of their required educational experiences. Students should be supplied with information about where and how to access health services at all locations where required training occurs. Students with school-sponsored health insurance policies should also be informed about coverage for necessary services. Medical schools also should have policies and/or practices that permit students to be excused from classes or clinical activities to seek needed care.

a. Describe the system for providing preventive, diagnostic, and therapeutic health services, including the location(s) of health care sites, hours of operation, and services provided. Describe the means by which the costs of services are covered.

All medical students are required to carry major medical insurance and pay a mandatory Health Professionals Health Fee (HPHF) while enrolled in the School of Medicine. Students are automatically enrolled in the University sponsored plan unless they submit an electronic health insurance waiver. Students are free to select any health insurance plan to waive the university-sponsored plan. Waivers are electronically authenticated to confirm that coverage is in force. Audits are conducted twice yearly to ensure no lapses in coverage occur. The waiver site can be accessed at <http://louisville.edu/campushealth/hsc-students/main-display-page-hsc-students.html> which navigates the student through the waiver process.

The HPHF is a supplement to the students' insurance and covers any copays or deductibles for office visits, allergy injections, and physical exams. Annual flu shots, tuberculosis skin testing, as well as evaluations, diagnostic testing and prophylaxis blood borne pathogen exposures are covered at no charge to the student's insurance plan or the student. Other post exposure prophylaxis such as antibiotics for meningococcal exposures are also provided free of charge. In the event a student takes a leave of absence, he or she is eligible to continue on the student insurance plan for up to one year and/or be seen at the health center while on medical leave.

The Health Services Office (adjacent to the Belknap Campus) maintains two locations: (1) Health Sciences Center (HSC) and (2) Cardinal Station on the Belknap Campus. The HSC office is designed to meet the needs of busy professional students. Appointments are encouraged, but walk-ins are accommodated as needed. The HSC office hours are 8:30 AM to 4:30 PM, Monday through Friday. The office remains open over the lunch hour from 12 PM until 1 PM for immunizations, allergy injections and urgent appointments. Saturday hours are available from 9-1 at Cardinal Station during the fall and spring semesters. An on-call provider is available 24/7 through an answering service for urgent medical needs, including blood borne pathogen exposures.

Mental Health Services are provided through the HSC counselor housed in the School of Medicine Office of Student Affairs as well as two contracted faculty psychiatrists housed at the HSC health office. None of the providers plays a role in student evaluations.

Psychiatric services can be continued if the student is on a leave of absence to insure continuity of care and seamless return to their studies. For confidentiality, psychiatric treatment/therapy notes are maintained separately in the electronic record. Only psychiatric providers have access to these notes with the remainder of the chart visible to all Health Service providers. Unlimited counseling and psychiatric services are provided through the PCHF without any charge to students or billing of their insurance. Additional counselors are available through the Counseling Center at the Belknap Campus Health Services Office for those who opt to be seen at the main campus.

An elective in College Health is available to senior medical students and occasionally residents but only at our Cardinal Station location on the Belknap Campus. The HSC health office does not provide any teaching rotations for medical student or residents.

b. Describe the process by which the medical school ensures that medical students at all instructional sites/campuses, including those who are completing required away rotations, have information about and access to needed health services.

All students from HSC are required to purchase the student health plan through the university or provide proof of insurance through another means. Students are directed to the following website to view their benefits and available providers. www.ahpcare.com.

MS-28. A medical education program must make health insurance available to each medical student and his or her dependents and provide each medical student with access to disability insurance.

a. Indicate whether health insurance is available to all medical students and their dependents and briefly describe the scope of benefits and premium costs. Who pays the insurance premium?

Health Insurance

All medical students are required to carry major medical health insurance. All medical students are charged for the University-sponsored student insurance plan on their tuition bills. Spouse and dependent coverage is also available for purchase, albeit very expensive. Students may waive the insurance electronically with proof of coverage. The student's insurance coverage is electronically verified twice a year to ensure compliance with the requirement.

The University sponsored student insurance plan is offered through the Academic Health Plans with the United Healthcare national provider network. The plan includes coverage for preexisting conditions, pregnancy, substance abuse, psychiatric disorders and pregnancy. Psychiatric disorders are covered as any other illness.

The 2011-2012 annual premium for a student was \$2016.00. For medical students, the premium is divided into two equal payments for the fall and spring semesters (spring premium includes summer coverage). Students entering during the summer term may purchase a summer term plan.

A copy of the current brochure is available at:

<https://www.academichealthplans.com/louisville/2011-2012/pdf/2011-382-1%20Brochure%20Final%20Verison%209.pdf> or also see **Appendix MS-28.a*1**

b. Indicate whether disability insurance is available to medical students and describe the means by which medical students are informed of its availability.

Students have the option of purchasing disability insurance from the carrier of their choice, but most students who purchase disability insurance do so from one of three carriers provided. Purchasing this insurance is not a requirement, and the school provides no funding toward its purchase.

MS-29. A medical education program should follow accepted guidelines in determining immunizations requirements for its medical students.

A medical education program in the U.S. should follow guidelines issued by the Centers for Disease Control and Prevention, along with those of relevant state agencies. A medical education program in Canada should follow the guidelines of the Laboratory Center for Disease Control and relevant provincial agencies.

a. Briefly describe the medical school's immunization policies and procedures for its medical students. Describe the process by which these policies were developed.

All medical students are required to meet the HSC (Health Sciences Center) immunization requirements, which were developed using the recommendations of the American Council on Immunization Practices (ACIP) and Centers for Disease Control (CDC) in collaboration with our affiliated hospitals. These recommendations are reviewed and updated periodically when new or revised recommendations are released.

Students are expected to initiate their immunization requirements (see MS-29.b) by the start of their studies at the School of Medicine. Due to immunization schedules, it may not be medically possible for some students to be in full compliance at the beginning of their academic program. Students must obtain these immunizations and testing at their own expense. The Health Services Offices offers low-cost immunizations, and special immunization sessions are held immediately prior to the start of the freshman year for the students' convenience.

b. Describe the process by which the immunization status of medical students is monitored.

Campus Health Services provides monitoring and oversight of the medical student immunization program. A dedicated HSC Immunization Coordinator tracks all students' immunizations and tuberculosis testing using a custom-built immunization tracking program that is stored on University servers behind a secure login. This database allows students to submit their immunization records and print their own immunization certificates and allows the Immunization Coordinator to track individual students, entire schools or groups of residents. The Immunization Coordinator constantly monitors the database and notifies students of upcoming immunizations and/or late immunizations via e-mail. These begin approximately 30 days prior to the projected due date and continue for up to 2 weeks after the due date if a student fails to respond. Students who are more than 2 weeks past due for any immunization or tuberculosis testing are reported to the Office of Medical Student Affairs. The Director of Medical Student Affairs then follows up with the student to ensure compliance.

MS-30. A medical education program must have policies that effectively address medical student exposure to infectious and environmental hazards.

The medical education program's policies regarding medical student exposure to infectious and environmental hazards should include: 1) the education of medical students about methods of prevention; 2) the procedures for care and treatment after exposure, including a definition of financial responsibility; and 3) the effects of infectious and environmental disease or disability on medical student learning activities. All registered students (including visiting students) should be informed of these policies before undertaking any educational activities that would place them at risk.

a. Describe institutional policies regarding medical student exposure to infectious and environmental hazards, including the following:

i. The education of medical students about methods of prevention

Students are informed of the University's policies on infectious exposures and environmental hazards by the Director of HSC Health Services at the first year Student Orientation program (held the week before classes begin). At that time, they are taught to use N95 respirators and alcohol hand gel and the blood borne pathogen exposure program is explained. Risk, pre- and post-exposure prophylaxis and complications from treatment are reviewed.

Students are issued cards containing exposure information, which they attach to their ID badges. The information on this card includes the telephone number for UofL Health Services Office, which provides 24-hour consultation and treatment for occupational injuries (**Appendix MS-30 a*1**). The information is reinforced at the beginning of clerkships during clinical orientation.

ii. The procedures for care and treatment after exposure, including definition of financial responsibility

Procedures are based on the updated U.S. Public Health Service Guidelines for the Management of Occupational Exposures to HIV and Recommendations for Postexposure Prophylaxis (MMWR, September 30, 2005 / 54(RR09); 1-17). For University policy, this topic is addressed in Management of Blood Borne Pathogen Exposures-
<http://louisville.edu/medschool/gme/new-resident-orientation/Bloodbourne%20pathogens%20pres.pdf>
(**Appendix MS-30.a*2**).

Financial responsibility is also described in the *School of Medicine Bulletin* (p. 25), "When a student is exposed in the course of assigned health sciences education activities, the cost of testing, HIV post exposure prophylactic (PEP) medication, and/or immune globulin when given as recommended by the Student Health physician, will be borne by the University of Louisville. Long term treatment, if needed, will be the responsibility of the student and/or insurer."

iii. The effects of infectious and/or environmental disease or disability on medical student educational activities

This topic is addressed directly in the *School of Medicine Bulletin* (p. 24) policy on *Students Exposed to or Infected With Hepatitis B Virus, Hepatitis C Virus, Human Immunodeficiency Virus or Other Bloodborne Pathogens, Sections 4 and 5*

b. Briefly summarize any protocols that must be followed by medical students regarding exposure to contaminated body fluids, infectious disease screening and follow-up, hepatitis-B vaccination, and HIV testing. Describe when and how students, including visiting students, learn about the procedures to be followed in the event of exposure to blood-borne or air-borne pathogens (e.g., a needle-stick injury).

Students are informed during first year orientation as well as clinical orientation of the protocols outlined in the MS-30.a response. This information is also contained in the *School of Medicine Bulletin* (see pages 23-25). If an exposure occurs, students follow the above described protocol by phoning the number provided and receiving further instructions on screening, testing, and treatment.

c. Describe when in the course of their medical educations medical students learn how to prevent exposure to infectious diseases, especially from contaminated body fluids.

Students learn how to prevent exposure to infectious diseases, especially from contaminated body fluids, during first year orientation; the information is reinforced during clinical orientation and on clinical clerkships.

MS-31. In a medical education program, there should be no discrimination on the basis of age, creed, gender identity, national origin, race, sex, or sexual orientation in any of the program's activities.

a. Include a copy of the medical school's anti-discrimination policy.

See **Appendix MS-31.a*1**

b. Describe any circumstances in which medical school applicants or students may receive differential consideration on the basis of age, creed, gender identity, national origin, race, sex, or sexual orientation.

All applicants are considered in the same competitive pool using identical policies and procedures. Each applicant is reviewed individually to judge his or her competitiveness within the total pool. Given the Admissions Committee's stated mission and specific goals, ethnicity, including race and geographic origin, are among the many factors taken into account as we strive to "select students who are highly likely to complete the medical school curriculum successfully and be competent and caring physicians."

MS-31-A: A medical education program must ensure that its learning environment promotes the development of explicit and appropriate professional attributes in its medical students (i.e., attitudes, behaviors, and identity).

The medical education program, including its faculty, staff, medical students, residents, and affiliated instructional sites, shares responsibility for creating an appropriate learning environment. The learning environment includes both formal learning activities and the attitudes, values, and informal "lessons" conveyed by individuals who interact with the medical student. These mutual obligations should be reflected in agreements (e.g., affiliation agreements) at the institutional and/or departmental levels.

It is expected that a medical education program will define the professional attributes it wishes its medical students to develop in the context of the program's mission and the community in which it operates. Such attributes should also be promulgated to the faculty and staff of the medical education program. As part of their formal training, medical students should learn the importance of demonstrating the attributes of a professional and understand the balance of privileges and obligations that the public and the profession expect of a physician. Examples of professional attributes are available from such resources as the American Board of Internal Medicine's Project Professionalism or the AAMC's Medical School Objectives Project.

The medical education program and its faculty, staff, medical students, and residents should also regularly evaluate the learning environment to identify positive and negative influences on the maintenance of professional standards and conduct and develop appropriate strategies to enhance the positive and mitigate the negative influences. The program should have suitable mechanisms available to identify and promptly correct recurring violations of professional standards.

a. Provide a list or table of the professional attributes that medical students are expected to develop over the course of their medical education. Describe the process by which the list of desired attributes was developed and the groups responsible for its review and approval (e.g., faculty as a whole, curriculum committee, student government). Describe the means by which the list of desired attributes is made known to medical students, faculty members, residents, and others.

The school's educational objectives document provides a framework for the core professional attributes that medical students are expected to master over the course of their medical education (**Appendix ED-1-b*1**). One of the eight competency themes in the document is Professionalism.

UofL Educational Objectives Linked to ACGME Themes:

1. Professionalism

1.1 The ability to care for patients in a compassionate way, consistently demonstrating respect for the privacy and dignity of all patients [ACGME 3]

1.2 The ability to consistently and dependably carry out duties with honesty, personal integrity, self-motivation and self-discipline. [ACGME 3]

1.3 The ability to confront their own values as they relate to the practice of medicine. [ACGME 3]

- 1.4 Demonstrate personal manners, dress, grooming, speech, and interpersonal skills expected of a medical professional. [ACGME 3]
- 1.5 Knowledge of the theories and principles that govern ethical decision making. [ACGME 4]UNIVERSITY OF LOUISVILLE
- 1.6 Knowledge of the major ethical dilemmas in medicine, particularly those that arise at the beginning and end of life and those that arise from the rapidly expanding field of genetics. [ACGME 4]
- 1.7 Knowledge of a physician's responsibilities to protect and care for individuals and populations that are vulnerable, at risk, or disadvantaged. [ACGME 4]
- 1.8 The ability to understand legal and ethical issues such as informed consent, malpractice, conflict of interest and confidentiality. [2.8]
- 1.9 The ability to accept constructive performance feedback and develop an action plan for improvement. [ACGME 3]
- 1.10 A commitment to lifelong learning. [ACGME 3]

These professionalism objectives were originally developed in 2004 by the Program Objectives Task Force, made up of faculty, administrators and students, and were based upon the American Board of Internal Medicine's Project Professionalism and the AAMC's Medical School Objectives Project. They were formally approved by the Educational Policy Committee and the Executive Faculty. All of the school's objectives, including those in the Professionalism competency theme, were reviewed and revised during AY 2009-2010 with input from course and clerkship directors and approved by the Educational Policy Committee (April 2010).

The knowledge, skills, and attitudes related to professionalism are made known to medical students repeatedly and through several venues. Students first hear about these objectives at Orientation, when the Associate Dean for Medical Education discusses them in her session with students. In addition, the objectives are posted at the EPC website, the OME website, and OME student Blackboard website, which contains information important to students. Finally, all required course and clerkship syllabi must include information about how the course or clerkship objectives link to the school's educational objectives. For all of the clerkships and almost all of the preclinical courses, some of the school's professionalism objectives are included in this section of the syllabus.

Residents and faculty involved in teaching medical students learn about the school's professionalism objectives at departmental meetings, orientations, and through email communications, specifically in relation to the clinical performance evaluation that they must complete for each student they work with; this evaluation lists the professional behaviors as they are articulated in the school's educational objectives document. (NOTE: All new faculty and first year interns will receive a copy of the school's educational objectives at their orientation and/or RATs Workshop, effective AY 2012-2013.)

The school also developed a new Honor Code, which outlines the professional attributes students are expected to demonstrate, including integrity and honesty, concern and respect for others and acting in a responsible and professional manner (Appendix MS-31-A.a*1). Students are informed that matriculation constitutes acceptance of the Honor Code. The Honor Code was written by a

committee of students and modified by HEART (the Humanism in Medicine Committee), student government leaders, and course and clerkship directors. It was approved by Faculty Forum (elected faculty representatives from each department) and endorsed by Medical Council (department chairs).

b. Describe where in the curriculum medical students learn about these professional attributes and the importance of attaining and regularly demonstrating them. Include in this description examples of formal instructional efforts by which medical students learn about the professional behaviors and attitudes expected of them.

Students learn about the expected professional attributes in their Introduction to Clinical Medicine course through lectures, case based small group discussions and standardized patient encounters. For example, the ethics small groups and the Interdisciplinary Clinical Cases (ICC) small groups both teach to these professional attributes. In addition, students learn the professional attributes required in a physician through their ICM preceptorships and humanism projects, for example, the crafting of their own personal Hippocratic Oath. Other examples of learning experiences that teach the medical students the behaviors and attitudes expected of them as professionals are the Intersection of Medicine and Religion course, in which students grapple with clinical scenarios that have professionalism issues; the second year Genetics course also includes a lecture on ethics. Finally, the Gross Anatomy orientation emphasizes the professional attributes students must exhibit as they work with their “first patient.”

Professional attributes and behaviors are also taught and emphasized in all of the required clinical clerkships, both informally in student/faculty daily interactions, and formally, in small group sessions (Obstetrics and Gynecology; Family Medicine) and reflective writings (Pediatrics and Medicine).

c. Briefly summarize the methods used to assess medical students’ attainment of appropriate professional attributes. Include copies of any assessment instruments. Describe the means by which identified deficiencies are remediated.

Clinical faculty, standardized patients, and peers assess student mastery of professional attributes. During the preclinical years, standardized patients evaluate student professional attributes as part of the required Clinical Skills Examination 2 (CSE 2); the checklist for this examination includes attributes associated with professionalism (Appendix ED-27.b*3). Also, standardized patients provide formative feedback during teaching sessions, which could include feedback about professional behaviors and attitudes. Finally, students complete peer evaluations during the first year based on their experiences working together as a Gross Anatomy dissection team and at the end of the first and second years based on their experiences working with their Interdisciplinary Clinical Cases team (Appendix ED-23.b*1). If students receive concerning reports on their peer evaluations of professionalism, their Advisory Deans are notified and they are counseled and tracked for improvement. In some cases, students meet directly with the Interim Associate Dean for Students Affairs.

During the clinical years, the clinical performance evaluation instrument used in all required clinical clerkships contains a section on professionalism, and includes behaviors such as honor and integrity, responsibility and accountability, and respect (Appendix ED-15-A.a*1). All faculty and residents who work with students in all required clinical clerkships complete this evaluation, and, in most cases, the professionalism evaluations are weighted at 20% of the clinical performance grade. Standardized patients also evaluate students’ professional behaviors and

attitudes on the checklist used for the Clinical Skills Examination 3 (CSE 3), which is administered at the end of the third year in June ([Appendix MS-31-A.c*1](#)).

Remediation of any professional behaviors or attitudes is coordinated primarily through the Standardized Patient Program. Students may be referred to the SP Program by an individual clerkship director or as a result of poor performance on the CSE 1, 2, or 3 exams. (Note: CSE 1 and 2 are housed in the Introduction to Clinical Medicine course and students must pass these exams to pass the course; CSE 3 is a program requirement, and students must pass or remediate a failing grade to graduate.) During the preclinical years, the Advisory Deans also play a role in remediating students who display unprofessional behaviors, as described earlier in this section.

d. Describe the mechanisms used by the medical school and its clinical affiliates/partners to identify positive and negative influences on medical student professional behavior, particularly in the clinical environment. Summarize all available options by which medical students, faculty members, and/or housestaff are able to report observed incidents of unprofessional behavior exhibited by anyone in the learning environment (students, faculty, residents, others). Identify the individual(s) to whom reports of unprofessional behavior can be made.

Medical students have a well-defined process to report incidents of unprofessional behavior, particularly in the clinical environment. They can report an incident to peer student leaders (Track Captains), their Advisory Dean, or a member of the Office of Medical Student Affairs. They can also report the incident directly to the clinical clerkship director. These reports come to the attention of the Interim Associate Dean for Student Affairs, who then speaks with the involved individual, the clerkship director, the department chair or the Associate Dean for Faculty Affairs, as appropriate. In addition, the EPC course and clerkship evaluation instrument contains a question about mistreatment of students, which provides students with an opportunity to describe and report incidences of unprofessional behaviors; an aggregate report is prepared by Office of Medical Education staff at the end of December and the end of June so that the Associate Dean for Medical Education can review student feedback and work with individual clerkship directors in a timely manner. ([Appendix ED-35.b*2](#))

Residents report incidents of unprofessional behavior either to their clerkship directors, program directors, department chairs or the Associate Dean for Graduate Medical Education, as appropriate. Faculty report such incidents through clerkship directors, program directors, department chairs or the Associate Dean for Faculty Affairs, as appropriate.

Finally, regularly scheduled administrative meetings provide opportunities to discuss reports of unprofessional behaviors observed in the clinical environment: the monthly partnership meetings hosted by the Dean and our hospital partners and the weekly Dean's staff meeting. During the past two years, the agenda for the Dean's Staff meeting has contained items related to student and faculty reports of unprofessional behavior, and the discussion at those meetings ended with action items to resolve or further explore the report.

e. Identify the individual(s) who is/are responsible for ensuring that appropriate canons of professional behavior established by the medical school are maintained in all educational settings. Describe any policies or procedures (e.g., excerpts from affiliation agreements) establishing the shared responsibility for an appropriate learning environment in clinical settings. Describe any mechanisms (e.g., joint hospital/medical school committees) that exist to foster an appropriate learning environment.

In the case of students, the Interim Associate Dean for Student Affairs is responsible; in the case of residents, the Associate Dean for Graduate Medical Education is responsible; and, in the case of faculty, the Associate Dean for Faculty Affairs is responsible. Each major hospital affiliate has a mechanism in place for ensuring an appropriate learning environment in the clinical setting. University of Louisville SOM has a Professionalism Committee that ensures the appropriate canons of professional behaviors are maintained. Norton Hospital, Kosair Children's Hospital and the VA Hospital each addresses these issues through their respective Medical Staff Executive Committees. As mentioned earlier, the monthly partnership meetings hosted jointly by the Dean with Jewish Hospital and the VA Hospital, as well as the Dean's weekly staff meetings, are mechanisms for discussing concerns that arise related to fostering an appropriate learning environment.

See also information for standards MS-32 and ER-9.

MS-32. A medical education program must define and publicize the standards of conduct for the faculty-student relationship and develop written policies for addressing violations of those standards.

The standards of conduct need not be unique to the medical education program; they may originate from other sources (e.g., the parent institution). Mechanisms for reporting violations of these standards (e.g., incidents of harassment or abuse) should ensure that the violations can be registered and investigated without fear of retaliation.

The medical education program's policies also should specify mechanisms for the prompt handling of such complaints and support educational activities aimed at preventing inappropriate behavior.

a. Provide a copy of any formal medical school or university statements of the standards of conduct expected in the teacher-learner relationship, including student mistreatment policies. Describe the means by which medical students, residents, faculty (full-time, part-time, and volunteer), and staff are informed about these institutional statements of expected conduct.

The policy can be found in **Appendix MS-32.a*1**. A copy of the policy is in every syllabus, it is on the Office of Medical Student Affairs website, in the Bulletin, and a part of new faculty and new resident orientation. It is also discussed at the orientation sessions before the first year and before the third year.

b. Describe and provide a copy (or Web site URL) of any formal or informal policies and procedures for handling allegations of medical student mistreatment, including the avenues for reporting such incidents and the mechanisms for investigating them. Describe any available evidence that documents the effectiveness of such policies.

The School of Medicine has a formal Student Mistreatment Policy that is widely publicized in the *School of Medicine Bulletin* (pages 22-23), which is posted at the Office of Medical Student Affairs website (<http://netapps.louisville.edu/MEDCourseCatalog/?id=34>). Course and clerkship syllabi also include information about the mistreatment policy and a link. The policy is also disseminated during New Resident Orientation and New Faculty Orientation.

The EPC uses the AAMC Graduation Questionnaire results to obtain evidence that documents student awareness and the effectiveness of the school's mistreatment policy. For 2011, 98% of graduating students at UofL responded "yes" to this question: "Are you aware that your school has policies regarding the mistreatment of medical students?" (national, 89%). For 2012, 97% of graduating students at UofL responded "yes"; (national, 84%).

The Dean's Scorecard initiative is produced annually for each department chair using indicators for a variety of performance areas, including undergraduate medical education. One of the indicators for undergraduate medical education focuses on the "learning environment." (**Appendix MS-32.b*1**) The tool for measuring this indicator is a question on the required course and clerkship evaluation that students complete: "I experienced or witnessed mistreatment in this course/clerkship based on gender, race, ethnicity, or sexual orientation." The obvious goal is that all of the responding students will answer "no" to this question. For AY 2010-2011, 3/7 clinical departments and 3/5 basic science departments had no incidents reported on the evaluations. (**Appendix MS-32.b*2**) We clearly still have work to do. The responses to this question are also

monitored by the Associate Dean for Medical Education, who reviews student responses regularly and works with individual course and clerkship directors as needed.

c. How is the frequency of medical student mistreatment monitored? Include data from the AAMC GQ or the AAMC CGQ, course and clerkship rotation evaluations, the independent student analysis, and/or internal school surveys that illustrate the recent percentage of students who perceive that they have themselves experienced mistreatment or who have witnessed the mistreatment of another medical student.

The frequency of student mistreatment is monitored through course and clerkship evaluations on an ongoing basis at the end of each semester by the Associate Dean for Medical Education, who reviews student responses to the “mistreatment” question and communicates with individual course and clerkship directors as needed. For AY 2011-12, the number of students who reported experiencing or witnessing mistreatment in a preclinical course ranged from 0 to 2; in the clinical clerkships, the range was 0-6. The Associate Dean worked with any course or clerkship director whose students reported witnessing or experiencing mistreatment to identify the source and make necessary changes.

As reported in MS-32.b, the results for this question on the student evaluation are also used as an indicator of the student learning environment on the Dean’s Scorecard for department chairs. The Interim Associate Dean for Student Affairs also monitors the mistreatment data and works closely with the Associate Dean for Medical Education when mistreatment is reported.

In addition, the Educational Policy Committee uses the results of the AAMC Graduation Questionnaire to monitor the frequency of student mistreatment. For AY 2011-2012, University of Louisville students who indicated they personally experienced one of the 15 mistreatment behaviors listed in the AAMC GQ had higher “never” scores than the national average for 12 of the 15 behaviors. Fifty eight percent of the Louisville graduates (national, 53%) responded “no” to the question that asked if they had personally experienced any of the listed mistreatment behaviors.

d. What actions has the medical school taken to address the level of medical student mistreatment? Describe any educational programs provided by the medical school or the parent university to prevent medical student mistreatment.

The interim dean has affirmed her commitment to maintaining appropriate standards of conduct for the faculty-student relationship by including student mistreatment as part of each department chair’s Scorecard, which is used, in part, to allocate discretionary supplemental pay to the chairs. New Resident Orientation also has a specific educational module related to student mistreatment and the learning environment.

MS-33. A medical education program must publicize to all faculty and medical students its standards and procedures for the assessment, advancement, and graduation of its medical students and for disciplinary action.

Attach a copy of or the Web site URL for, the medical school's standards and procedures for the assessment, advancement, and graduation of medical students, and the procedures for disciplinary action. Describe the means by which these standards and procedures are publicized to faculty members and medical students.

This information is contained in the *School of Medicine Bulletin* (pages. 18-36) and can be found at: <https://netapps.louisville.edu/MEDCourseCatalog/?id=74> and attached links. The standards and procedures are reviewed at orientation sessions and whenever an issue arises.

MS-34. A medical education program must have a fair and formal process in place for taking any action that may affect the status of a medical student.

The medical education program's process should include timely notice of the impending action, disclosure of the evidence on which the action would be based, an opportunity for the medical student to respond, and an opportunity to appeal any adverse decision related to promotion, graduation, or dismissal.

a. Summarize the due process protections in place at the medical school when there is the possibility of the school's taking an adverse action against a medical student for academic or professionalism reasons. Include a description of the process for appeal of an adverse action, including the groups or individuals involved at each step in the process.

The Student Promotions Committee reviews all aspects of the academic and professional progress of students with unsatisfactory performance and makes recommendations to the dean for corrective action or dismissal. Students whose performance or actions make dismissal a possibility must appear before the Student Promotions Committee for a hearing. All procedures are consistent with the *School of Medicine Bulletin*. (pages 19 and 25-27) or at <https://netapps.louisville.edu/MEDCourseCatalog/?id=27> and <https://netapps.louisville.edu/MEDCourseCatalog/?id=37>

The Interim Assistant Dean for Student Affairs prepares a letter, which is mailed to the student to notify him or her of the situation and that he or she is required to come before the committee. The letter is sent approximately 10 to 14 days prior to the meeting by registered mail. The student is also notified by e-mail. The letter states that the student may bring an individual to the meeting and informs the student that he or she has until two days prior to the hearing to provide supporting documentation concerning his or her situation (letters of recommendation, personal statement, etc.). If the student is accompanied by an attorney, University Counsel is also present.

Prior to appearing before the Committee, the student must meet with the Interim Assistant Dean for Student Affairs, who discusses his or her academic status in detail and advises the student of the seriousness of the situation. At that time, the Interim Assistant Dean for Student Affairs informs the student of the availability of the Coordinator, HSC Student Counseling, if these

services might be helpful. If it seems appropriate or needed, the student is offered the services of a university psychiatrist.

The student is brought before the Committee and offered the opportunity to make a statement or provide an explanation. The student may be asked questions by the committee members. After all information is heard, the student is excused and a motion is made and seconded by committee members. After discussion, the Committee votes on the motion.

The Interim Assistant Dean for Student Affairs has the option of informing the student of the committee's recommendation on the day of the hearing. The Interim Assistant Dean reminds the student that it is a recommendation, and that the final decision rests with the dean. Any distraught student is counseled by the Coordinator, HSC Student Counseling or provided health care by one of the university psychiatrists.

The Interim Assistant Dean for Student Affairs drafts a letter to the Dean summarizing the committee's recommendations and provides his/her own recommendations. In the case of a dismissal recommendation, the Dean normally meets with the student prior to rendering a decision. The student receives a letter (via certified mail) from the Dean informing the student of the final decision. If the student wishes further information, he or she may meet with a person designated by the Dean to discuss the decision.

Students who believe they have been treated unfairly, discriminated against, or have had their rights abridged may initiate a grievance within one year from the event giving rise to the complaint. These students must first seek to resolve the matter through informal discussion and administrative channels.

The University Student Grievance Officer is responsible for informing students of their rights and obligations under the grievance procedure, particularly the deadlines that have been established. The Student Grievance Officer initially seeks to informally resolve as many grievances as possible.

In addition, if a student is involved in an incident of potential "criminal" nature, the issue may be referred to the Criminal History Review Committee for their consideration. See MS-3.a for more information on this process.

b. Describe the means by which these protections are made known to medical students.

The involved students are informed of the procedure during their meeting with the Assistant Dean for Student Affairs. In addition, the material is published in the School of Medicine Bulletin, as outlined in MS-34.a, and reviewed during orientation.

MS-35. Medical student educational records at a medical education program must be confidential and available only to those members of the faculty and administration with a need to know, unless released by the medical student or as otherwise governed by laws concerning confidentiality.

Describe the general content of the medical student's academic record file. Identify the location at which medical students' academic records are maintained. Identify the institutional official(s) who is/are authorized to examine or review such records.

Student records are housed in the Office of Medical Student Affairs. This office is directed by the Interim Associate Dean for Student Affairs.

The School of Medicine Registrar, also housed in the Office of Medical Student Affairs, maintains student grades and evaluations. First and second year student grades are recorded and stored in PeopleSoft and Excel; hard copies are stored in binders. Clinical evaluations are stored in PeopleSoft; hard copies are stored in the student files.

Student Affairs staff, the Vice Dean for Academic Affairs, the Director of Admissions, the Director of Financial Aid, and the Director of HSC Counseling are authorized to view student records. Students may view their own records 8:30 AM to 4:30 PM (Monday through Friday) in the Office of Medical Student Affairs and may request personal copies. Contents of the student's record are listed under MS-36.a.

MS-36. A medical student enrolled in a medical education program must be allowed to review and challenge his or her records.

a. Describe the components of the student record and identify any component(s) of the record that students are not permitted to review. Provide the rationale for the institutional review policy that precludes students' review of that material.

Each student's record contains at least 24 different items that reflect the student's complete history at the medical school, from the AMCAS Summary Application Report to the medical school transcript. Students may review any of these items in their record (see list below) with the exception of letters of recommendation, if they have waived their right to review them.

- AMCAS Summary Application Report
- Applicant's Submitted Secondary Application Information
- Applicant picture
- Undergraduate and/or graduate transcripts – non-UofL
- Pre-Med Report/Letters of Recommendation (electronic only-not included in paper file)*
- Letter of Admission
- Letter of Admission acceptance/copy of payment
- Application for Admissions to an Unsubsidized Place at the University of Louisville School of Medicine – signed (if applicable)
- Miscellaneous admission correspondence
- Student Information/Change of Address Card
- Authorization and Release – emergency contact information
- NBME Step 1, Step 2CS, and Step 2CK scores
- 3rd & 4th year clinical rotation evaluations of performance
- Copy of AHEC Fact Sheets
- Change of Schedule Forms (if applicable)
- Correspondence from Student Affairs Office/Dean concerning any Student Promotions Committee actions (if applicable)
- Medical Student Performance Evaluation (MSPE)
- MSPE Letter Initial Interview Form
- Copy of student CV
- Copy of student personal statement
- Letters of recommendation for residency application w/ERAS-US Applicant Letter of Recommendation (LoR) Cover Sheets*
- University of Louisville transcript – medical school
- Miscellaneous student affairs/registration correspondence

Note: Given the volume of a student record, we have compiled a sample copy for review during the site visit, rather than include as an appendix.

b. Describe the procedure that medical students must follow in order to review or challenge their records. Describe the process in place at the medical school that ensures medical students' timely access to their records.

All students have the right to review their record and the right to challenge their record. The initial challenge is brought to the official responsible for the record. If the challenge is not resolved, the student may request a hearing before the Student Record Committee. The decision of the Committee is final.

Details on the student's rights are given on the Registrar's website
<https://uofl.louisville.edu/student/services/registrar/studchal.html> (Appendix MS-36.b*1)

Also see "Privacy of Student Records" in the School of Medicine Bulletin p. 36-37,
<https://netapps.louisville.edu/MECourseCatalog/?id=40>

c. Describe the means by which the medical school's policies and procedures regarding medical students' access to, review of, and challenges to student records are made known to faculty and medical students.

Policies are made known to students at their New Student Orientation and to faculty at New Faculty Orientation. Additionally, whenever a student or faculty member asks a question about issues in this area, he or she is provided with the information.

The various policies in this area include:

- 1) *Privacy of Student Records* (MS-36.c*1)
- 2) *Guidelines to Protect the Privacy of Student Records at the University of Louisville* (MS-36.c*2)
- 3) *Procedure for Students to Exercise Their Right to Review Their Record* (MS-36.c*3)
- 4) *Right to Challenge Information in Student Records* (MS-36.c*4)
- 5) *Notification of Students' Privacy Rights Under FERPA* (MS-36.c*5)

Additional related information can also be found at the Office of Medical Student Affairs website
<https://medicalstudentaffairs.louisville.edu/> (MS-36.c*6)

d. Indicate whether there is medical school policy in place that addresses opportunities for medical students to review their performance in required course and clerkship rotations and, if necessary, to appeal an examination or course grade. If so, describe any review and appeal processes.

All courses offer students an opportunity to review non-NBME exams and to challenge questions. For Block examinations in the first and second year, students can challenge specific questions through a process that involves writing out the rationale for the challenge on the last page of the examination, a blank colored sheet. These challenges are then vetted by the Director for Preclinical Curriculum and Assessment. If the challenges are felt to be valid, the challenge is forwarded to the involved course director. Answers are sometimes changed, and points given, based on a student challenge. Students have access to course directors and teaching faculty and may schedule appointments as needed.

Students are instructed by Student Affairs during orientation and by each course and clerkship director to address any concerns with their grade directly with the course or clerkship director. The process works well. However, on rare occasions a student and a course or clerkship director cannot agree. Students who are unable to reconcile differences may discuss it with the Interim Associate Dean for Student Affairs, who will in turn make an informal inquiry to the course or clerkship director as to the rationale and to review any underlying applicable policies. If the issue is not resolved at this informal level, students are informed that they are entitled to appeal through the university's formal grievance process. The Office of Medical Student Affairs provides the student with contact to the Student Grievance Officer (see *The Redbook*, Sec. 6.8.2 and *The School of Medicine Bulletin* pages 25 – 27; and <https://netapps.louisville.edu/MECourseCatalog/?id=37> or <http://louisville.edu/dos/campus-resources/student-grievance-officer.html/>

MS-37. A medical education program should ensure that its medical students have adequate study space, lounge areas, and personal lockers or other secure storage facilities at each instructional site.

a. Describe the quantity, quality, and accessibility of medical student study space and lounge, recreation, and relaxation areas at each instructional site/campus. Indicate whether medical students share such space or facilities with students in other programs.

Study space is provided in unit labs, small group rooms, and the library.

Each first and second year student is assigned to one of 12 unit labs with 26 other members of the class. Each student has a locker and desk with locked drawers. Each unit lab is equipped with 2 flat screen video monitors, 2 chalkboards, wall clock, bulletin board, and pencil sharpeners

Each unit lab has three connected small group rooms, each with a computer, table and six chairs, and a dry erase board. Interconnected labs contain sinks, microwaves and refrigerators.

The Kornhauser Library also contains study space for all Health Sciences Center students. Regular semester hours are Monday through Thursday, 7:30 AM to 11 PM; Friday, 7:30 AM to 6 PM; Saturday, 10 AM to 6 PM; and Sunday, 1 PM to 9 PM. Hours are normally extended during exam weeks.

The 1306 square foot Student Lounge is located in the Instructional Building near the medical student unit labs and is available to all Health Sciences Center students with card access. The Lounge houses comfortable furniture, a piano, pool table, foosball table, and television. The Student Lounge is undergoing refurbishment while this report is being finalized.

Students also often study and relax in the courtyard area, located between the Instructional Building and the Library Commons Building. A basketball goal and a volleyball court provide recreational opportunities for Health Sciences Center students. There are picnic tables, trees, benches, and a fountain decorated with a significant sculpture. Students often gather at the steps of the fountain during lunch hour. This area is also used for student cookouts and other social functions.

A restaurant that serves the Health Sciences Campus is located in the Library Commons Building just off the courtyard area. The Library Commons Building also houses a lounge with vending machines, tables and chairs. In addition, vending machines are located in the basement of the Instructional Building.

All students have access to the Health Sciences Center Fitness Center ([Appendix MS-37.a*1](#)). The Fitness Center is open Monday through Friday 6 AM to 9:30 PM; Saturday 10 AM to 3 PM; and Sunday 1 PM to 6 PM. Elliptical trainers, treadmills, stationary bikes, recumbent bikes, and stair climbers comprise the complete line of 21 pieces of cardiovascular equipment at the Center. The Center also features a complete line of 15 pieces of selectorized weight training equipment as well as a complete free weight training area. A state-of-the-art aerobics studio and locker rooms complete the Center.

The Center is free to all students. Dependent ID's are available for spouses and children at a fee of \$20 per semester. The Center also offers aerobic and yoga classes at a fee of \$30 per semester. The schedule varies by semester and lasts 13 weeks.

b. Summarize the storage facilities for medical students' personal possessions and valuables (e.g., microscopes, computers, wallets/purses, clothing), both at the main or home campus and at other instructional sites/campuses.

Each first and second year student has a three-drawer desk in a unit lab with a lock, and microscope locker, as well as a full sized locker in the hallway outside of the unit labs. Students also share lockers in the dressing area adjacent to the gross anatomy lab. Students on clinical rotations may have lockers or secure areas for their belongings, but this is not consistent.

c. Provide data from the AAMC GQ or the AAMC CGQ, the independent student analysis, and or internal school surveys on student satisfaction with study and relaxation space.

The 2012 AAMC GQ indicates 81% of graduating students were satisfied or very satisfied with their study space (vs. 78 % nationally). Regarding relaxation space, 65% were satisfied or very satisfied (vs. 67% nationally).

END OF SECTION III.

SECTION IV. FACULTY

Part A: Key Quantitative Indicators

Indicate, in the table below, the **total number of faculty full-time equivalents (FTEs) in basic science departments and the number of full-time, part-time, and volunteer faculty** in basic science and clinical departments (Source: AAMC Longitudinal Statistical Summary Report [LSSR] or school data). Provide data for the 2012-2013 academic year, as available. Data provided from AAMC FACULTY ROSTER REPORTS as of 12/31 for years 2005-2011; 2012-2013 AY data is as of 11/1/12.

Academic Year	# of Faculty FTEs in Basic Science Departments	Full-Time Faculty			Part-Time Faculty			Volunteer Faculty		
		Basic Science	Clinical	Other*	Basic Science	Clinical	Other*	Basic Science	Clinical	Other*
2005-06	99.7	94	544	18	8	69	1	10	739	1
2006-07	100.87	97	571	24	3	61	2	12	879	1
2007-08	107.19	103	602	23	5	56	1	12	1003	1
2008-09	108.59	103	608	20	5	63	1	17	1072	0
2009-10	106.49	102	611	20	4	60	2	19	1144	0
2010-11	114.34	109	647	9	4	57	3	20	1185	0
2011-12	114.34	109	702	8	4	56	2	20	1183	1
2012-13	110.77	105	716	8	4	62	2	23	1145	1

*OTHER FACULTY BREAK DOWN – RRC** FTE is included with the basic FTE

Academic Year	# of Faculty FTEs in Research Resource Center **	Full-Time Faculty			Part-Time Faculty			Volunteer Faculty		
		JGBCC	Misc	RRC**	JGBCC	Misc	RRC**	JGBCC	Misc	RRC
2005-06	3.0	8	7	3	1	0	0	0	1	0
2006-07	3.0	9	12	3	1	1	0	0	1	0
2007-08	4.0	5	14	4	0	1	0	0	1	0
2008-09	3.0	4	13	3	0	1	0	0	0	0
2009-10	4.0	3	13	4	0	2	0	0	0	0
2010-11	4.0	3	2	4	0	3	0	0	0	0
2011-12	4.0	2	2	4	0	2	0	0	1	0
2012-13	4.0	2	2	4	0	2	0	0	1	0

SECTION IV. FACULTY

Part B: Narrative Data and Tables

NOTE THAT STANDARD FA-1 HAS BEEN REPLACED WITH STANDARD IS-16.

FA-2. A medical education program must have a sufficient number of faculty members in the subjects basic to medicine and in the clinical disciplines to meet the needs and missions of the program.

In determining the number of faculty needed for the medical education program, the program should consider the other responsibilities that its faculty may have in other academic programs and in patient care activities required to conduct meaningful clinical teaching across the continuum of medical education.

Complete the following tables for the indicated basic science and clinical departments. See the instructions for completing the database for the definition of full-time faculty.

a. Basic Science Departments

Faculty Numbers, **The figures below are as of 11/1/2012.**

Department*	Full-Time Faculty					Part-Time Faculty
	Professor	Associate Professor	Assistant Professor	Instructor/ Other	Vacant	
Anatomical Sciences & Neurobiology	13	4	4	0	2	1
Biochemistry & Molecular Biology	8	5	7	0	4	2
Microbiology & Immunology	9	5	6	0	1	0
Pharmacology & Toxicology	15	4	3	0	1	0
Physiology & Biophysics	9	5	8	0	3	1
Other – (Research Resource Center)	0	2	2	0	0	0

*Replace indicated department names with school-specific names, as needed.

**Report Pathology data here only if the school reported Pathology as a basic science department in the faculty counts for Part A of this database section.

Teaching Responsibilities, AY 2010-2011

Department**	Number of Courses Taught per Year*					
	Medical Students	Graduate Students	Dental Students	Nursing Students	Allied Health Students	Undergraduate (Baccalaureate) Students
Anatomical Sciences & Neurobiology	4	17	4		NA	1
Biochemistry & Molecular Biology	1	11	1	0	NA	3
Microbiology & Immunology	1	11	1		NA	
Pharmacology & Toxicology	1	12 + 1 ^a	1			2 ^b
Physiology & Biophysics	1	5	1	NA	NA	1
Other –Research Resource Center						

^aMolecular Toxicology has two course directors (one from Pharmacology; one from Biochemistry). It is cross-listed with both departments.

^bOne is an online pharmacology course that nursing students can take. The other is a dental hygiene course. They are both undergraduate but could be listed under Dental and Nursing.

*List only courses for which departmental faculty have primary and ongoing responsibility (e.g., for reporting final grades to the registrar)

** Replace indicated department names with names used at the school, as needed.

***Report Pathology data here only if the school reported Pathology as a basic science department in the faculty counts for Part A of this database section.

b. Clinical Departments

Faculty Numbers: These figures are as of 11/1/2012.

Department*	Full-Time Faculty					Part-Time	Volunteer
	Professor	Associate Professor	Assistant Professor	Instructor/ Other	Vacant		
Anesthesiology	4	6	10	2	2	1	38
Emergency Medicine	3	6	1	0	3	4	42
Family & Geriatric Medicine	5	12	8	0	3	6	204
Medicine	44	37	78	19	34	22	243
Neurosurgery	8	5	14	1	14	0	17
Neurology	3	5	11	1	7	1	15
Obstetrics/Gynecology	7	8	11	7	0	5	77
Ophthalmology & Visual Sciences	7	6	7	2	1	2	33
Orthopedic Surgery	5	2	4	0	1	1	63
Pathology & Laboratory Medicine	11	5	5	0	2	2	50
Pediatrics	27	51	70	14	41	11	138
Psychiatry & Behavioral Sciences	11	10	27	5	5	1	41
Radiation Oncology	2	2	4	0	0	1	1
Diagnostic Radiology	4	8	18	1	4	2	41
Surgery	33	11	35	9	10	3	121
Urology	1	0	3	0	0	0	20
Other (JGBCC, Office of Medical Education, Misc)	1	0	3	0	1	2	1

*Replace indicated department names with names used at the school, as needed.1

**Report data for these departments here only if the school reported them as clinical departments in the faculty counts for Part A of this database section.

Teaching Responsibilities

Department**	Number of Courses/Clerkship Rotations Taught per Year*					
	Medical Students from this Medical School	Dental Students	Nursing Students	Allied Health Students	Medical Students from Other Schools	Other Students (specify)
Anesthesiology	0	0	0	NA	0	0
Emergency Medicine	0	0	0	NA	0	0
Family Medicine- a,b,c	2	0	0	NA	0	0
Internal Medicine- a,b,c	2	0	0	NA	0	0
Neurology- ^b	1	0	0	NA	0	0
Obstetrics/ Gynecology- ^a	1	0	0	NA	0	0
Pathology**	1	0	0	NA	0	0
Pediatrics- ^{a,c}	1	0	0	NA	0	0
Psychiatry- ^b	1	0	0	NA	0	0
Surgery	2	0	0	NA	0	0
Other (specify)						

a—These departments are active in teaching selectives (required electives in the 4th year).

b—Family Medicine, Neurology, Internal Medicine, and Psychiatry faculty play significant roles in interdisciplinary required courses of Introduction to Clinical Medicine and Clinical Neuroscience.

c—Family Medicine, Internal Medicine, and Pediatrics

*List only courses or clerkships/clerkship rotations (for Canadian medical schools) for which departmental faculty have primary and ongoing responsibility (e.g., for reporting final grades to the registrar)

**Replace indicated department names with names used at the school, as needed.

***Report Pathology data here only if the school reported Pathology as a clinical department in the faculty counts for Part A of this database section.

c. List the courses or clerkship rotations where the medical school has had to make use of part-time and volunteer faculty, graduate students, or residents in medical student education to compensate for the decreased availability of full-time faculty members to participate in teaching.

The clinical clerkships have not had to make use of graduate students or residents to compensate for the decreased availability of full-time faculty members to participate in teaching. Residents participate actively in the teaching of medical students, but it is not because of decreased availability of faculty. However, the Family Medicine clerkship uses gratis faculty throughout the state, who work with our students when they are on their four-week AHEC rotation. In addition, the Obstetrics/Gynecology rotation does, on occasion, permit students to work with a gratis faculty member to fulfill the ambulatory component of this required rotation. The Neurology and Pediatrics clinical rotations also may assign students to complete the ambulatory component of these clerkships at a gratis faculty member's practice. A few part-time faculty have teaching assignments. Their participation is not because there is a decreased availability of full-time faculty to teach, but simply because they are part of the faculty.

d. List all faculty with substantial teaching responsibilities for courses or clerkships required for graduation who are on site for fewer than three months during an academic year.

None of the faculty with substantial teaching responsibilities for courses or clerkships required for graduation is on site for fewer than three months during an academic year.

e. Provide the amount of protected time that course and clerkship directors and other individuals with major leadership responsibilities for the educational program have for the noted activity (i.e., list the specific percent of their salaries covered by the medical school based on their roles in the educational program).

i. Percent protected time for preclinical course directors (include range if not consistent)

Rita Colella, PhD, Microanatomy	55%
Steven Ellis, PhD, Genetics and Molecular Medicine & Joseph Hersh, MD,	60%
Jeff Falcone, PhD, Physiology	10%
Theodore Feldmann, MD, Clinical Neurosciences ^a	65%
& Michael Sowell, M.D.	51%
Tayyeb Ayyoubi, MD, Pathology	30%
Charles Kodner, MD, Introduction to Clinical Medicine 1 & 2/ICC	30%
George Mower, PhD, Neurosciences	55%
Uldis Streips, PhD, Microbiology and Immunology	55%
Stuart Urbach, MD, History of Medicine; Assistant Director/Coordinator	60%
Allan Josephson, At the Intersection of Medicine and Religion,	10%
Walter Williams, MD/PhD, Pharmacology	20%
^a percentage includes other teaching responsibilities	60%

ii. Percent protected time for clerkship directors (include range if not consistent)

Sheldon Bond, MD, Surgery	25%
Rita Fleming, MD, Obstetrics/Gynecology	64%
Pradip Patel, MD, Pediatrics	70%
Donna Roberts, MD, Family Medicine	40%
Kristan Milam, MD, Medicine	60%
Anand Vaishnav, MD, Neurology	10%
Rebecca Tamas, MD, Psychiatry	51%

iii. Percent protected time for the chair of the curriculum committee (if not an administrator)

The Chair of the Educational Policy Committee (EPC) is the Associate Dean for Medical Education, M. Ann Shaw, MD. She has 80% of her time assigned to administration.

See also Part A for this section, and information for standard IS-12 in Section II: Educational Program for the M.D. Degree and standard ER-3 in Section V: Educational Resources.

FA-3. A person appointed to a faculty position in a medical education program must have demonstrated achievements commensurate with his or her academic rank.

FA-7. There must be clear policies in place at a medical education program for faculty appointment, renewal of appointment, promotion, granting of tenure, and dismissal that involve the faculty, the appropriate department heads, and the dean.

Provide a brief description of each faculty employment track.

a. Faculty Tracks

With the adoption of the *Policy for Promotion, Appointment and Tenure and for Periodic Career Review in the University of Louisville School of Medicine* in 2002 (PAT document – <http://louisville.edu/medschool/facultyaffairs/policies.html> and **Appendix FA-3/7.a*1**), which was subsequently revised in 2008 and 2011, multiple full-time faculty tracks were consolidated into a non-tenurable “term” track and a “probationary” or tenure track.

Tenure Track (Probationary appointment)

Probationary appointments are appointments of non-tenured, full-time faculty members who are eligible for tenure. With rare exceptions (officially approved leaves of absence or extenuating circumstances approved by the Provost), each faculty member eligible for tenure must be evaluated by the School of Medicine Promotion and Tenure Committee before the end of twelve months after five years of service applied to tenure; if tenure is granted, it usually occurs at the end of seven years. Transfers out of a probationary appointment into a non-tenurable (term track) appointment may be requested anytime, but must be complete prior to the time that the tenure review would begin, normally at the end of the fifth year of service. Transfers back to probationary status are then prohibited.

Term Track

Term-track faculty are full-time appointments for a stipulated, but renewable, contract of no more than three years. Term faculty appointments may be funded through general funds, restricted funds, or clinical revenues. Term faculty participate fully in all aspects of governance of the School of Medicine. Like faculty with probationary appointments or those with tenure, term faculty must meet specific criteria for appointment to a designated rank and are subject to annual and end of term reviews. After five years of service at the University of Louisville and with the achievement of the rank of Associate Professor or above, term faculty are eligible for a rolling contract, which is designed to recognize and reward their accomplishments. Rolling contracts last three years and are renewable each year for an additional three years. Faculty on term appointments may transfer to probationary appointments if they were not previously on a probationary appointment. Once transfer occurs, faculty may not return to term track.

b. Briefly summarize, by employment track, the institution-wide (medical school or parent university) policies and procedures for the appointment, renewal of appointment, promotion, granting of tenure (if applicable), and dismissal for all faculty members. Include a copy of the written appointment, re-appointment, tenure and promotion, and dismissal guidelines or the Web site URL at which these policies are posted.

The University of Louisville's policies and procedures for faculty are detailed in *The Redbook*, Chapter 4, at <http://louisville.edu/provost/redbook/chap4.html>.

The School of Medicine's *Policy for Promotion, Appointment and Tenure and for Periodic Career Review* adheres to *The Redbook* policies. The School of Medicine's document is available at <http://louisville.edu/medschool/facultyaffairs/policies.html> and **Appendix FA-3/7.a*1**.

The School of Medicine's policy mirrors the faculty policies in *The Redbook*.

The appointment process starts in the department with a faculty vote and chair recommendation to the dean. If advanced rank or tenure is offered, the process moves to the the SOM Promotion, Appointment and Tenure Committee (PAT) (an elected committee of senior faculty) for their consideration, vote and recommendation. Recommendations then move forward to the Dean, the Executive Vice President for Health Affairs (EVPHA), the University Provost, and finally to the Board of Trustees for action. In general, new faculty are hired at the Assistant Professor rank unless they are not board certified or come straight from graduate school, in which case they start as Instructors. Promotions follow the same process, starting with the faculty of the department and moving all the way to the Board of Trustees.

Term track contracts are renewed following a review of performance at the end of the contract. If the faculty member's performance is satisfactory, a renewal recommendation is made to the Dean. Term contracts may be a maximum of three years in duration, although rolling contracts, initially three years in duration but renewable every year for another three years, are available for Associate Professors on term appointments who have completed five years of service. The rolling contracts offer a reward for excellent performance and some additional measure of job security to deserving individuals.

Tenure is available to faculty regardless of their pay source or area of emphasis (teaching, research, or service); however, additional requirements for publishing and obtaining grants to support scholarship must be met. The faculty appointment and base university salary are the two significant guarantees of tenure.

Regardless of which track a faculty member follows, the promotion and tenure process is guided by a standardized annual work plan, developed in collaboration with the department chair and individualized for each faculty member (**Appendix FA-3/7.a*2**). The work plan focuses on a combination of research, teaching and/or service, each of which is assigned a percentage. Service may be further defined as clinical service and/or community service involving medical and/or basic science expertise. Promotion is earned when a faculty member demonstrates "excellence" in one area of the work plan and "proficiency" in all other areas. As of the 2011 revision of the School of Medicine document, excellence must be demonstrated in an area of the work plan that meets or exceeds a 20% effort, and is documented in the plan. Proficiency in teaching is required for promotion of all full-time faculty regardless of track, if it is a part of the annual work plan. As noted earlier, the promotion (or tenure) process begins with a vote at the departmental level, then moves to the PAT Committee, the Dean, the EVPHA, the Provost, and, finally, the Board of Trustees.

Definitions and examples of proficiency, excellence, scholarship and scholarly activity in the areas of research, teaching and service are available in Appendix A of the *Policy for Promotion, Appointment and Tenure and for Periodic Career Review in the University of Louisville School of Medicine* available at <http://louisville.edu/medschool/facultyaffairs/policies.html> and **Appendix FA3/7.a*1**. These definitions provide essential guideposts in evaluations for promotion and tenure, but do not constitute rigid formulae.

Promotion criteria for term and probationary faculty are identical, with two exceptions. First, probationary (tenure track) faculty must demonstrate scholarship whereas term faculty need not. Scholarship is defined as the creation of new knowledge and its dissemination and acceptance by peers. The rationale for this additional criterion is that tenure should only be awarded to those who have an independent, focused, self-sustaining program of scholarship or a leadership role in a focused, self-sustaining program of collaborative scholarship. In any given area of work assignment, the requirements for scholarship exceed those for proficiency in that the scholar plays a pivotal role in creating new knowledge and assumes primary responsibility for its dissemination. Second, the work plan of probationary faculty must include activities in all three areas of teaching, service, and research with a minimum 20% research work assignment.

Tenured Faculty - Periodic Career Review

Once probationary faculty are tenured, they undergo a Periodic Career Review (PCR) after every fifth year of service to evaluate their continuing contribution to the missions of the University, School of Medicine, and department. Candidates are evaluated as either "satisfactory: meeting School of Medicine criteria," or "unsatisfactory: not meeting School of Medicine criteria." Periodic Career Reviews are conducted in essentially the same fashion as promotion reviews, except that action stops with the Dean and does not go up to the Board of Trustees. Criteria for PCR are proficiency in all areas assigned on the annual work plan for the period under review and demonstrated regular scholarly activity (i.e., on average annually). Those faculty found unsatisfactory undergo a year of remediation guided by a remediation plan developed in collaboration with the department chair or division chief. The plan includes specific requirements to be met within one year and the resources that the institution will make available to the individual. At the end of the year, the faculty member has one year to demonstrate satisfactory performance and then undergoes a follow-up career review. If the faculty member again receives an unsatisfactory evaluation, the career record of performance is forwarded from the department and chair to the PAT and then to the Dean of the School of Medicine for appropriate disciplinary action, which may include proceedings for termination. If the faculty member receives a satisfactory evaluation at the end of the one year remediation, the next five-year review cycle begins with the following year.

Dismissal of faculty

Dismissal of tenured faculty must be based on cause as defined in the *The Redbook*, Sec. 4.5.3 and may occur only for one of these three reasons: incompetence, neglect or failure to perform one's duties, or immoral conduct. Dismissal must follow due process, including an automatically triggered Faculty Grievance Committee hearing.

Dismissal of probationary appointments, as defined in *The Redbook*, Sec. 4.5.2, requires notification of the faculty member in writing by the dean and, if the faculty member requests, he/she can be advised orally of circumstances that contributed to that decision. At the faculty member's request, the

professional, academic, budgetary, management, planning, or other factors given in explanation of the nonrenewal are confirmed in writing. The faculty member may request a review under provisions of the grievance procedure as stipulated in *The Redbook* Article, 4.4. Written notice that a probationary appointment is not to be renewed shall be given to a faculty member in advance of the expiration of the appointment, according to the following minimum periods of notice. In the first year of probationary service at the University of Louisville, not less than ninety days notice must be given before the expiration of the contract. During the second year of service, a minimum of six months notice must be given before the end of the second contract year at the University of Louisville. After two or more years of service at the University of Louisville, notice of termination shall be given at least twelve months before the expiration of the appointment.

Term contracts are honored until the end of the contract. Most of the School of Medicine's term contracts are renewed at the end of the term. However, on occasion a term contract is not renewed due to funding or other issues, including performance. The department makes the faculty member aware of the situation as early as possible.

c. Explain any variation in the policies across tracks or in the application of policies across departments.

The School of Medicine's PAT document applies school-wide and must be adhered to by all departments. Departments are allowed to submit for approval requirements more stringent than those that the school uses; however, to date this has not occurred. The only variation in requirements across tracks is the requirement for scholarship and extramural funding to support scholarship imposed for tenure. Scholarly activity is also now required for promotion of non-tenurable faculty to the rank of Associate Professor or Professor.

d. Describe how faculty members are informed about the various tracks and how they are assigned to a specific track. Note if a faculty member is able to change tracks at some point in his or her employment.

The initial appointment track is negotiated by the department chair and the faculty member based on the following considerations:

- Hiring plan that has been submitted to the dean for the fiscal year
- Advertised position that may or may not specify a particular track
- Qualifications of candidate (publications, funding, clinical experience, etc)
- Departmental, school and university needs
- Explanation by department chair and/or Associate Dean for Faculty Affairs
- Recommendation of department chair to departmental committee
- Review of candidate's credentials by departmental committee
- Affirmative vote by departmental faculty on track (term or tenure track)
- Affirmative vote by tenured faculty if immediate tenure is offered
- Recommendation to the School of Medicine Promotion, Appointment and Tenure Committee for advanced rank and tenure
- Academic review by Faculty Affairs Dean, financial review by the Office of the Vice President for Health Affairs/Chief Financial Officer and review by the Provost for immediate tenure
- Approval of Dean, the Executive Vice President for Health Affairs, the Provost and the Board of Trustees

Faculty are continually educated on the various tracks throughout their career. New faculty attend an orientation session that is offered annually. Each new faculty member receives an individualized

report that explains his or her track and the timelines relevant to the position. Each new faculty member has the opportunity to meet with the Associate Dean for Faculty Affairs at the beginning of his/her career and later concerning mid-tenure reviews, the possibility of switching tracks or promotion in rank or any other issues that may affect the faculty member's career.

Faculty on term appointments are eligible to transfer to probationary appointments (tenure track) if they were not previously on a probationary appointment and if the advertisement used to hire the individual stated this possibility. If a faculty member is switching to tenure track, the departmental faculty must vote on this action. The switch also has to be approved by the Provost's Office. Faculty may request to transfer out of a probationary appointment (tenure track) to a non-tenurable appointment anytime but must complete this transfer prior to the time that the tenure review would begin, which is normally at the end of the fifth year of service. Transfers back to probationary status are then prohibited.

FA-4. A member of the faculty in a medical education program must have the capability and continued commitment to be an effective teacher.

Effective teaching requires knowledge of the discipline and an understanding of curricular design and development, curricular evaluation, and methods of instruction. Faculty members involved in teaching, course planning, and curricular evaluation should possess or have ready access to expertise in teaching methods, curricular development, program evaluation, and medical student assessment. Such expertise may be supplied by an office of medical education or by faculty and staff members with backgrounds in educational science.

Faculty involved in the development and implementation of a course, clerkship rotation, or larger curricular unit should be able to design the learning activities and corresponding student assessment and program evaluation methods in a manner consistent with sound educational principles and the institution's stated educational objectives.

A community physician appointed to the faculty of a medical education program, on a part-time basis or as a volunteer, should be an effective teacher, serve as a role model for medical students, and provide insight into contemporary methods of providing patient care.

Among the types of evidence indicating compliance with this standard are the following:

- Documented participation of the faculty member in professional development activities related specifically to teaching and assessment.
- Attendance at regional or national meetings on educational affairs.
- Evidence that the faculty member's knowledge of his or her discipline is current.

FA-11. A medical education program must provide opportunities for professional development to each faculty member to enhance his or her skills and leadership abilities in education and research.

a. Describe any centralized or departmental activities to assist faculty members in improving their skills in teaching and assessing medical students. For the formal programs that were offered, provide the number of faculty who participated in such activities during the most recently completed academic year and the sources of funding available to support such activities.

Opportunities for faculty members seeking to improve their skills teaching and assessing medical students are available at the University, HSC, medical school and department levels. These opportunities include:

Delphi Center for Teaching and Learning

The University's Delphi Center for Teaching and Learning (<http://Louisville.edu/delphi>) offers programs focused on teaching and learning. The annual Celebration of Teaching and Learning features a nationally known speaker and a full day of workshops, demonstrations and keynote speakers; in AY 2010-2011, the keynote speaker presented a pre-Celebration session on the HSC campus, "A Pedagogy of Formation for the Health Professions"; 17 medical school faculty attended that session. In addition, the Delphi Center funds and provides "Dine and Discover" lunch sessions at its HSC satellite site housed in the Instructional Building, for example, "How to Structure & Assess Team Projects that Promote Effective Student Teamwork" and "Guiding Students in Thinking About Their Own Thinking." Finally, the schools of Medicine, Nursing, Dentistry, and Public Health/Information Sciences now partner with the Delphi Center to offer faculty development programs for all HSC faculty. In AY 2010-2011, Dean Parmalee from Wright State University, an expert in Team Based Learning, conducted two workshops; 53 medical school faculty attended one or both of these workshops. (Appendix ED-30.b*1) This

program and others offered through this partnership are funded by the various partners. The Delphi Center has locations in the Ekstrom Library and the Kornhauser Library and on the Shelby Campus.

The Office of Medical Education's Medical Education and Research Unit (MERU)

MERU offers faculty development opportunities focused on teaching and learning. For example, Grand Rounds for HSC Educators is offered 3-4 times annually; in AY 2010-2011, the following topics were presented: "How to Develop an SP Case"; Increasing Medical Residents Board Pass Rates: The Case of Intrusive Advising"; and "Making the Connection: Strategies to Engage the Multigenerational Classroom." Approximately 25 medical school faculty attend each of these Grand Rounds ([Appendix FA-4/11.a*1](#)). MERU also offers a confidential Teaching Consultation Service (TCS) ([Appendix FA-4/11.a*2](#)). In addition, the medical school offers a graduate certificate program, Teaching in Healthcare Programs, in partnership with the College of Education and Human Learning. This four-course certificate program (12 total credit hours) is directed by the MERU. Each course is team taught with faculty drawn from the College of Education as well as the Schools of Nursing, Dentistry, Medicine and Public Health/Information Sciences. The MERU Director also teaches in these courses. Faculty may take one or more of the certificate program courses, all of which are delivered on site at the HSC campus using a blended face-to-face and web-based model. Eighteen medical school faculty have completed one or more courses in the certificate program; six faculty have earned the certificate. In AY 2012-2013, medical school faculty will be able to earn a Master's Degree with an emphasis on healthcare education using the certificate program courses as the core of this degree. Faculty receive tuition remission for all of the certificate program courses. All MERU programs are funded by the Office of Medical Education.

Leadership Development Program

The School of Medicine has designed a leadership development program aimed at enhancing faculty vitality and success in academic leadership, while advancing the school's mission of teaching, research and clinical care. The program trains 10 to 15 faculty members in eight monthly three-hour workshops with explicit learning objectives that include both didactic and hands-on components. Nominations to the program are solicited through the department chairs, who are also asked to provide release for the faculty member's participation. The ideal nominee would already be in a leadership position in the department (e.g., division chief, residency, clerkship or course director, associate/vice chair or director of a research program).

Departmental Opportunities

Some of the departments offer their own faculty development programs focused on teaching and learning. For example, the Department of Pathology holds an annual education retreat at the end of the second year Pathology course; the retreat consists of faculty development and a review of the course. The Department of Family and Geriatric Medicine hosts a monthly faculty development program, and the Department of Pediatrics offers several faculty development programs and an annual endowed Grand Rounds focused on teaching and learning. Departmental programs are funded by the departments.

b. Describe the elements of faculty teaching skills (e.g., content mastery, ability to lecture or lead a small group, professionalism) that are formally evaluated by medical students. Summarize the methods used by departments or the medical school to evaluate individual faculty teaching efforts (e.g., student course evaluations, peer review, focus group meetings with students, etc.). Describe the means by which the results of such evaluations are communicated to faculty.

Students evaluate faculty teaching skills at both general and individual levels. These evaluations include:

EPC Course and Clerkship Evaluation System: Student feedback about teaching is part of the EPC course and clerkship evaluation system. All students are required to submit an evaluation using the school's web-based system ([Appendix ED-25.a*1](#) and [Appendix ED-35.b*2](#)). This web-based questionnaire contains global questions about the content mastery of the teaching faculty, the quality of the teaching, and the overall effectiveness of the teaching. In addition, the EPC evaluation asks the students to evaluate the individual teaching faculty. Students respond to Likert-scale questions related to teaching for individual faculty and comment about the faculty member's "teaching strengths" and provide "suggestions for improvement." Students must complete an evaluation for at least one faculty member, but most complete more. The results of the individual teaching evaluations are available to the course and clerkship directors, the department chairs, and the Associate Dean for Faculty Affairs. The OME also sends individual faculty an email with a link to the results of their own evaluations. The EPC is currently discussing changes to the individual faculty evaluations of teaching with the goal of providing faculty with more feedback about their teaching.

Course-Based Evaluations of Teaching: At least one preclinical course, Pathology, requires that students evaluate each lecture, including the quality of the teaching for that lecture. Students are assigned randomly to the lectures and receive a small amount of credit toward the course grade for completing the evaluation. Course directors also may add questions to the EPC required course evaluation focused on teaching. Also, during AY 2011-2012 all second year students participated in weekly OME evaluations about the new second year course schedule and provided feedback about individual faculty teaching skills as part of those evaluations; students answered three questions about the faculty member's teaching and commented on "teaching strengths" and "suggestions for improvement" ([Appendix ED-33.g*3](#) and [Appendix ED-33.g*4](#)). Each week approximately 25 students (one unit lab) were assigned to complete the evaluation on a rotating basis. Finally, first and second year students evaluate the teaching of their Interdisciplinary Clinical Cases (ICC) facilitators, all of whom are medical school faculty. The results of all student evaluations of teaching are distributed directly to the faculty member.

Department-Based Evaluations of Teaching (Peer Review): The School of Medicine's *Policy for Promotion, Appointment and Tenure and for Periodic Career Review* requires "peer reviews that demonstrate satisfactory teaching performance." Each department follows its own schedule for obtaining peer reviews of teaching. In most departments, a Summative Teaching Evaluation form is completed by a peer reviewer after observing a lecture, resident training, or laboratory training (see [Appendix ED-33.g*5](#) for examples of departmental peer teaching evaluation forms.) However, only one Summative Teaching Evaluation form is required for promotion/tenure review or periodic career reviews. For these actions, the Summative Teaching Evaluation form is reviewed by the faculty in the department voting on the promotion/tenure or periodic career review, the PAT committee, the Associate Dean for Faculty Affairs and the Dean.

Focus Groups: Focus groups are not conducted on a regular basis; however, the EPC did ask the OME to conduct focus groups with second year students in AY 2009-2010 to gather more

detailed information about the curriculum and the teaching in the Pathology course. The focus groups were prompted by multiple major concerns expressed by student leaders, which were brought to the Associate Dean for Medical Education, who shared these concerns with the EPC. The results of the focus groups were shared with the EPC and the Pathology course director, who then shared the results with the course faculty (Appendix ED-47.a*1).

c. Describe the means by which any problems identified by such evaluations are addressed. Describe the resources that are available to support the remediation of deficits in faculty teaching skills.

Remediation of deficits in faculty teaching skills is generally accomplished at the department level, although the impetus for the remediation may come either from the department or the Educational Policy Committee. In most cases where the EPC identifies a need for remediation for a particular faculty member, the Chair of the EPC makes this request as part of the written report sent to the course or clerkship director (and copied to the department chair) after the annual evaluation of the course or clerkship is completed. Generally, the EPC would request that the department provide the needed faculty development/assistance either through peer consultation at the department level or through a referral to the Teaching Consultation Services (TCS), run by the Director of the OME's Medical Education Research Unit (MERU). For example, during AY 2010-2011, the EPC review of the Neurosciences course resulted in the recommendation that two of the new faculty be directed to the Teaching Consultation Service (TCS) offered by MERU. Also, at the direction of the EPC, in June 2009, the Office of Medical Education funded the costs involved with bringing in a nationally respected Pathology educator to consult with the faculty teaching in the second year Pathology course and to serve as the keynote speaker/trainer at the Department of Pathology's annual education retreat, where he conducted a workshop on effective teaching. In addition to the TCS, the Delphi Center for Teaching and Learning has an HSC satellite site where faculty can consult and seek training to improve teaching skills. Also, faculty seeking to remediate deficits in teaching skills may enroll in the College Teaching course that is offered tuition free to medical school faculty on the HSC campus as part of the graduate certificate program, Teaching in Healthcare Professions.

d. Describe any centralized or departmental activities to assist faculty members in enhancing their skills in research and grant procurement. Include the number of faculty who participated in such activities during the most recently completed academic year and the sources of funding available to support such activities.

At the University level, the Office of the Executive Vice President for Research and Innovation supports research, scholarship, and creative activities and assists faculty and staff in obtaining intramural and extramural support. The EVPRI website is available at <http://louisville.edu/research/> or see Appendix FA-4/11.d*1. Some of the offices that provide assistance to faculty are the Sponsored Programs Development Office, which assists investigators in seeking funding for research and creative activities and provides support for successful proposal development; the Office of Grants Management; the Office of Industry Contracts; the Human Studies Protection Program; and the Office of Technology Transfer.

The Office of the Executive Vice President for Research and Innovation (EVPRI) offers an Intramural Research Incentive Grant (IRIG) program (Appendix FA-4/11.d*2). The EVPRI Office also offers individual assistance on grant writing, including the opportunity to review successful grant proposals. Additionally, the EVPRI and the Dean have provided support for research through incentives and intramural grant programs. One such program is through the School of Medicine

Research Committee. The purpose of this program is to enhance the research productivity of medical school faculty by funding new projects that may lead to competitive extramural funding or by providing interim support for established investigators who have lost funding. Other support includes matching funds for selected research grants and funding to recruit departmental chairs and endowed chairs. Salary release money is returned to departments to enhance their research efforts. The Offices of the Executive Vice President for Research and Innovation (EVPRI) and the Vice Dean for Research of the School of Medicine jointly hold quarterly research forums focusing on grant procurement and sponsor seminars on cutting-edge research technologies. These forums normally have 20-40 faculty members in attendance. In addition, most departments have an active research forum or seminar series that brings external speakers to the campus. Also, a grants workshop is offered each year as part of Research!Louisville ([Appendix FA-4/11.d*3](#)). The University has a standard sabbatical policy and some faculty utilize month-long leaves of absence to pursue technology development at other institutions or agencies. The funds for these programs come from the EVPRI/Dean's Offices for the forums or from departmental or faculty research account funds. Further information on research opportunities is available at the website of the [Health Sciences Research Office](#) ([Appendix FA-4/11.d*4](#)).

At the HSC/SOM level, the HSC Research Office offers assistance with designing and conducting clinical research and, upon request from faculty, will provide grant writing assistance to those seeking extramural funding. There is also an ascending series of opportunities for faculty to gain training and mentoring in research methodologies, publication and grant writing. The most informal of these is an annual series of workshops organized by the HSC Research Office on "Getting Published" and "Writing Your First Grant." The grant writer's workshop held annually during Research!Louisville and led by faculty on study sections draws a crowd of about 30 participants each for both morning and afternoon sessions. The Department of Pediatrics also offers a semester-long course for its residents, fellows and new faculty: "Academic Life, Research Design and Statistics"; the Dean's Office supports faculty outside of Pediatrics who want to attend. The School of Public Health and Information Sciences offers more in-depth opportunities for advancement through its Clinical Research, Epidemiology, and Statistics Training certificate program (CREST) and its Masters and PhD programs in public health, statistics and epidemiology, which involve both didactic instruction and independent research under the direction of a faculty member. Since 2007, 29 medical school faculty have earned a Master's of Science degree in Clinical Investigation Sciences and 2 faculty have earned the CREST professional certificate.

See also information for standard ED-30 in Section II: Educational Program for the M.D. Degree and standard FA-5 in this section.

FA-5. A faculty member in a medical education program should have a commitment to continuing scholarly productivity that is characteristic of an institution of higher learning.

a. Provide the following data (see next page), by department (basic science and clinical), for the most recently completed year (academic or calendar year, whichever is used in the medical school's accounting of faculty scholarly efforts).

Department*	Number of:		Number of Departmental Faculty Members Who Are:		
	Articles in Peer-reviewed Journals*	Books and Book Chapters Published*	Members of National Study Sections or Committees*	Journal Editors or Members of Editorial Boards*	PIs on Extramural Grants**
Anatomical Sciences & Neurobiology	48		3 (7)***	7 (9)	9
Anesthesiology	7		2	4 (6)	1
Biochemistry & Molecular Biology	24		5 (14)	3(6)	11
Diagnostic Radiology	13		2 (3)	4 (7)	1
Dermatology	1		0	2 (11)	
Emergency Medicine	15		0	2 (5)	1
Family & Geriatric Medicine	15	1	3	4 (6)	2
Internal Medicine	168	3	18 (32)	20 (58)	50
Microbiology & Immunology	13		4	7 (20)	11
Neurological Surgery	14		7 (21)	4 (8)	6
Neurology	30		4 (9)	5 (17)	1
Obstetrics & Gynecology	24	1	2 (4)	5 (8)	4
Ophthalmology & Visual Sciences	36		2	5 (9)	11
Orthopedic Surgery	3		1	4 (15)	2
Pathology & Laboratory Medicine	27	2	2	12	4
Pediatrics	50	1	2 (4)	8 (17)	9
Pharmacology & Toxicology	41		4 (6)	4 (16)	10
Physiology & Biophysics	35		4 (10)	3 (9)	5
Psychiatry & Behavioral Sciences	44	1	1	7 (41)	4
Radiation Oncology	1		0	3 (5)	1
Surgery	153		8 (43)	11 (37)	12
Urology	1		1	3 (6)	

*Calendar year 2010;

** Academic Year (July 1, 2010-June 30, 2011) as sources for these data from State, Private Foundation and Federal granting agencies

***Numbers in parenthesis indicate total number of committees, boards, etc., i.e. a faculty member having multiple positions

b. Describe the means by which faculty scholarship is fostered in the medical school. Is there a formal mentorship program for junior faculty to assist them in their development as scholars? Note any informal opportunities for mentorship or other types of support for faculty scholarly activities.

Faculty scholarship is fostered with state-of-the-art research facilities, increased space, and formal and informal mentoring programs. The School of Medicine's commitment to biomedical research is evidenced through the increase in research space over the years. In 2009, the university opened the Clinical and Translational Research Institute (CTSI), which supports the region's growing oncology research in association with the James Graham Brown Cancer Center. The facility is 287,000 gross sq feet and houses five floors of biomedical research labs including four BL3 labs and is certified as a LEEDS facility. The goals of the CTSI are to expand and fully integrate the "academic home" for clinical and translational research; create a multidisciplinary program in research education and career development, utilizing advanced degrees that train the next generation of clinical and translational investigators; provide the necessary clinical research resources and translational technologies, including support in areas such as bioinformatics, biostatistics and ethics; and create novel clinical and translational research.

The School of Medicine annually reviews research space allocations and measures productivity based upon research funding and the quality of academic programs in the laboratory based research space at the school. Research space assignments are benchmarked against current productivity standards, unique research requirements, and identified strategic research priorities. Multi-year productivity measures are reviewed (typically three-year averages) to accommodate funding fluctuations.

The School of Medicine offers a formal mentoring program to all junior faculty when they attend the School of Medicine's New Faculty Orientation in September. In addition to the new faculty, any other interested junior faculty are contacted by email at this time and they may apply for the mentoring program also. During the 2011 calendar year, 17 junior faculty (protégés) were paired with 17 mentors. The protégés and their mentors meet a minimum of four times throughout the year. Both protégés and mentors are invited to workshops early in the year that address topics such as starting a research career, understanding the promotion and tenure process, balancing professional and home responsibilities, and balancing clinical and research responsibilities. In addition to the formal mentoring program, there are numerous instances of informal mentoring occurring at the departmental and interdepartmental levels.

Scholarship focused on teaching and learning continues to grow and is now supported by the School of Medicine's Policy on Promotion, Appointment and Tenure. Faculty interested in pursuing scholarship in teaching can obtain assistance from the Medical Education Research Unit (MERU), which is a unit in the Office of Medical Education. MERU provides both short-term and long-term assistance in all phases of the research process, including framing research questions, designing research and instructional validation studies, obtaining IRB approval, submitting grants, managing research projects, and analyzing quantitative and qualitative data. Additional information is available on the MERU website at <http://louisville.edu/medschool/researchunit>, Appendix FA-5.b*1.

c. Describe the institution's expectations for faculty scholarship. Is documentation of scholarship required for retention and promotion of all or some full-time faculty?

The expectations for faculty scholarship and scholarly activity are available in the School of Medicine's *Policy for Promotion, Appointment and Tenure and for Periodic Career Review*, Appendix A, Definitions, and Examples of Proficiency, Excellence and Scholarship, <http://louisville.edu/medschool/facultydevelopment/policies.html>, Appendix FA-3/7.a*1.

Scholarship is "Required of all probationary (pre-tenure) and tenured faculty for promotion in rank." "Scholarship is defined . . . as the creation of new knowledge and the dissemination and acceptance of it by peers. Tenure is awarded to those who have an independent, focused, self-sustaining program of scholarship or a leadership role in a focused, self-sustaining program of collaborative scholarship. In any given area, the requirements for scholarship exceed those for proficiency in that the scholar plays a pivotal role in the creation of new knowledge and assumes primary responsibility for its dissemination."

Examples of ways to demonstrate peer acceptance of disseminated scholarship follow:

"Journal articles, papers on pedagogic issues, review articles, case reports, clinical outcomes studies, educational outcomes studies, electronic dissemination (e.g., computer programs, CD-ROM, videos, web-based), textbooks, book chapters, technology transfer, development of new protocols that are widely accepted, development of teaching tools, curricula or curricular models, study guides, computer-aided tools, new evaluation methodologies, well subscribed faculty development programs, workbooks adopted by other institutions and development of patents.

"Funding also supports peer acceptance and is necessary for sustaining the program of scholarship. Sources include but are not limited to research grants, training grants, clinical contracts, investigational drug studies, funded teaching initiatives, or cooperative industry agreements.

"The majority of the documentation of peer acceptance should be through traditional peer-review publications.

Scholarship need only be demonstrated in one area for tenure and/or promotion on tenure track."

Scholarly activity is also required. "Scholarly activity must be demonstrated regularly (i.e., on average annually) for a satisfactory periodic career review for tenured faculty and is also required for promotion of non-tenurable faculty to the rank of Associate Professor or Professor."

"Scholarly activity is defined as those activities in which faculty take a scholarly approach to education, clinical, and/or research activities. These occur when faculty systematically design, implement, access or redesign educational, clinical, or research activities, drawing from the scientific literature and "best practices" in the field. Documentation describes how the activity was informed by the literature and/or best practices.

"Examples of scholarly activity include, but are not limited to the following:

- a. Scholarship as defined in Appendix A.III.I
- b. Substantial contribution to a local or national clinical trial (patient recruitments, data collection, other documentable contributions that are important but do not result in authorship)

- c. Service as a board reviewer or writing board review questions
- d. Active service on a regional or national committee or a board related to clinical care, education, or research
- e. Intramural or extramural funding for a clinical or educational project
- f. Leadership role in a local, regional, or national conference or in a multidisciplinary intramural conference on education or clinical care
- g. Evidence-based development or revision of organizational policy
- h. Poster or oral presentation at a local, regional, or national meeting
- i. Incorporation of new teaching technology or an evidence-based educational module into a curriculum
- j. Leadership or substantial role in a quality improvement project that documents effectiveness or leads to improved processes, clinical care, or outcomes
- k. Leadership role in the development or revision of evidence-based clinical practice procedures, guidelines, or treatment algorithms (e.g., order sets)
- l. Evidence-based consultation to public officials at community, regional, state, or national venues”

See also information for standard IS-13 in Section I: Institutional Setting and Part A, item (e.) in Section V: Educational Resources.

FA-8. A medical education program should have policies in place that deal with circumstances in which the private interests of a faculty or staff member may be in conflict with his or her official institutional or programmatic responsibilities.

a. Check each area in which the medical school or the university has a faculty conflict of interest policy. Include a copy of each policy in the Appendix or provide the Web site URL at which the policy can be viewed.

x	Conflict of interest in research: *
x	Conflict of private interests of faculty/staff with academic responsibilities:*
x	Conflict of interest in commercial support of continuing medical education:*

* COI Policies - <http://louisville.edu/conflictinterest/policies/policies-and-procedures.html>, For all three of these policies, see *Addressing Potential Individual COI Policy and Procedures* and *Addressing Potential Institutional COI Policy and Procedures* links on this web page, and **Appendix IS-5/6.f*2** and **Appendix IS-5/6.f*3**.

b. Summarize the institutional efforts or programs that address research ethics, scientific misconduct, conflicts of interest, and human subjects protection. Is participation in such programs required or optional for faculty?

Research Ethics:

The University of Louisville Responsible Conduct of Research Policy states:

It is the policy of the University of Louisville that research carried out under its auspices is distinguished by the highest standards of integrity and ethical behavior. The University of Louisville promotes responsible conduct by practicing high standards of ethics and requiring accountability in the development, execution, performance and dissemination of research results. This policy applies to faculty, staff, students and visiting scholars conducting research under the auspices of the University, hereafter referred to as researchers.

Regarding training in the Responsible Conduct of Research (RCR), institutional policy further states:

All researchers who are required by their funding sponsors to maintain certification in the Responsible Conduct of Research must do so. The Institution and its officials are required to provide high quality training opportunities in a timely and efficient manner in order to assist researchers in meeting this responsibility.

Scientific Misconduct:

Formal policies exist for Scientific Misconduct. In addition, U of L also has a policy on ethical conduct and reporting of research and a model procedure for resolving disputes in research and scholarly activity (for issues not rising to the level of the federal definition of research misconduct) These documents are posted at:

<http://louisville.edu/research/researchintegrity/research-misconduct> (**Appendix FA-8.b*1**)

Conflicts of Interest:

Formal policies and procedures to cover individual and institutional COI in the areas of academics, business, clinical, research and institutional. All employees (including faculty) have annual disclosure requirements pursuant to these policies. Disclosures are collected by the COI Office and reviewed. When warranted, the COI Office refers cases to the Conflict Review Board for management plan recommendations. Management plans are then implemented with unit/departmental oversight. Training specific to COI matters is required for all researchers every four years.

Human Subjects:

U of L is AAHRPP accredited. In addition, U of L instituted a human subject research training requirement in 2000. All researchers involved in human subject research must complete training every two years.

c. Describe the means by which adherence to the conflict of interest policies is monitored.

As delineated in the Addressing Potential Individual Conflict of Interest (COI) Policy and Procedures, found at <http://louisville.edu/conflictinterest/policies/policies-and-procedures.html>, external interests and activities are reported on the Attestation and Disclosure Form (ADF). Covered individuals, including University employees and individuals engaged in research activities, are required to complete the ADF annually, throughout their Term of Appointment. Term of Appointment means the duration of an individual's University employment, status as student or affiliation with the institution. Special circumstances also exist which might require the filing of an updated ADF during the course of the year. The updated ADF must be filed within 30 calendar days of a change. The reporting period for the ADF includes the previous 12 months and the coming 12 months. ADF forms are obtained from and managed by the COI Office. An online web portal for distribution, receipt, and management of ADFs is currently under development with expected implementation by the end of calendar 2012.

The COI Office performs the initial review of submitted ADFs and may refer appropriate cases to a working committee, the Conflict Review Board (CRB), for review and management determination. Once a management plan is approved by the COI Officer, the COI Office will send the approved plan to the Appropriate Authority for implementation. The approved management plan will include a timeline for implementation and any additional management requirements to address the identified conflict of interest. University faculty members are also required to collaborate with his or her departmental chair to develop an annual work plan which will be submitted to the dean for approval. Conflict of interest addressed within the respective faculty member's annual work plan. If a faculty member has an active COI management plan, they are required to represent whether their plan is current and whether modifications are necessary. If the plan has to be changed, then the faculty member is required to make those changes within 30 days.

In addition, possible conflicts of interest may be discussed with or reported to the direct supervisor, the COI Office at 852-7612 or COIOFF@louisville.edu, or via the ADF. If a faculty

member is uncomfortable using any of the above noted methods for reporting a conflict of interest issue, the [Compliance Helpline](#) is available as an alternative method of reporting concerns by calling (24 hours a day, seven days a week) toll free at 1-877-852-1167. The Compliance Helpline is provided by a third party vendor and managed by the Institutional Compliance Office (see <http://louisville.edu/compliance>). All aspects of University regulatory compliance may be addressed using the Compliance Helpline with a scope that includes, but is not limited to: Research; Medical; Privacy/Information Security; Conflict of Interest; Environmental Health and Safety; Financial Transactions; Human Resources; and Athletics. A trained risk specialist documents the information from all electronic and phone contacts and generates a written report to the Institutional Compliance Office for follow-up. (Robin L. Wilcox, CPA, CHC, CCEP, Institutional Compliance Officer & Interim Conflict of Interest Officer, University of Louisville).

FA-9. A medical education program should provide each faculty member with written information about his or her term of appointment, responsibilities, lines of communication, privileges and benefits, and, if relevant, the policy on practice earnings.

a. Describe how faculty members are notified about the following items:

i. Term and conditions of employment

Faculty are provided an initial letter of offer signed by the Chair and the Dean that outlines their salary, the term of their contract, and their responsibilities (Appendix FA-9.a*1). In conjunction with annual reviews, work assignments and goals for the following year are negotiated with the Chair and provided in written form for review by the faculty dean

ii. Benefits

All new employees of the university attend a one-day orientation session that addresses benefits, retirement, etc. The website for the one-day orientation is <http://louisville.edu/hr/employment/newemployees/orientation.html> (Appendix FA-9.a*2).

iii. Compensation, including policies on practice earnings

University compensation is outlined in the letter of offer, mentioned earlier. Because each clinical department has at least one private practice enterprise (PSC), the PSC provides a separate letter to the faculty. Annual letters regarding raises are also provided.

b. Describe the means by which and the times at which newly hired and existing faculty members are informed about their responsibilities in teaching, research, and, where appropriate, patient care.

Faculty are given an annual work assignment when their employment begins at the School of Medicine. Each calendar year thereafter, each faculty member negotiates an annual work assignment with his/her chair (see <http://louisville.edu/medschool/facultyaffairs/lcme/annual-work-plan.html> and Appendix FA-9.b*1). This work assignment is used at the end of the year as the basis for the annual merit raise evaluation. The work assignment percentages also provide the basis for the promotion and tenure reviews. The system is designed to provide a seamless interface between yearly expectations, yearly evaluations, promotional evaluations, and periodic career-type evaluations.

c. If there is a faculty handbook, include a copy or provide the Web site URL at which the handbook can be viewed.

The University is in the process of developing a faculty handbook for all colleges and schools.

In lieu of a faculty handbook, the School of Medicine's Associate Dean for Faculty Affairs conducts an annual New Faculty Orientation, and the materials distributed at the Orientation

are posted directly to the Faculty Affairs website or through a link at the website <https://louisville.edu/medschool/facultydevelopment/welcome> This website provides links to other offices/programs across the university that can provide assistance to new faculty.

At the four-hour New Faculty Orientation session, faculty receive an individualized orientation packet, and the packet's contents are explained by faculty experts from each of the areas. Six to nine months following the New Faculty Orientation at the School of Medicine, each new faculty member meets individually with the Associate Dean for Faculty Affairs to discuss further terms of appointment, policies, research, and faculty concerns.

The New Faculty Orientation packet includes a letter of welcome and the following informational materials:

- Individualized outline of the faculty member's appointment title, appointment track, ending date if term track, and dates for tenure review if tenure track
- The School of Medicine Organizational Chart – outlines lines of communications and responsibility (see Section I. Institutional Setting, page following IS-11)
- Sample of mid-tenure review – discussion of mid-tenure review
- University faculty personnel policies (see *The Redbook*, Chapter 4)
- “Bylaws and Rules of the School of Medicine, University of Louisville” and Appendix ([Appendix IS-4.a*1](#) and [Appendix IS-4.a*2](#))
- “Policy for Promotion, Appointment and Tenure and for Periodic Career Review in the University of Louisville School of Medicine” (PAT document) ([Appendix FA-3/7.a*1](#))
- “School of Medicine Policies for Annual Reviews and Salary Increases Based Upon Performance (SIBUP)” ([Appendix FA-9.c*1](#))
- Policy on practice earnings and the Dean's tax (The Professional Practice Plan was last amended on April 14, 2011) ([Appendix IS-11.g*1](#))
- Research Packet includes:
 - Guidelines for Ethical Conduct in Research (see FA-8)
 - Conflict of Interest Office
 - Research Incentive Plan
 - Research at the University of Louisville
 - K Kiosk-Information about NIH Career Development Awards
 - NIH Career Development (K) Awards
 - Insider's Guide to Peer Review for Applicants
- Additional Information Packet includes:
 - Article, “Finding an Academic Mentor”
 - The Chronicle of Higher Education; Protégé Application
 - Code of Conduct
 - UofL Health Care Policy on Vendors
 - Student Mistreatment Policy
 - Individual Development Plan
 - Leave policies (medical, parental, FMLA, sabbatical and entrepreneurial leave)
 - Faculty guidance for emergencies brochure
 - CardSafety
 - Early Learning Campus
 - Human Development Brochure (Employee Assistance Program)
 - Working with the HSC Office of Communications and Advancement regarding fund raising.etc.

- Teaching Matters: Medical Student Education
- Information about the School's Educational Objectives and EPC Teaching evaluations.

NOTE: Given the bulk of the New Faculty Orientation packet, we have compiled a sample packet for review during the April site visit, rather than include it as an appendix.

FA-10. A faculty member of a medical education program should receive regularly scheduled feedback on his or her academic performance and progress toward promotion and, when applicable, tenure.

Feedback should be provided by departmental leadership or, if relevant, by other programmatic or institutional leadership.

a. Briefly describe any medical school or university policies ensuring that faculty members receive periodic feedback on their performance and their progress toward promotion and, if relevant, tenure.

Both annual and mid-tenure reviews are required by the University. These processes are described in FA-10.b.

b. Describe the times at which and the means by which faculty members receive formal feedback from departmental leaders (i.e., the chair or division or section chief) on their academic performance and their progress toward promotion and, if relevant, tenure.

Two types of review provide formative feedback. First, every faculty member receives an annual evaluation of progress at a meeting to discuss and finalize the next annual work assignment. These meetings involve the Chairs or, in some large departments, the Division Chiefs. The annual evaluation also provides the basis for the annual performance-based merit raise.

The second type of formative feedback is the mid-tenure review, for pre-tenured faculty only. This review mimics tenure reviews in the department; the results are summarized by the Chair, shared with the faculty member, and forwarded to the Associate Dean for Faculty Affairs. The Associate Dean for Faculty Affairs then provides a detailed response to the Chair, which is copied to the faculty member. This formative evaluation process provides feedback from an institutional perspective. It is a substantive review that is meant to provide direct, honest, feedback on progress toward tenure. The mid-tenure review is conducted early enough (two years into the faculty appointment) to allow for mid-course corrections.

See also information for standard FA-4 and FA-5.

FA-6. The faculty of a medical education program must make decisions regarding the admission, promotion, and graduation of its medical students and must provide academic and career counseling for medical students.

FA-12. At a medical education program, the dean and a committee of the faculty should determine policies for the program.

The committee that, with the dean, determines policies for the medical education program typically consists of the heads of major departments and may be organized in any manner that brings reasonable and appropriate faculty influence into the governance and policymaking processes of the program.

FA-13. A medical education program should ensure that there are mechanisms in place for direct faculty involvement in decisions related to the program.

Important areas in which direct faculty involvement is expected include admissions, curriculum development and evaluation, and student promotions. Faculty members also should be involved in decisions about any other mission-critical areas. Strategies for assuring direct faculty participation may include peer selection or other mechanisms that bring a broad faculty perspective to the decision-making process, independent of departmental or central administration points of view. The quality of an educational program may be enhanced by the participation of volunteer faculty in faculty governance, especially in defining educational goals and objectives.

a. List in the table below all major permanent committees of the medical school. Note whether each committee is charged with making recommendations (R), empowered to take action (A), or both (B).

Committee	Number of Members	Appointed or Elected by:	Reports to:	Authority (R/A/B)
Medical Council	24	Appointed by the Dean	Recommends to the Dean	R
Faculty Forum	31	Elected by Executive Faculty	The Executive Faculty and takes action	B
Committee on Performance Criteria and Economic Welfare	8	Elected by Executive Faculty	Recommends to Faculty Forum and the Dean and takes action	B
Educational Policy Committee	12	Elected by Executive Faculty and Appointed by the Dean	Recommends to the Faculty Forum and takes action	B
Promotion, Appointment and Tenure	12	Elected by Executive Faculty	Recommends to the Dean	R
Research Committee	8	Elected by Executive Faculty	Recommends to the Dean and takes action	B
Rules, Policies, and Credentials	8	Elected by Executive Faculty	Recommends to Faculty Forum and takes action	B
Graduate Council	13	Elected and appointed by the Dean	Recommends to the Dean	R

Committee Table, cont.d				
Committee	Number of Members	Appointed or Elected by:	Reports to:	Authority (R/A/B)
Student Admissions Committee	30	Elected and appointed by the Dean	Recommends to the Dean and Faculty Forum and takes action	A
Student Promotions Committee	21	Representatives appointed by department chair after consultation with faculty	Recommends to the Dean	R
Student Academic Grievance Committee	9	Elected by the Executive Faculty	Recommends to the Dean	R

- b. Describe the means by which the dean obtains input from department heads and faculty members regarding institutional planning and decision-making. Note how often the dean meets with department heads, members of the dean's staff, and other medical school leadership groups (e.g., Executive Committee, Faculty Council).**

The Dean meets on a weekly basis with her administrative staff, which includes all assistant/associate/vice deans and other individuals who are essential to the operation of the school. The Dean also has a lunch meeting with the department chairs every other month. The Dean leads Medical Council and Faculty Forum at monthly meetings and the Executive Faculty at meetings twice a year. In addition, the Dean has well attended semi-annual open forums for all faculty, students and residents.

See also information for standard IS-4 in Section I: Institutional Setting and for standards MS-4, MS-18, MS-19, and MS-33 in Section III: Medical Students.

FA-14. A medical education program must establish mechanisms to provide all faculty members with the opportunity to participate in the discussion and establishment of policies and procedures for the program, as appropriate.

Participation by all faculty members in the discussion and establishment of policies and procedures for the program may be facilitated, for example, by:

- Ease of access to committee meeting agendas and minutes;
 - Program-wide dissemination of draft policies and procedures for faculty members' review;
 - Provision of opportunities for faculty members to comment on draft policies and procedures to program leaders prior to their finalization and implementation; or
 - Faculty meetings.
-

a. List the number and type of general faculty meetings held during the past academic year. Indicate whether these meetings were in person or “virtual” (e.g., Web cast) meetings. Describe the major agenda items for these meetings and the means by which faculty were made aware of meeting agendas.

Three major faculty bodies meet regularly: the Faculty Forum, the Executive Faculty, and Medical Council. Agenda items for each of the bodies are distributed electronically prior to meetings. All meetings are held in person.

The Faculty Forum is the elected representative body of the School of Medicine Executive Faculty. The Forum is chaired by the Dean and meets monthly. Members of the Forum include at least one elected representative of each department (larger departments have greater representation), one clinical and one basic science Chair, three medical students, two graduate students, and two residents. Issues are discussed in this forum and then acted on or sent forward to the Executive Faculty for action. The average attendance at Faculty Forum is about 75%. See sample minutes in [Appendix FA-14.a*1](#).

The Executive Faculty meets once each semester and all Executive Faculty (defined as full-time faculty with an appointment at the School of Medicine, part-time or voluntary faculty that have been elected to the executive faculty by their department, and Emeritus faculty who on an annual basis request to be considered executive faculty) are notified and invited to attend. The Dean discusses items of importance that have occurred since the last Executive Faculty meeting. The percentage of eligible faculty who attend these meetings is typically only 5 to 10%; therefore, an electronic ballot is usually conducted for items that require a quorum vote of 60 members. School-wide issues are raised and voted on at these meetings such as the list of graduates, changes in personnel documents including the School of Medicine *Bylaws*, departmental name changes, and the creation of new departments. See sample minutes in [Appendix FA-14.a*2](#). (Please note that Executive Faculty and Faculty Forum sometimes meet together.)

The Medical Council is advisory to the Dean and consists of the Dean and the department chairs. On average 90% of departments are represented at each meeting by the chair or designee. Administrators are also invited to these meetings, but have no vote. One graduate student, one medical student and one resident are voting members as well. The Medical Council is advisory to the Dean. Major items on the agenda have included changes to the School of Medicine *Bylaws* and the major policies of the school (e.g., promotion,

appointment and tenure policy and merit criteria policy), chair reviews, clinical operation and curriculum development discussions. See sample minutes in **Appendix FA-14.a*3**.

- b. Describe the means by which faculty members are informed about upcoming meetings. Describe the means by which faculty who are not present learn about the discussions at and/or outcomes of these general faculty meetings (e.g., through the circulation of meeting minutes).**

Medical Council and Faculty Forum are standing meetings. Executive Faculty meetings require notification of the meeting by electronic mail well in advance. Those who attend are asked to keep their constituents informed of important issues. Minutes of all of these meetings are distributed by electronic mail with appropriate attachments. Ballots are sent out electronically after Executive Faculty meetings (if there was not a quorum).

- c. Describe how copies of draft policies and procedures are distributed for faculty comment. Provide examples of opportunities made available during the past academic year for faculty members to comment on such drafts.**

• Draft policies are made available through electronic communications and through Faculty Forum and Medical Council.

Examples of opportunities for faculty members to comment on drafts:

In March, 2011, the Associate Dean for Medical Education attended the Faculty Forum meeting to present EPC-proposed changes to language in the School of Medicine *Bylaws* that related to the Educational Policy Committee. The changes were discussed with Forum members, who were asked to take the proposed changes back to their departments for discussion. The Associate Dean of Medical Education and the Vice Dean for Academic Affairs also told Forum members that they would both be willing to attend department faculty meetings to answer any questions. At the April Faculty Forum meeting, after discussion by Forum members, a motion was made, seconded and approved to make the proposed changes. The revised document was then forwarded electronically to the entire School of Medicine executive faculty for a vote in May 2011. The changes to the Educational Policy Committee were unanimously accepted by a vote of executive faculty on June 24, 2011. The Educational Policy Committee made the following changes: added one elected executive faculty member to represent the Trover Campus, limited EPC membership to two full consecutive terms with a wait of two additional terms before being eligible to serve again; and changed the EPC's responsibilities and authority to make them consistent with current LCME standards.

Another example could be the revision of the PAT document last year. A draft of the document was distributed at Medical Council and at Faculty Forum. Department chairs and members of the Faculty Forum were asked to discuss the proposed changes with their faculty and to provide feedback at a later meeting. In addition, the Associate Dean for Faculty Affairs and Vice Dean for Academic Affairs offered to come to departmental faculty meetings to discuss the proposed changes. Once the proposal was passed by a majority of faculty voting and approved by the University Board of Trustees, all School of Medicine faculty were invited to a workshop led by the Associate Dean for Faculty Affairs and members of the Promotion, Appointments and Tenure (PAT) Committee that focused on how the revisions would be implemented. That workshop was followed by an email communication from the Chair of the Promotion and Tenure Committee to all faculty.

- d. In addition to meetings, describe any other mechanisms (e.g., written or electronic communications) that exist at the medical school to inform faculty members about medical school matters.**

There is a calendar of events for the Health Sciences Campus available at <http://louisville.edu/medschool/cgi-bin/calendar/calendar.pl?calendar=hsc>

The University sends a daily listing from its service account <http://louisville.edu/uofltoday> to all faculty, staff and students about University events and other items of importance.

Items of importance also are transmitted electronically, as needed, directly from the Dean to all faculty or as messages to faculty through each department chair's Office.

The University of Louisville Hospital has a newsletter with items of importance as well. University of Louisville Physicians (ULP), the new integrated practice plan, also produces a newsletter.

Specific websites include information about particular policies, procedures and offices. Examples include the Office of Medical Education website at <http://louisville.edu/medschool/curriculum>, which posts information on diverse educational issues, and the Institutional Review Board website at <http://louisville.edu/research/humansubjects/research-related-policies/authority-of-the-uofl-irb.html>, which educates faculty about governmental requirements for research.

END OF SECTION IV

SECTION V. EDUCATIONAL RESOURCES

Part A: Key Quantitative Indicators

Please provide the following information. For U.S. medical schools, use the school's copy of the Longitudinal Statistical Summary Report (LSSR) as the data source, unless otherwise indicated. For Canadian medical schools, use the Canadian Faculty of Medicine Financial Summary as the data source, as appropriate.

a. **Total revenues** (in millions, to one decimal place)

2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12
316.8	337.9	352.4	372.4	407.9	420.7	439.3	480.9	481.0

b. **Total expenditures** (in millions, to one decimal place)

2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12
318.3	337.8	351.1	370.9	408.8	417.9	446.1	474.9	485.5

c. **Total state (provincial) and university appropriations** (in millions, to one decimal place)

2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12
40.2	40.2	40.4	41.2	43.0	45.1	48.2	57.6	53.0

d. **Professional fee (practice plan) revenues** (in millions, to one decimal place)

2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12
119.3	121.5	123.5	124.0	137.8	145.2	157.35	168.5	169.4

e. **Direct federal grants and contracts** (in millions, to one decimal place)

2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12
35.7	41.1	41.7	44.8	53.4	43.4	49.4	54.4	47.4

SECTION V. EDUCATIONAL RESOURCES

Part B. Narrative Data and Tables

ER-1. A medical education program must notify the LCME and the CACMS, when applicable, of any substantial change in the number of enrolled medical students or in the resources available to the institution, including the faculty, physical facilities, or finances.

If the medical education program plans to increase its entering medical student enrollment above the threshold of 10% or 15 medical students in one year, or 20% in three years, the program is required to provide prior notification to the LCME and the CACMS, when applicable. Notification to the LCME must occur by January 1st of the year preceding expansion; notification to the CACMS must occur by September 1st of the year preceding the planned expansion. This notification is required for a medical education program planning to increase class size on its main campus and/or in existing functionally separate instructional sites (without any expansion in the curriculum years that the functionally separate instructional site covers).

A medical education program that plans to start a new functionally separate instructional site or to expand an existing functionally separate instructional site (e.g., from a one-year or two-year program to a four-year program) is required to provide notification of the plans to the LCME and to the CACMS, when applicable, by January 1st of the year preceding the planned creation or expansion of the functionally separate instructional site.

ER-2. The present and anticipated financial resources of a medical education program must be adequate to sustain a sound program of medical education and to accomplish other programmatic and institutional goals.

The costs of conducting an accredited educational program leading to the M.D. degree should be supported from diverse sources (e.g., income from tuition, endowments, and earnings by the faculty, support from the parent institution, annual gifts, grants from organizations and individuals, appropriations by government). Evidence for compliance with this standard will include documentation of adequate financial reserves to maintain the medical education program in the event of unexpected revenue losses and demonstration of effective fiscal management of the medical education program's budget.

a. Complete the following table for the anticipated number of new medical students to be admitted in each of the indicated years. If the number is unknown, use "N/A."

	2012	2013	2014	2015	2016
# of New Students	155	155	155	155	155

NOTE: Unless the school states otherwise, the LCME will assume that the program uses the fiscal year of July 1 - June 30.

b. Summarize trends in the funding sources available to the medical school, including an analysis of their stability. Using data from the Longitudinal Statistical Summary Report (LSSR) or other documentation, explain any substantive changes during the PAST three years for the medical school in the following areas:

- i. Total revenues – Total revenue continues to trend upward. Growth has been 3.2% for FY 2009, 4.4% for FY 2010, and 9.5% for FY 2011.
- ii. Operating margin – The School of Medicine operating margin is 0.7% for FY 2009, 1.5% for FY 2010, and 1.2% for FY 2011.

- iii. Revenue mix – The largest source of revenue is Practice Plan/Other Medical Services revenue with Hospital revenue and Grants and Contracts revenue the second and third largest sources respectively. This has been consistent over the last three years.
- iv. Market value of endowments – Endowed funds of the University are held in the University of Louisville Foundation, Inc. The endowed pool of funds is managed by various money managers contracted by the Foundation. Results of the last three years have been 22.2%, 15.2%, and 20.8% for FY2009, FY2010, and FY2011 respectively. Endowments in the Medical School are a part of this combined pool.
- v. Debt service – The School of Medicine has no debt service obligation.
- vi. Outstanding debt – The School of Medicine has no outstanding debt.
- vii. Department Reserves—Departmental reserves are sufficient to maintain the educational program in the event of a potential shortage of funding from state funds or a reduction of endowment earnings. Clinical revenue has been steady and is expected to increase. We will make reserve data available to the site visit team, but prefer not to include amounts in this database due to the fairly broad distribution.

c. Describe any substantive changes in financial resources anticipated by the medical school over the NEXT three years in the following areas and explain the reasons for the anticipated changes:

- i. Total revenues – Clinical revenue should increase due to the integration of the practice plan. [keep all of the next sentences, except the last one.] The recent conclusion of the RFP process resulted with KentuckyOne as our new partner. The initial 20-year agreement assures continuation of the current ~\$75 million of annual Hospital support and another \$95 million for (predominately clinical) strategic programmatic investment over the next 5 years (beginning 3-1-2013). Also see (d) iii below.
- ii. Revenue mix – Due to the practice plan integration and KentuckyOne resources above, the revenue mix is expected to initially increase clinical revenue disproportionately. Research programs should benefit also, with their growth likely to occur 2-3 years after clinical growth.
- iii. Obligations and commitments – The school has no major unfunded obligations or commitments.
- iv. Reserves – The net impact to reserves should result in growth as positive margins are expected in clinical revenue. Reserves will be used to recruit new department chairs in Microbiology & Immunology and Pathology and other department chair vacancies and programmatic requests as they may occur.

d. Describe any substantive changes in institutional resources anticipated by the medical school over the NEXT three years in the following areas:

- i. Number of faculty – Based on the rate of increase over the last few years, and the need to continue the clinical growth, the School of Medicine can expect to continue a 4-5% rate of increase in the number of faculty over the next 3 years.

- ii. Faculty mix – Most of the growth in faculty has occurred in the clinical departments, and this trend should continue, although one new chair in Microbiology & Immunology is being recruited, which will probably bring additional faculty to the basic sciences departments as well.
- iii. Hospital and other clinical affiliations –In November 2012, the University, University Medical Center, and KentuckyOne Health signed a new joint operating agreement that will involve a transition in the day-to-day operations of most services at University of Louisville Hospital from current management (University Medical Center) to KentuckyOne Health, on or before March 1, 2013. This new partnership calls for \$543.5 million of investment during the first five years, expanding to \$1.394 billion over 20 years, including \$75 million annually for academic and program investments; and \$95 million over the first three years for key service lines and departments; \$70 million for IT infrastructure upgrades at University Medical Center; \$3 million dedicated annually for research; and \$7.5 million per year in capital investment for technology. In addition, new academic affiliation agreements for Surgery and Pediatrics are being finalized as this database is being completed.
- iv. Graduate medical education programs - The Graduate Medical Education (GME) programs at the University of Louisville are very stable and have enjoyed robust growth over the past 10 years, during which time the number of training programs accredited by the Accreditation Council for Graduate Medical Education (ACGME) has grown from 48 to 56 and the number of residents has increased from 580 to 650. This growth and stability have been achieved because we have multiple hospital partnerships, including the University of Louisville Hospital, Norton Healthcare, Veteran's Administration Hospital, and Jewish Hospital, now part of KentuckyOne Health. The Medical Center operates on a consortium model that allows transfer of Medicare supported GME from one hospital to another if needed. The number of resident positions and the resident stipends are negotiated with these hospitals annually by the Associate Dean for Graduate Medical Education. Annual resident agreements are signed as a result of these negotiations and there is a required 2-month notice if the agreement is not to be renewed. The Graduate Medical Education program has an ACGME policy in the event of closure of a program for any cause.
- v. Physical facilities – Preliminary plans have been drawn for a new School of Medicine instructional building. Specific funding has not been identified at this point; the building is ranked #2 on the University's capital funds request from the state.

e. Describe the medical school's annual budget process and the budgetary authority of the medical school dean. Does the medical school have a consolidated budget process that includes all medical school departments, the clinical practice plan, and/or the health system? Describe the roles and membership of any committees involved in budget planning. Is the medical school's budget approved by the governing board and/or officials of the parent university or, in the case of an investor-owned for-profit medical education program, by the corporate parent of the institution? Is the approval of the governing board required for tuition and fee rates for undergraduate medical students?

The medical school's annual budget process coincides with the parent university's budget process. Departments prepare their respective budgets, which are then reviewed by the dean's office and forwarded to the university. The medical school allocation of state appropriated funds (general funds) is reconciled and budgeted. Practice plan and other clinical revenue is estimated and expenses are budgeted against this revenue plus any carryover funds from these sources. Endowments are budgeted based on the University spending policy (currently 5.5% of the prior 3-year average). Personnel costs of sponsored programs are budgeted based on the effort expected to be assigned to the various projects. Budgetary authority and responsibility are

delegated to the dean of the school. The budget process is a consolidated process that includes all medical school departments. As mentioned above, the portion of the clinical practice that is transferred to the school for academic program support is budgeted as well as estimated revenues from affiliated hospitals in support of the school's programs. There are no committees involved in budget planning. Staff members in the university's budget office review the budget that is submitted by the school. The school's budget is approved by the governing board of the parent university as part of the overall budget approval. Approval of the University's Board of Trustees is required for tuition and fee rates for all students.

f. Describe the ways in which the medical school's governance, through its board of directors and its organizational structure, supports the effective management of its financial resources. Describe how lines of authority are defined, the internal controls that are in place, the degree of oversight provided by the state/parent/governing board in managing medical school resources, and the relationship between the dean and department chairs in managing departmental resources.

A major standing committee within the School of Medicine's governance structure is the Medical Council. This committee consists of the dean as chair and all the department chairs and certain appointed faculty and students. The Medical Council is advisory to the dean and meets monthly and can address financial issues of broad interest as they are brought forward. An individual department's financial issues would not be brought to this committee, but handled by the Dean's Office and the department. The school has a decentralized governance structure with chairs having authority and responsibility for their respective departments. Chairs report directly to the dean. The dean expects chairs to manage their departments within the resources available to them. The school uses the financial systems of the University. Proper internal controls are in place per University policies and procedures. Departmental business managers are required to complete an eighteen month training course covering the various areas of administration and finance. Periodic internal audits of selected departments/units are conducted by the university's Audit Services department. Reports of the findings are issued to those involved, the dean, the EVP for Health Affairs, and others, including the University's president and provost as well as the Audit Committee of the University's Board of Trustees.

g. Describe the role of medical school management and administrative systems (e.g., financial, human resources, student information, room inventory, and sponsored programs) in serving the information needs of the medical school leadership. Describe any plans to replace outdated systems and any improvements made since the last full survey visit. Describe the nature and frequency of the financial reports provided to the medical school dean. In the Appendix, provide three examples of recent reports.

The school uses the university's PeopleSoft financial and administrative systems. This is a very robust system allowing detail analysis of various transactions. Many standard reports are available for users. The University implements upgrades as they become available. Financial management of sponsored programs is also accomplished with this financial system. See [Appendix ER-1/2.g*1, 2 and 3](#) for examples of recent reports. There is not a good rollup reporting capability in the system. In response the School purchased ancillary report generating software (eThORITY) to assist in more flexible reporting. In 2012, a new space management system (Archibus) was implemented by the Health Sciences Center. Archibus links space occupancy to floor plans, is web-based and easily accessed throughout the School. The system supports analysis of room use, space productivity and other internal and external reporting requirements. A module for lease and contract management is under implementation and will be available for use in 2013. The dean meets with her financial team weekly to discuss financial and space issues. Specific financial analyses are presented to the dean and discussed at this meeting,

e.g., chair recruitment financial projections. A meeting with the dean on departmental deficit accounts is held monthly. A report of each account with a deficit balance, sorted by department, is reviewed and current actions to address the deficits are reported to the dean.

A space management system has been purchased and is in the process of being implemented.

h. Describe the ways in which current and projected capital needs for the missions of the medical school are being addressed. Describe the medical school's policy with regard to the financing of deferred maintenance of medical school facilities (e.g., roof replacement).

The next major capital need for the medical school is a new instructional building ([Appendix ER-1/2.h*1](#)). Preliminary plans and a first-pass funding analysis have been presented to the university trustees. Part of the funding is based on increased class size. Other potential sources would be state funding, philanthropy and an allocation of funds from the tax incremental financing (TIF) district of which the medical school is a part. The University provides routine maintenance and also budgets approximately \$1,000,000 annually for University-wide deferred maintenance. In addition, the Executive Vice President for Health Affairs budgets another \$500,000 for renovation and repair. As department chairs are recruited, additional renovation and associated deferred maintenance needs are addressed. Sponsored funds are sought to further augment the above.

i. Describe the extent to which financial reserves have been used to balance the operating budget in recent years.

Funds have been used to cover deficits in OB/GYN and Neurology. Reserve funds have also been used to cover some accumulated deficits in departments as new chairs are recruited.

j. Summarize the key findings resulting from any external financial audits of the medical school (including medical school departments) performed during the most recently completed fiscal year.

See the attached executive summaries of two audit reports (for the Neurology Division of Movement Disorder and for the Weisskopf Child Evaluation Center) issued by the University's Department of Audit Services ([Appendix ER-1/2.j*1](#) and [Appendix ER-1/2.j*2](#)). Appropriate steps to address any deficiencies have been taken. Please note that the departure of the Division Chief of the Division of Movement Disorders from the university was to take another faculty position in California and was not related to the audit.

k. Provide a revenue and expenditures history for the current fiscal year (based on budget projections) and for each of the past three fiscal years. For U.S. medical schools, the format for the history and the data for the three completed fiscal years should be obtained from the "Rev_Exp_History" tab of the school's completed LCME Part I-A Annual Financial Questionnaire. For Canadian medical schools, use the Canadian Faculty of Medicine Financial Summary as the data source, as appropriate.

Revenues and Expenditures History					
University of Louisville School of Medicine (138)					
	FISCAL YEAR 2009	FISCAL YEAR 2010	FISCAL YEAR 2011	FISCAL YEAR 2012	Projected FISCAL YEAR 2013
REVENUES:					
Tuition and Fees:					
Medical Students	16,151,714	17,483,237	19,073,941	20,809,570	22,802,147
Other Students	3,323,393	3,330,214	4,283,165	3,395,976	3,117,719
Total Tuition and Fees	19,475,107	20,813,451	23,357,106	24,205,546	25,919,866
Government and Parent Support:					
Federal Appropriations	-	-	-	-	-
Adjusted State and Parent Support	45,086,949	48,158,446	57,631,244	53,040,742	56,386,018
Local Appropriations	-	-	-	-	-
Total Government and Parent Support	45,086,949	48,158,446	57,631,244	53,040,742	56,386,018
Grants and Contracts:					
Federal Direct	43,425,699	49,397,986	54,426,175	47,387,924	51,210,840
State & Local Direct	8,827,497	7,681,965	7,053,160	7,103,647	7,262,835
Private Direct	10,849,715	10,468,282	11,256,745	13,672,736	10,676,948
Facilities & Admin (Indirect)	16,486,966	17,647,181	17,429,814	18,330,728	16,328,327
Total Grants and Contracts	79,589,877	85,195,414	90,165,894	86,495,035	85,478,950
Practice Plans/Other Medical Services	145,188,701	157,523,075	168,477,708	169,431,499	174,514,444
Hospitals:					
University Owned	42,634,970	45,829,901	49,315,947	49,401,822	53,117,119
Veterans Administration	21,193,481	23,083,628	24,381,842	25,246,769	25,677,362
Other Affiliated Hospitals	27,894,025	29,275,602	33,349,550	38,322,904	38,783,241
Total Hospital Revenues	91,722,476	98,189,131	107,047,339	112,971,495	117,577,722
Gifts	12,302,308	10,003,970	9,161,096	11,121,447	12,283,771
Endowment Income	15,193,261	15,000,993	17,295,688	16,156,596	15,553,480
Other Revenues	12,130,026	4,449,111	7,774,963	7,563,658	7,300,000
TOTAL REVENUES	420,688,705	439,333,591	480,911,038	480,986,018	495,014,251
TOTAL EXPENDITURES & TRANSFERS	417,862,126	446,068,150	474,946,778	485,517,047	495,227,388
NET REVENUES OVER EXPENDITURES	2,826,579	(6,734,559)	5,964,260	(4,531,029)	(213,137)
Change		(9,561,138)	12,698,819	(10,495,289)	4,317,892

l. In the Appendix, provide a copy of the most recent LCME Part I-A Annual Financial Questionnaire, including the Signature Page and excluding the Scratch Pad page (a total of 8 pages) (Appendix ER-1/2.I*1). Also, please provide the school's responses to the Web-based companion survey to the LCME Part I-A Annual Financial Questionnaire, the "Overview of Organization and Financial Characteristics." (Appendix ER-1/2.I*2) For Canadian medical schools, provide a copy of the Canadian Faculty of Medicine Financial Summary.

m. If tuition and fees comprise more than 50% of the medical school's total annual revenues, describe the school's plan to reduce dependence on tuition and fees.

N/A

ER-3. Pressure for institutional self-financing must not compromise the educational mission of the medical education program or cause it to enroll more medical students than its total resources can accommodate.

Reliance on medical student tuition should not be so great that the quality of the medical education program is compromised by the need to enroll or retain inappropriate numbers of medical students or medical students whose qualifications are substandard.

a. Briefly describe the extent to which faculty productivity requirements in research or clinical service have affected the medical school's ability to maintain its commitment to medical student education

Since 1998, the university and School of Medicine have increased the formal requirements for faculty performance in both education and research for promotion and tenure considerations, as well as in their annual performance evaluations. The demands of clinical service remain. Tracks recognizing excellence in teaching and clinical service, as well as research, have been implemented. As we have had successes in our research portfolio, our faculty have also placed considerable effort in enhancing the educational mission. This was a mandate from former Dean Halperin and he appropriately implemented programs and rewards for faculty participation in teaching, at a time when the institution placed considerable importance on faculty research productivity. It should be noted that faculty can now be promoted based on achievements in teaching or clinical service. Raising the standards in both teaching and research has increased performance in both areas, but high standards in clinical service have been maintained. We have balanced research demands with increased emphasis on education and recognition of educational performance.

b. Describe whether the medical school's need to generate revenue is affecting decisions related to current and anticipated student enrollment.

Class size is 155, which uses the effective capacities of both our preclinical physical plant and our clinical resources for optimal hands-on learning experiences. (Note that class size was increased to 160 new matriculants each year for three years [2009/10 to 2011/12] in response to state and national calls for additional doctors, but was reduced to 155 for 2012/13 in response to course/clerkship director and faculty feedback.) Medical school revenue is not affecting class size.

Also see Section III, Part A (g. and h.) and information for standard FA-2 in Section IV: Faculty.

ER-4. A medical education program must have, or be assured the use of, buildings and equipment appropriate to achieve its educational and other goals.

The facilities of the medical education program should include offices for faculty, administrators, and support staff; laboratories and other space appropriate for the conduct of research; medical student classrooms and laboratories; lecture hall(s) sufficiently large to accommodate a full year's class and any other students taking the same courses; space for medical student use, including medical student study space; space and equipment for library and information access; and space for the humane care of animals when animals are used in teaching or research.

a. Complete the following table of teaching facilities for each building in which medical students participate in regularly scheduled classes, including laboratories. Do not include classrooms located in clinical facilities.

Building: 55B "Instructional Building"**Year Constructed: 1970****Year of Last Major Renovation: 2003**

<u>ROOM#</u>	<u>TYPE</u>	<u>CAPACITY</u>	<u>MAIN EDUCATIONAL USE</u>
HB101	classroom	20	instruction/small group discussion
HB102	lecture hall	160	lecture
HB105	classroom	22	instruction/small group discussion
HB106	classroom	14	instruction/small group discussion
HB107	classroom	20	instruction/small group discussion
HB108	student unit lab*	28	small group teaching, lab & independent study
HB111	student unit lab*	28	small group teaching, lab, & independent study
HB113	student unit lab*	28	small group teaching, lab, & independent study
HB117	student unit lab*	28	small group teaching, lab, & independent study
HB118	student unit lab*	28	small group teaching, lab, & independent study
HB123	student unit lab*	28	small group teaching, lab, & independent study
HB201	classroom	20	instruction/small group discussion
HB202	lecture hall	160	lecture
HB205	conference room	20	instruction/small group discussion
HB206	student unit lab*	28	small group teaching, lab, & independent study
HB210	student unit lab*	28	small group teaching, lab, & independent study
HB213	student unit lab*	28	small group teaching, lab & independent study
HB216	student unit lab*	28	small group teaching, lab, & independent study
HB218	student unit lab*	28	small group teaching, lab, & independent study
HB222	student unit lab*	28	small group teaching, lab & independent study
HB302	lecture hall	145	lecture
HB317	gross dissection	176	anatomical dissection
HB321A(8 rooms)	Clinical Skills Lab	2	standardized patient/exams
HB307(4 rooms)	Simulation Lab	12-15	clinical simulation

* each unit lab includes three small rooms (8-10 students each) at the back, for a total of 36 rooms-18 per class. Each of these small rooms includes a computer. They can be used for small group learning exercises or study.

Building: K-Wing, “Nursing School Building”

Year Constructed: 1954

Year of Last Major Renovation: 1990

<u>ROOM#</u>	<u>TYPE</u>	<u>CAPACITY</u>	<u>MAIN EDUCATIONAL USE</u>
HK2002	conference room	12	small group discussion
HK2005	conference room	20	small group discussion
HK2016	conference room	16	small group discussion
HK2017	conference room	16	small group discussion
HK3002	conference room	12	small group discussion

Building: 55D “Kornhauser Library Building”

Year Constructed: 1970

Year of Last Major Renovation: 1970

<u>ROOM#</u>	<u>TYPE</u>	<u>CAPACITY</u>	<u>MAIN EDUCATIONAL USE</u>
LC103	auditorium	462	conferences/exams

b. Indicate the title and organizational placement of the school staff member responsible for scheduling and coordinating the use of these facilities. Indicate whether these facilities are shared with other educational programs. Describe any recurrent problems in gaining access to needed teaching space.

Greg Crawford, Administrative Assistant, is responsible for scheduling and coordinating the use of all teaching facilities on the Health Sciences Center campus. Organizationally he is under the Executive Vice President for Health Affairs.

The teaching facilities on the HSC campus are shared among the four health profession schools. However, each school has primary academic space identified to support its requirements, which is shared with the other schools once the primary needs are met. The primary academic space for the School of Medicine is located in Building 55B, also known as the “Instructional Building.” Courses are also scheduled in Building 55D (the “Library”) and K-Wing (the “Nursing School”).

There have been no recurrent scheduling problems accommodating medical school courses. However, as teaching modalities change, new sections are added, or class size might be increased, additional space would be required. For example, it is sometimes difficult to run students through the Standardized Patient Clinic because of the student schedule and the number of examination rooms. That said, students are very satisfied with their standardized patient experiences and have more “teaching” time with the standardized patients than do students at many other medical schools, according to students’ anecdotal reports and evaluation results. The university has developed plans for a new instructional facility to support the growing needs of the campus. The project is second in overall priority for the entire University and will proceed when funding is available.

c. Summarize the number and locations of rooms used for small-group teaching and for laboratories. If there has been an increase in class size, describe whether small-group and laboratory teaching space has expanded to accommodate the increased enrollment.

We have 6 unit labs and 18 PBL rooms per class and 5 classrooms that accommodate between 20-25 students. Small group teaching space and laboratories for medical students are primarily located within the 55B “Instructional Building” (see ER-4.a table). Class size increases and

curricular changes have increased the use of existing facilities. Small group teaching space in 55B and K-Wing is used to support medical school teaching programs.

Existing space within 55B has been reconfigured to accommodate some of the School of Medicine's programmatic growth. For example, the standardized patient program's training area was recently expanded to adjacent space and small group room scheduling was expanded to include areas in other buildings on the campus. We also upgraded the technology in the 12 student unit labs and removed privacy walls to enhance small group learning space. Currently, we are purchasing new chairs for the unit labs to facilitate computer based testing.

We currently have the most difficulty finding rooms to accommodate groups in the 30-50 person range. This need is felt across all of the schools on the HSC campus. To date we have been able to meet all programmatic needs but recognize future problems could arise depending upon curricular trends and any new program initiatives.

d. Describe the facilities used for teaching physical examination skills, conducting standardized patient examinations, and administering OSCEs. Describe any special facilities that are used only for clinical skills instruction or assessment of medical students (i.e., not used for patient care). Note any recurrent problems or shortcomings with the facilities used to teach and assess students' clinical skills.

The third floor of the instructional building contains space for teaching physical examination skills, conducting standardized patient examinations, and administering OSCEs. The Standardized Patient Program has eight exam rooms and support space for SPs and program staff. The use of these facilities has increased and we recently expanded by adding additional space adjacent to the main facility.

Although the facility is able to accommodate current requirements, the layout is sub-optimal, and additional examination rooms would improve the program's functional effectiveness.

e. Complete a table like that below showing the number of faculty offices, research labs, and net square footage for each academic department of the medical school.

Department Name	# Offices	Total Net Sq. Ft (Office)	# Research Labs*	Total Net Sq. Ft (Labs)
BASIC SCIENCES:				
Anatomical Sciences & Neurobiology	25	2746	51	14769
Biochemistry & Molecular Biology	25	3218	64	15041
Microbiology & Immunology	15	2309	55	11844
Pharmacology & Toxicology	25	2840	85	19965
Physiology & Biophysics	20	2703	29	9370
CLINICAL SCIENCES				
Anesthesiology & Perioperative Med.	16	1811	0	0
J.G. Brown Cancer Center	60	21044	49	80589
Emergency Medicine	8	1210	0	0
Family Medicine	38	4834	0	0
Medicine	122	18471	231	69564
Neurology	15	2254	2	473
Neurological Surgery	17	2588	37	10964
Obstetrics, Gynecology & Women's Health	38	5012	24	4137
Ophthalmology & Visual Sciences	42	5009	51	30803
Orthopedic Surgery	18	4560	3	1675
Pathology & Laboratory Medicine	31	3535	19	2912
Pediatrics	145	18850	58	15290
Psychiatry & Behavioral Sciences	84	9080	11	3361
Radiologic Oncology	13	1777	0	0
Diagnostic Radiology	28	3243	5	2383
Surgery (includes CII and ICT)	160	23400	125	46693
Urology	5	600	0	0

*Includes total number of research related rooms including laboratories, shared equipment rooms, cold rooms, dark rooms, etc.

Note: Research space identified is for university owned facilities. It does not include the VA, or clinical facilities with research activities.

f. If the school's animal care facilities are accredited by the American Association for Laboratory Animal Care (AALAC), provide the date of last review and the accreditation status of the facility. Describe the safeguards in place to ensure adequate space for the humane care of animals used in teaching and research.

The Research Resources Facility (RRF) is the administrative and operational oversight unit responsible for managing and directing animal care for the University of Louisville's (UofL) research program. Working with the Institutional Animal Care and Use Committee (IACUC), the RRF is proud of its long-standing tradition of service to both seasoned and junior faculty members, and exists to sustain sound research by minimizing variables associated with environmental conditions and animal distress.

Most of the UofL animal care and use operation, which totals approximately 107,000 ft² and supports over 27,000 animals on a daily basis, is housed in seven facilities located on the Health Sciences Center (HSC) campus. The *Research Resources Center* (16,681 ft², constructed 1990) contains several specialized areas including large animal housing, a large cage washing area, and a biohazard containment area. This basement-level facility now expands into the recently constructed (2007) *Cardiovascular Innovation Institute*, which incorporates approximately 12,000 ft² devoted to large animal cardiothoracic surgery and support. Within these two buildings the RRF operates 4 large operating rooms with dedicated animal preparation areas, 2 necropsy rooms, a large intensive care suite, and fluoroscopic and MRI (under construction) diagnostic imaging capabilities. These facilities have supported a number of sophisticated procedures, including pulmonary and cardiovascular assist device implantation in various species ranging from rabbits to swine and small ruminants.

The RRF operates several additional HSC vivaria supporting murine models. At 33,167 ft², the *Clinical and Translational Research (CTR) Vivarium* (constructed 2010) is the largest animal facility within the RRF. This barrier facility contains 26 animal holding rooms, 13 animal procedure rooms, a large central cage processing facility, and a 7-cubicle Turnaround/Isolation Suite. The CTR Imaging Suite, which contains μ PET, μ CAT, 9.4T MRI, In Vivo Fluorescence, and Photon imaging modalities, is adjacent to the vivarium. The *Baxter II Vivarium* (19,000 ft²) was occupied in July 2003. This facility is designed to house up to 35,000 mice in both conventional and limited-access barrier conditions. Note that “conventional,” in this facility, includes individually-ventilated cage rack systems and microisolator techniques. The *Baxter I Barrier Facility* (4,251 ft²) is located in the lower level of the Donald E. Baxter Biomedical Research Building (constructed 1999). This entire area is maintained as a strict rodent barrier and houses one of the two cesium-source irradiators available for animal use. The *Medical-Dental Research Building* contains the original centralized animal facility for the University on its seventh floor. Although the building was constructed in 1962, this facility (8269 ft²) was renovated in 2007 for microisolator-housed rodents in barrier-like conditions and includes several procedural areas as well as a core rodent inhalation exposure laboratory. In the basement of the MDR is the *Office of Research Services*, which provides administrative support for both the RRF and IACUC. Single animal rooms providing conventional housing for rodents and fish are located on nine of the *Medical School “A” Tower’s* fourteen floors (230 ft² each). A freight elevator serves as a vertical corridor between the Tower animal rooms and a cage wash and storage area (2,069 ft², renovated 1999), which houses a second cesium-source irradiator (installed August 2001). A single room within the *Dental School (DS-324, 125 ft², renovated 2003)* contains space for housing mice adjacent to a smoke inhalation facility.

The RRF also operates vivaria on the Belknap and Shelby campuses. The *Center of Predictive Medicine for Biodefense and Emerging Infectious Diseases / Regional Biosafety Laboratory* was constructed in 2010 at the Shelby Campus and contains a 7113-ft² vivarium specially designed to maintain animals exposed to Biosafety Level 3 organisms. The vivarium is divided into 3 suites, each serviced by a dedicated anteroom, and also includes an animal imaging suite with μ PET, μ CT, and fluorescence / luminescence capabilities. The *Life Sciences Building* on the Belknap Campus contains a small vivarium (1236 ft²) for housing rodents and tree shrews supporting collaborative work with the Departments of Biology and Psychology & Brain Sciences.

Personnel involved in the animal care and use program are experienced and devoted to the care of animals used for research and education. The RRF is supported by an experienced team of staff devoted to the care of animals used for research and education. The Facilities Manager, Ralph Hornickel, began operating UofL animal facilities in 1968, and now oversees 59 supervisory, animal husbandry, and cage wash technicians, most of whom have attained certification by the American Association for Laboratory Animal Science (AALAS). The Veterinary Care program is led by Mary L. Proctor, DVM, MS, Dipl. ACLAM, RRF Assistant Director, and includes 2 additional veterinarians and 10 veterinary technicians with expertise in the care of laboratory animals. Sheila Carpenter, Unit Business Manager Intermediate, has been employed in UofL administration since 1975 and the RRF since 2001, and supervises 5 administrative staff. William W. King, DVM, PhD, Dipl. ACLAM, who joined the university in 2000 as Assistant Vice President, Research Services and RRF Director, has been associated with AAALAC, International, for many years and currently serves as the President of its Council on Accreditation. The RRF staff, therefore, is quite prepared to ensure the utmost quality in animal care, use, and regulatory compliance.

The UofL IACUC assumes responsibility for those functions delineated in the *Guide for the Care and Use of Laboratory Animals*, the *Public Health Service (PHS) Policy on Humane Care and Use of Laboratory Animals* and the Animal Welfare Regulations promulgated by the Animal Welfare Act. The animal care and use program maintains an active "Assurance of Compliance with Public Health Service Policy on Humane Care and Use of Laboratory Animals" (No. A3586-01) with the Office of Laboratory Animal Welfare (OLAW). All UofL animal facilities operate under USDA registration No. 61-R-001-01. Furthermore, as an element of a rigorous and continuous self-evaluation, the IACUC performs semi-annual reviews of all facilities related to the animal care and use program, including all research laboratories where animals are taken for experimentation or instruction. Reports describing findings during these reviews are filed with the Institutional Official (Executive Vice President for Health Affairs).

The University of Louisville has been recognized by AAALAC as one of two U.S. institutions that has maintained continuous accreditation since the organization was founded in 1965. The most recent site visit, in March of 2010, revealed no items for correction and commendations for many aspects of the animal care and use program including the IACUC, occupational health and safety program, maintenance by the Physical Plant, and animal husbandry/sanitation by the animal care staff. Also specifically commended was the outstanding support the program receives from University administration, as evidenced by major financial commitments for equipment purchases and facility renovation.

ER-5. A medical education program should have appropriate security systems in place at all instructional sites.

a. Describe the security systems and personnel that are used to provide a safe study and learning environment for medical students during and outside of regular duty and class hours on campus and at clinical teaching sites.

Safety and security are of critical importance to the School of Medicine. Since the last site visit, there have been a number of enhancements to ensure a safe environment. An effort has been made to increase the communications between Department of Public Safety and student/faculty with website (<http://louisville.edu/police/safety>), meetings and written information bulletins. In addition a “Downtown Security Group” has been created that includes the Louisville Metro Police, Red Cross and security personnel from the surrounding hospitals. This group has established an Email notification system for the Downtown Security Group to distribute information.

The number of police officers and security officers on Health Science Campus has increased from ten in 2008 to thirteen at present and they are onsite 24 hours a day, 7 days a week. More security cameras and lighting have been installed throughout the campus and there are now a total of 60 emergency phones. In addition, plain clothes/undercover officers are also present. A secure parking garage that accommodates 1700 vehicles was built in 2009, decreasing the need for students to utilize parking along the city streets. In response to student feedback, card access readers were installed on all buildings, the shuttle service hours to and from the surrounding parking lots were expanded and there is an increased emphasis on use of the 24/7 DPS student safety escort service.

Annual Security and Fire Safety Report for 2011 is available at [Appendix ER-5.a*1](#)

b. Describe any special protections available to medical students if they are exposed to physical danger in the learning environment (e.g., during interactions with patients in detention facilities).

The University now has an enhanced 911 phone system system and duress alarms have been placed in all restrooms. Panic alarms are installed at most secretaries’ front desks that go directly to dispatch. Finally, a campus wide smart phone initiative has been implemented whereby students receive direct text alerts regarding potentially dangerous situations. While students are on hospital rotations, each hospital has an alert system in place. There are currently no required or elective rotations in any of the detention facilities. However, when students are rotating on the Emergency Psychiatric Service or on the Trauma Service, potential for dangerous situations exists. Both of these rotations take place in the Emergency Department at University Hospital where security is a high priority. All persons entering the area are screened for weapons and observed very closely for potentially violent behavior. Security personnel are present 24 hours a day, 7 days a week and any potentially dangerous situations are dealt with promptly. In addition, there is a hospital wide alert system should a potentially dangerous situation arise anywhere in University Hospital. Security and support personnel are mobilized to mitigate the situation and the location is communicated to students, residents, staff and faculty.

c. Describe existing and proposed initiatives to prepare for natural and other disasters and emergencies, including planning activities, mandatory training, and resources available to the medical school's students, faculty, and staff.

The UofL Alert notification system ("RAVE") uses cell phone text messages, University IP phones, University website e-mail system and other methods to notify students, staff and faculty of emergencies that could pose an immediate risk to health and safety. Most of the system is automatic. Cell phone text messaging requires registration. In addition there is a mobile application, UofL Card Safety Mobile App, which provides detailed information, maps, etc.

Emergency plans and procedures exist at several levels, including each university building. Copies of building emergency action plans (BEAPs) are available from each Building Emergency Coordinator and from the Department of Environmental Health and Safety (DEHS). Procedures are outlined in the Faculty and Staff Emergency Procedure Handbook and are also available in flip-chart format from DEHS (<http://louisville.edu/dehs/emergency/procedures.html>)

DEHS has prepared training programs and educational materials to help students, faculty and staff know what they must do before, during and after an emergency, both on campus and at home.

The student self-study survey results indicate that 76% of the students are satisfied or very satisfied with "the adequacy of campus security" and 8% are dissatisfied or very dissatisfied. (The remaining 16% were neutral.) As this database is being completed, the Interim Dean has requested a meeting with University administrators responsible for HSC security so that some of the written suggestions students provided for making the campus even more secure can be discussed and implemented, for example, changes to the campus shuttle system and increased security at the instructional building.

ER-6. A medical education program must have, or be assured the use of, appropriate resources for the clinical instruction of its medical students.

- a. List each inpatient teaching site at which the medical school's students take one or more of the listed required clerkship rotations* and check the clerkship rotation(s) offered:

Inpatient Facility Name (list)	Check [<input checked="" type="checkbox"/>]						
	Family Medicine	Internal Medicine	Ob/ Gyn	Pediatrics	Psychiatry	Surgery	Neurology
University of Louisville Hospital		X	X	X	X	X	X
Veteran's Affairs Hospital		X			X	X	
Kosair Children's Hospital				X		X	X
Norton Hospital		X	X		X-child psych	X	
Jewish Hospital		X	X private		X-ECT only	X	X
Trover Campus		X	X	X		X	X

* If the medical school offers major core clerkship rotations in different subjects (e.g., Interdisciplinary Primary Care, Women's and Children's Health), please modify the headings accordingly.

b. For each inpatient facility listed in the preceding table, provide the following information: (Use a separate page for each institution)

Facility Name: University of Louisville Hospital
Name of Chief Executive Officer: James Taylor
Year Appointed: 1996

Number of beds	404
Average occupancy rate	83.7%
Average length of stay	5.53 days
Number of annual admissions	17,280
Number of outpatient visits/year	192,682 (including ER)
Number of ER visits per year	42,396

Clinical Service	# of Beds	Average Daily Census	# of Students per Rotation	
			The School's Medical Students	Visiting Medical Students
Family Medicine	356*	8	0	0
Internal Medicine	356*	50-60	15-20	0
Obstetrics/Gynecology	28	20-30	19	0-1 (2 students/year)
Neurology	356*	18-25	10-14	0-1
Psychiatry	20	40	8	0-2
Surgery	356*	35-50	4-6	0

*356 combined med/surg beds

Facility Name: **Kosair Children’s Hospital**
Name of Chief Executive Officer: **Tom Kmetz**
Year Appointed: **2009**

Number of beds	263
Average occupancy rate	74.1
Average length of stay	7.24
Number of annual admissions	10000
Number of outpatient visits/year	102000 including ED visits
Number of ER visits per year	51000

Clinical Service	# of Beds	Average Daily Census	# of Students per Rotation	
			The School’s Medical Students	Visiting Medical Students
Family Medicine*	263	0-1	0	0
Neurology	263	10	3-5	0-1
Pediatrics	263	80-85	26	0
Surgery	263	25-40	4-6	0

* 263 med/surg beds

Facility Name: **Jewish Hospital/St. Mary’s**

Name of Chief Executive Officer: Ruth W. Brinkley
Year Appointed: 2012

Number of beds	442
Average occupancy rate	64.6%
Average length of stay	5.37 days
Number of annual admissions	19,556
Number of outpatient visits/year	84,717
Number of ER visits per year	35,000

Clinical Service	# of Beds	Average Daily Census	# of Students per Rotation	
			The School's Medical Students	Visiting Medical Students
Family Medicine*	442	8	0	0
Internal Medicine	442	15-25	4-6	0
Neurology	442	10-15	2-3	0
Surgery	442	20	4	0

*442 Medical/Surgical – no other beds

Facility Name: Norton Hospital
Name of Chief Executive Officer: Stephen A. Williams
Year Appointed: 1993

Number of beds	642
Average occupancy rate	72.6%
Average length of stay	6 days
Number of annual admissions	27051
Number of outpatient visits/year	52019
Number of ER visits per year	27819

Clinical Service	# of Beds	Average Daily Census	# of Students per Rotation	
			The School's Medical Students	Visiting Medical Students
Family Medicine	542*	0	0	0
Obstetrics/Gynecology	41	12	1	0
Psychiatry	46	45	9	0-2
Surgery	542*	50	4-6	0

*Combined Med/Surg beds

Internal Medicine students rarely go to Norton. When they do it is on the renal service (1-2 students per rotation with no visiting students). None have gone this year or most of last year.

Facility Name: **Veteran's Administration Hospital**
Name of Chief Executive Officer: **Wayne Pfeffer**
Year Appointed: **2005**

Number of beds	116
Average occupancy rate	67.8%
Average length of stay	3.64
Number of annual admissions	5207
Number of outpatient visits/year	522,784
Number of ER visits per year	22,069

Clinical Service	# of Beds	Average Daily Census	# of Students per Rotation	
			The School's Medical Students	Visiting Medical Students
Internal Medicine	55	42	10-14	0
Psychiatry	22	18-20	3-5	0
Surgery	22	12	4-6	0

Facility Name: Trover/Madisonville Campus
Name of Chief Executive Officer: Berton Whitaker
Year Appointed: 2006

Number of beds	410
Average occupancy rate	26.34%
Average length of stay	4.3 days
Number of annual admissions	8977
Number of outpatient visits/year	204006
Number of ER visits per year	30885

Clinical Service	# of Beds	Average Daily Census	# of Students per Rotation	
			The School's Medical Students	Visiting Medical Students
Family Medicine+	134	20	1	1
Internal Medicine+	134	48-60	1-2	1
Obstetrics/Gynecology	17	8	1-2	0
Pediatrics*	22	7	1-2	<1
Neurology+	134	10-15	1-2	0
Surgery+	134	10	6	0

*includes Peds and Neonatal Intensive Care Unit

+Combined Medical/Surgical Beds

Academic Year 2011-2012

c. Complete the following table for each ambulatory site* used for required medical student education:

Site Name: Ambulatory Care Building		Site Type** : Clinic	
Course or Clerkship Rotation Offered	Academic Period (Year) When Offered	Duration (Weeks)	# of Students per Rotation
Obstetrics/Gynecology	3	6	21
Internal Medicine	3	2-3	~12
Neurology	3 and 4***	2-4	3-6
Psychiatry	3	6	4-6

*If groups of doctors' offices or preceptorial sites are used, list the total number of such sites used for a given required course or clerkship experience.

**Stand-alone clinic, private offices, etc.

*** We are in a one-year transition moving Neurology from the 4th year to the 3rd year

Site Name: East Broadway Clinic		Site Type** : Clinic	
Course or Clerkship Rotation Offered	Academic Period (Year) When Offered	Duration (Weeks)	# of Students per Rotation
ObGyn	3	6	1-2

*If groups of doctors' offices or preceptorial sites are used, list the total number of such sites used for a given required course or clerkship experience.

**Stand-alone clinic, private offices, etc.

Site Name: Ultrasound Clinic		Site Type** : Clinic	
Course or Clerkship Rotation Offered	Academic Period (Year) When Offered	Duration (Weeks)	# of Students per Rotation
ObGyn	3	6	2

*If groups of doctors' offices or preceptorial sites are used, list the total number of such sites used for a given required course or clerkship experience.

**Stand-alone clinic, private offices, etc.

Site Name: Clinical Faculty Offices		Site Type** : Clinic	
Course or Clerkship Rotation Offered	Academic Period (Year) When Offered	Duration (Weeks)	# of Students per Rotation
ObGyn	3	2	6
Neurology	3 and 4***	2-4	2-4

*If groups of doctors' offices or preceptorial sites are used, list the total number of such sites used for a given required course or clerkship experience.

**Stand-alone clinic, private offices, etc.

*** We are in a one-year transition moving Neurology from the 4th year to the 3rd year

Site Name: Veteran's Affairs Hospital		Site Type**: Clinic	
Course or Clerkship Rotation Offered	Academic Period (Year) When Offered	Duration (Weeks)	# of Students per Rotation
Internal Medicine	3	2-3	~12
Psychiatry	3	6	4-6

*If groups of doctors' offices or preceptorial sites are used, list the total number of such sites used for a given required course or clerkship experience.

**Stand-alone clinic, private offices, etc.

Site Name: ULHCOC Neurology		Site Type**: Clinic	
Course or Clerkship Rotation Offered	Academic Period (Year) When Offered	Duration (Weeks)	# of Students per Rotation
Neurology	3 and 4***	2-4	3-6

*If groups of doctors' offices or preceptorial sites are used, list the total number of such sites used for a given required course or clerkship experience.

**Stand-alone clinic, private offices, etc.

*** We are in a one-year transition moving Neurology from the 4th year to the 3rd year

Site Name: University Pediatric Neurologists		Site Type**: Clinic	
Course or Clerkship Rotation Offered	Academic Period (Year) When Offered	Duration (Weeks)	# of Students per Rotation
Neurology	3 and 4***	2-4	2-4

*If groups of doctors' offices or preceptorial sites are used, list the total number of such sites used for a given required course or clerkship experience.

**Stand-alone clinic, private offices, etc.

*** We are in a one-year transition moving Neurology from the 4th year to the 3rd year

Site Name: UL Family Medicine		Site Type**: Clinic		Newburg & Cardinal Station
Course or Clerkship Rotation Offered	Academic Period (Year) When Offered	Duration (Weeks)	# of Students per Rotation	
Family Medicine	3	2	5-6	

*If groups of doctors' offices or preceptorial sites are used, list the total number of such sites used for a given required course or clerkship experience.

**Stand-alone clinic, private offices, etc.

Site Name: Center for Primary Care		Site Type**: Clinic	
Course or Clerkship Rotation Offered	Academic Period (Year) When Offered	Duration (Weeks)	# of Students per Rotation
Family Medicine	3	2	1

*If groups of doctors' offices or preceptorial sites are used, list the total number of such sites used for a given required course or clerkship experience.

**Stand-alone clinic, private offices, etc.

Academic Year 2011-2012

Site Name: Bingham Outpatient		Site Type**: Clinic	
Course or Clerkship Rotation Offered	Academic Period (Year) When Offered	Duration (Weeks)	# of Students per Rotation
Psychiatry	3	6	4-6

*If groups of doctors' offices or preceptorial sites are used, list the total number of such sites used for a given required course or clerkship experience.

**Stand-alone clinic, private offices, etc.

Site Name: James Brown Cancer Center		Site Type**: Clinic	
Course or Clerkship Rotation Offered	Academic Period (Year) When Offered	Duration (Weeks)	# of Students per Rotation
Internal Medicine	3	2-3	~12

*If groups of doctors' offices or preceptorial sites are used, list the total number of such sites used for a given required course or clerkship experience.

**Stand-alone clinic, private offices, etc.

Note: All surgery rotations are inpatient based with individual clinics at each site averaging 3 to 6 hours per week.

ER-7. Each hospital or other clinical facility of a medical education program that serves as a major instructional site for medical student education must have appropriate instructional facilities and information resources.

Appropriate instructional facilities at each hospital or other clinical facility include areas for individual medical student study, conferences, and large group presentations (e.g., lectures). Sufficient information resources, including library holdings and access to other library systems, must either be present in the hospital or other clinical facility or readily available in the immediate vicinity. A sufficient number of computers must be readily available that allow access to the Internet and to other educational software. Call rooms and lockers, or other secure space to store personal belongings, should be available for medical student use.

a. Complete the following table for each clinical facility that is used for any inpatient portion of a required core clerkship rotation. Check the appropriate columns indicating if the listed resource is generally available to students during the clerkship rotation.

Facility Name (list)	Check [<input checked="" type="checkbox"/>]						
	Library	Lecture or Conference Room(s)	Study Area(s)	Computers	Call Rooms	Shower or Changing Area	Lockers
University of Louisville Hospital	X	X	X	X	X	X	X
Veteran's Affairs Hospital	X	X	X	X	X	X	X
Kosair Children's Hospital		X		X	X	X	
Norton Hospital	X	X	X	X	X	X	X
Jewish Hospital		X	X	X	X	X	
Trover Campus	X	X	X	X	X	X	X

b. Comment on the adequacy at each facility of the educational resources checked above and the adequacy of library and information technology services (i.e., Internet access, access to the medical education Web sites, library holdings, interactive databases, etc.) at each facility.

University of Louisville Hospital

The educational resources, library, and information technology services at the University of Louisville Hospital are adequate. The hospital library is a satellite library of the nearby Kornhauser Health Sciences Library of the University of Louisville. Hospital library holdings are fair; however, online print journals and scientific and clinical databases from the Kornhauser Library are accessible via the internet. The hospital library is open 8:00 am to 4:30 pm Monday through Friday with after-hours accessibility 24 hours per day, 7 days per week through security services. Computer terminals with literature search capabilities are available in all clinical units and other areas of the hospital. Personal access devices can be used as well in the hospital. Lecture and conference room space is adequate if booked properly in advance. Areas for conducting discussion rounds can be crowded during peak rounding times of the day. Study areas are scattered throughout the hospital and include the library, conference rooms, and call rooms. Students on the surgery clerkship take overnight call and call room and shower facilities appear appropriate except students are sometimes reluctant to use student call rooms because they are in

a different location than the resident call rooms. Students were choosing to sleep on couches in the resident call room so they would not miss when a trauma case arrived in the emergency department. Recently, a trauma beeper for student use has been put in place and is working, allowing students to utilize their designated call rooms and not miss trauma cases. Students are assigned lockers on the obstetrics and gynecology clerkship. Other clerkships have designated areas for student belongings. Some students express dissatisfaction regarding lack of individual study space and sufficient storage space for personal belongings.

Veterans Administration Medical Center

The educational resources, library, and information technology services at Veterans Administration Medical Center are adequate. The hospital library is accessible 24 hours per day, 7 days per week, providing in-house access to several databases, as well as print and electronic journals and books. Electronic resources are available on all facility computers and remotely from home. Online print journals and scientific and clinical databases from the Kornhauser Library are also accessible via the internet. Lecture and conference space is adequate, as are study areas. Call rooms and showers are available; however, students on core required clerkships do not take overnight call at the hospital. Lockers are available in most team rooms and students provide their own locks.

Kosair Children's Hospital

Kosair Children's Hospital and Norton Hospital are part of the Norton Healthcare Inc. Hospital System. The hospitals are located directly across Chestnut Street from each other and are linked by a pedestrian walkway. Students have access to the library that is housed in Norton Hospital. Students can also access online print journals and scientific and clinical databases from the Kornhauser Library via the internet. Computer terminals with literature search capabilities are available in all clinical units and other areas of the hospital. Personal access devices can be used as well in the hospital. Study space is available at the library. Lecture and conference room space is adequate if booked properly in advance. Call rooms and showers are available. There are no lockers available for students. Some students express dissatisfaction regarding lack of individual study space and sufficient secure storage space for personal belongings.

Norton Hospital

The educational resources, library, and information technology services at Norton Hospital are adequate. The library provides an excellent source of journals and textbooks and computers with internet access for electronic literature searches. Library hours are Monday through Thursday from 8 am until 5 pm and 8 am to 4:30 pm on Friday. Students can also access online print journals and scientific and clinical databases from the Kornhauser Library via the internet. Computer terminals with literature search capabilities are available in all clinical units. Personal access devices can be used as well in the hospital. Study space is available at the library. Lecture and conference room space exists; however, these rooms are heavily used and must be booked in advance. Call rooms and showers are available. Lockers are available on a limited basis.

Jewish Hospital

Jewish Hospital no longer maintains a dedicated library facility. Computer terminals with literature search capabilities are available in all clinical units and other areas of the hospital. Students can access online print journals and scientific and clinical databases from the Kornhauser Library via the internet. Personal access devices can be used as well in the hospital. Study space is available. Lecture and conference room space is adequate. Call rooms and showers are available. There are no lockers. Students can access the physician lounge, store belongings there, and study.

Trover Campus

The educational resources, library, and information technology services at Trover Campus are adequate. A medical library with computer carrels with Internet access and literature search capability and multiple study areas in the form of conference rooms and study carrels are available to students 24/7. Library staff is available to assist students during normal business hours. Additional study space is available in the student lounge, and the ULTC office suite. Multiple lecture and conference rooms are available for student use in both the hospital and the Madisonville Baptist Health Family Medicine Residency Associates Building. Desktop computers are available in the library and student lounge. Laptop computers and a desktop computer are available for student use in the ULTC office suite. A call room, with shower facility, is available for student use in the hospital. Student lockers are available in the student lounge.

ER-8. Required clerkship rotations at a medical education program should be conducted in health care settings in which resident physicians in accredited programs of graduate medical education, under faculty guidance, participate in teaching the medical students.

It is understood that, at some medical education programs, there may not be resident physicians at some community hospitals or community clinics or the offices of community-based physicians. In those cases, medical students must be adequately supervised by attending physicians.

Refer to information for standard IS-12-A in Section I: Institutional Setting.

ER-9. A medical education program must have written and signed affiliation agreements in place with its clinical affiliates that define, at a minimum, the responsibilities of each party related to the educational program for medical students.

Written agreements are necessary with hospitals that are used regularly as inpatient sites for core clinical clerkship rotations. Additionally, affiliation agreements may be warranted with other instructional sites that have a significant role in the clinical education program.

Affiliation agreements should address, at a minimum, the following topics:

- The assurance of medical student and faculty access to appropriate resources for medical student education.
- The primacy of the medical education program over academic affairs and the education/assessment of medical students.
- The role of the medical education program in the appointment and assignment of faculty members with responsibility for medical student teaching.
- Specification of the responsibility for treatment and follow-up when a medical student is exposed to an infectious or environmental hazard or other occupational injury.

If department heads of the medical education program are not also the clinical service chiefs at affiliated institutions, the affiliation agreement must confirm the authority of the department head to ensure faculty and medical student access to appropriate resources for medical student education.

The medical education program should advise the LCME and the CACMS, when applicable, of anticipated changes in affiliation status of the program's clinical facilities.

ER-10. In the relationship between a medical education program and its clinical affiliates, the educational program for medical students must remain under the control of the program’s faculty at each instructional site.

Regardless of the location in which clinical instruction occurs, department heads and faculty of the medical education program must have authority consistent with their responsibility for the instruction and assessment of medical students.

The responsibility of the clinical facility for patient care should not diminish or preclude opportunities for medical students to undertake patient care duties under the appropriate supervision of the medical education program’s faculty and residents.

a. For each clinical teaching site at which students complete the inpatient portions of one or more required core clerkship rotations*, insert a copy of the current affiliation agreement with the medical school in the Appendix (red binder) Appendix ER-10.a*1.

Note: Our agreements did not contain a statement regarding the learning environment. An addendum to the master affiliation agreement (Appendix ER-10.a*2) was prepared in late 2012 and is now being circulated for signature.

***Does not include clinical selectives, subspecialty, or widely dispersed, purely ambulatory clerkship rotations (e.g., at individual preceptors’ offices).**

b. For each inpatient clinical teaching site in (a) above, check if there is a signed affiliation agreement and if the agreement specifies the listed elements:

Clinical Teaching Site	Signed Affiliation Agreement	Guarantees Student/Faculty Access to Resources	Statement of the Primacy of the Medical Education Program	Role of Medical Education Program in Faculty Appointment/Assignment	Specification of Responsibility for Treatment/Follow-up of Student Occupational Exposure	Shared Responsibility for Appropriate Learning Environment
Norton Kosair	X	X	X	X	X	X
Norton	X	X	X	X	X	X
Jewish	X	X	X	X	X	X
UofL Hospital	X	X	X	X	X	X
VAMC	X	X	X	X	X	X
Trover Clinic	X	X	X	X	X	X

c. If not explicitly defined in the affiliation agreements, describe the mechanisms in place (whether formal or informal) at each site to ensure the medical school's authority to conduct educational activities for its students.

The authority is explicitly defined in each agreement and/or amendment.

See also information for standards MS-30 and MS-31-A in Section III: Medical Students.

ER-11. An institution that provides a medical education program must provide ready access to well-maintained library facilities sufficient in size, breadth of holdings, and technology to support its educational and other missions.

Students, faculty, and others associated with an institution that provides a medical education program should have physical or electronic access to the current and prior volumes of leading biomedical, clinical, and other relevant periodicals, self-instructional materials, and any other information resources required to support the institution's missions, including the educational program.

a. Provide the name and year of appointment for the director of the principal library for the medical school and the title of the person to whom the library director reports. Note any other schools or programs served by the library.

Neal D. Nixon is the director of the Kornhauser Health Sciences Library. He is a professor with tenure. He was appointed director in 2001 and has served on the Kornhauser faculty since 1980. Professor Nixon reports to Robert Fox, Dean of University Libraries. In addition to the School of Medicine, Kornhauser Library serves the schools of Dentistry, Nursing, and Public Health and Information Sciences.

b. Briefly summarize any campus-wide or consortium agreements that extend the library's access to information resources. Describe whether the library interacts with other university and affiliated hospital libraries and the means by which those interactions take place.

Kornhauser Library is a member of several consortiums that provide additional access to materials and services for our users. These include:

Greater Midwest Region of the National Network of Libraries of Medicine – provides free interlibrary loans throughout a 10-state region and provides additional support for outreach. Within this network Kornhauser serves as contractual Resource Library providing information to healthcare professionals in the western half of Kentucky.

KYVL (Kentucky Virtual Library) – a state supported association that provides general resources for all citizens of Kentucky.

Metroversity – an association of libraries of institutions that support post-secondary education in the Louisville metropolitan area. Benefits include reciprocal borrowing privileges and community networking.

OCLC – Online Computer Library Center, Inc., an international organization of shared holdings information.

Association of Research Libraries (ARL) – a national organization of the top research libraries of North America.

Kentucky Medical Library Association – a consortium of medical libraries (both academic and hospital) in the state of Kentucky. Benefits include reciprocal borrowing and collaborative purchasing agreements.

Kornhauser Library manages the library services at University Hospital. In addition, Kornhauser leads the Louisville Medical Library Consortium (LMC). This group does cooperative purchasing and license agreements for all of the teaching hospitals associated with the School of Medicine and also for several hospital libraries throughout the state.

c. Complete the following table, as appropriate, for the library:

Total user seating	302
Number of small-group study rooms	6
Number of public workstations	29
Number of computer classrooms	0
Number of computers or workstations in computer classrooms	0

d. Complete the following table showing library collections for the current and preceding two academic years:

	Current Academic Year	One Year Prior	Two Years Prior
Total current journal subscriptions (all formats)	6,676	5,290	5,273
Total journal subscriptions (print only)	277	300	510
Number of book titles (all formats)	86,040	85,974	84,827
Number of book titles (print only)	85,308	85,245	84,473
Number of databases	75	75	67
Number of external documents provided to users	10,844	11,511	10,853
Total collection expenditures	1,658,474	1,735,115	1,511,644

ER-12. The library services at an institution that provides a medical education program must be supervised by a professional staff that is responsive to the needs of the students, faculty, and others associated with the institution.

The library staff serving an institution that provides a medical education program should be familiar with current regional and national information resources and data systems.

a. Complete the following table describing full-time equivalent (FTE) staffing for the library:

	Library Services
Number of professional staff	7.7
Number of technical and paraprofessional staff	13
Number of clerical support staff	0
Number of student or hourly support staff	6

b. Describe the mechanisms used to ensure the ongoing development and maintenance of the professional skills of staff members in the library.

All library faculty and staff participate in ongoing professional development opportunities. Kornhauser sponsors several continuing education seminars each year and holds an in-service day annually to update employee skills. Faculty members are required to include professional development activities such as continuing education, attendance at professional meetings and participation in professional associations in their annual work plans. They are also required to contribute to the scholarly communications of our field with publications, course development and presentations.

c. Describe the means by which the library supports medical education. How does the library interact with other education support units (e.g., the office of medical education or curriculum planning group, the information services unit)? Describe the ways in which staff members in the library are involved in curriculum planning and curriculum delivery. For example, do library services staff members teach in any courses that are required for medical students or serve as members or *ex officio* members of the medical school curriculum committee or its subcommittees?

Librarians at Kornhauser are involved in supporting medical education in a number of ways. They are involved in developing curricula and teaching evidence based medicine for the Neurology, Family Medicine, and Pediatrics clerkships. These courses are taught either as a one or two-hour one-time course during each clerkship rotation and emphasize orientation to and hands-on practice with evidence-based medicine tools provided by the library with an emphasis on selecting, using, and evaluating clinical point of care tools (e.g. DynaMed and Essential EvidencePlus) as well as traditional instruction in Pubmed searching. The pediatrics course is taught with a Pediatrics attending physician and incorporates theoretical aspects of evidence based medicine in addition to the hands-on practice with information tools. Librarians serve as *ex-officio* members for curriculum committees as requested.

d. Describe the means by which the library:

i. Addresses institutional faculty and student needs for quiet and collaborative group and individual study.

Kornhauser Library provides a broad range of study environments for our users. These include group collaboration areas in our study rooms and over 300 available study seats throughout the library. Many of our seats include privacy carrels and we have also installed some privacy panels in selected study areas. In addition we have designated the library's top floor as a quiet study area. The results of the student self-study survey indicate that 71% of the students are satisfied or very satisfied with the Kornhauser Library study environment and 88% of the students are satisfied or very satisfied with the informational resources offered by library. The Assistant Vice President for Health Affairs/Facilities, Planning, and Management is currently working with the Director of the library to relocate some of the holdings and use the freed up space to create additional student study areas.

ii. Provides public access workstations and printing.

Kornhauser provides 29 desktop workstations located throughout the library. In addition we circulate over 50 laptops to our clientele. The library has wireless access that covers all public areas. Printing is made available through the university's Uniprint system, which offers printing and photocopying at a nominal fee. Our equipment includes two commercial scale photocopier/printers and a public use scanner. To minimize the need for printing, Kornhauser Library offers extensive document delivery services. We will provide a scanned copy of almost any article published at no cost to the user.

e. List the hours during which the library building and the public access computers are available to faculty members, residents, and students during the academic year.

During the academic year Kornhauser Health Sciences Library is open Monday – Thursday 7:30 a.m. – 11:00 p.m., Friday 7:30 a.m. – 6:00 p.m., Saturday 10:00 a.m. – 6:00 p.m., and Sunday 1:00 p.m. – 9:00 p.m. for a total of 88.5 hours weekly. We offer expanded hours prior to exams. The results of the student self-study survey indicate that 55% of the students are satisfied or very satisfied with library hours. The Assistant Vice President for Health Affairs/Facilities, Planning, and Management, at the direction of the Interim Dean, is working with the Director of the library to determine whether we can increase library hours, particularly on the weekend.

f. Describe the methods used to provide faculty members, residents, and students with access to library resources from off-campus sites.

All of the University of Louisville Libraries online resources can be accessed off-campus by use of our proxy service. In addition many of our online resources have mobile applications. Anyone with an authorized ULink account can access these services.

ER-13. An institution that provides a medical education program must provide access to well-maintained information technology resources sufficient in scope and expertise to support its educational and other missions.

- a. Provide the name and year of appointment for the director of the information technology (IT) services unit and the title of the individual to whom the director reports. List any other schools or programs serviced by the director's unit.**

Kent Gardner, the Director of Academic Technology, School of Medicine, was appointed in 2004; he reports to Dr. Ann Shaw, the Associate Dean for Medical Education.

- b. Briefly summarize any campus-wide or consortium agreements that extend the IT service unit's access to information resources (e.g., university data network, Internet-2 connection). Describe whether the IT services unit interacts with university and affiliated hospital information networks and the means by which those interactions take place.**

- The University's Central IT department provides a very robust data network to all University sites. All locations have 100 MB connectivity to the desktop, with 1 GB available upon request. Additionally, the University's pervasive wireless project has extended Wireless 802.11N access to all classroom, offices and common areas of the University.
- The University is also a hub for Internet-2 connectivity for the state. Faculty can request a direct Internet-2 connection with other Internet-2 institutions from the University's central IT department. Provided via four aggregated T1 lines, this connectivity is extended to our Trover Campus in Madisonville as well.
- Faculty and Staff may also request a VPN account from the University's Central IT Department, which provides them with remote access equivalent to the technology resources they have on campus.
- The University's Library provides proxy access to all of its electronic holdings, making them available from anywhere.
- With the help of a recent HRSA grant the School of Medicine replaced the University's aging teleconferencing bridge with a state of the art video conferencing bridge. This allows faculty staff and students located off campus to video conference and share content with anyone on campus and for global video and content sharing. Additionally, all of our lecture halls are now capable of broadcasting video conferences to anywhere.
- The School of Medicine technologist works closely with counterparts at University of Louisville Hospital on a variety of technology issues. This works by direct communication with the appropriate people in each organization. Interaction with Norton Hospital in the area of video conferencing and other University resources is handled fairly well at the low- to mid-level, but political tensions between the two organizations make large initiatives more difficult. Interactions on technical issues with Jewish Hospital were complicated by an extensive outsourcing push at Jewish, but communications are improving as Jewish pulls back some of its IT services in house.

- Due to the restrictive nature of the military in light of the current national security concerns, interaction with the Veteran's Administration Hospital is limited to video conferencing of grand rounds, etc. The School's Office of Academic Technology also supports the AHEC program with outreach to rural Kentucky in technical matters, including database support and video conferencing.
- c. **Concisely describe any improvements in facilities and equipment since the last full accreditation survey that address the changing physical and virtual learning environments for medical students and faculty members. Describe, for example, the availability of telecommunications technology that links to clinical sites or regional instructional sites/campuses.**
- With a recent HRSA grant for nearly \$1 million, the School has been able to upgrade all aspects of video conferencing, including the purchase of a state of the art video conferencing bridge, a content and streaming server, allowing live streaming or recording for later viewing of any educational activity, and the installation of a video gatekeeper that allows the School to be part of the State dialing plan, allowing 7-digit video dialing to most telehealth sites in the state. This upgraded system has been particularly effective in improving communications with our Trover Campus. The video gatekeeper resolves virtually all firewall issues previously encountered. Additionally, the quality of the signal has been greatly enhanced by the modern bridge and state of the art endpoints added at the main campus. Both classroom educational experiences and administrative meetings have benefited from these advances.
 - Additionally, the School purchased the METI Learning Spaces solution, allowing the broadcasting or digital storage of our SP and SIM sessions for later review by the students, and for access by faculty, who can do annotations to the captured video, providing feedback to the students.
 - In fall 2008, the University implemented the Tegrity lecture capture system. Since then, nearly all of our preclinical classes have been recorded for use by students. This system captures all activity on the computer being displayed in the lecture hall, and records the instructor. Students may take notes in real time, or after the fact in playback. This system has become a vital study tool for our students.
 - The School has placed i-Clicker audience response base stations and installed the i-Clicker software in all classrooms on campus. All incoming first years students are provided with a "clicker" for use in class. Many classes use this for formative feedback, and some use it for quizzes, etc.
 - With the roll out of the pervasive wireless 802.11N wireless network, students may access the internet in full classrooms, all at once, without any noticeable slow down. Additionally, this access can be reached from virtually anywhere on campus. Coupled with the recent laptop requirement, this provides students access to materials from anywhere, at any time, without the need for more extensive computer labs.
 - In each of the School's twelve "Unit labs," a home location where each student has a desk with a power plug, we have installed two large LCD monitors, one on each side of the room. These monitors can broadcast from a central location for instruction by faculty, or can be used at the unit lab level for small group activities or for student and tutor lead study groups. Additionally, each Unit Lab has three attached Problem Based Learning rooms. Each of

these PBL rooms has been equipped with an HP Touchsmart computer. These are large 22” touch monitors, with wireless mouse and keyboard to facilitate group study.

d. Note if there is a wireless network on campus and whether wireless capability is available in the library, in classrooms, and in student study areas.

The University’s pervasive wireless 802.11N network is available in all locations on campus, including the library, classrooms, student study areas, the courtyard, etc.

e. Note if the capability exists for medical students, residents, and faculty to access educational resources (e.g., curriculum materials, library resources) from off-campus sites.

Students can access all of their curricular information through Blackboard and RedMed from offsite. Also students may access Tegrity recordings of lectures from any internet connected computer. Many of the library resources are available to students, faculty, residents and staff through proxy access from offsite.

ER-14. The information technology staff serving an institution that provides a medical education program must be responsive to the needs of the medical students, faculty, and others associated with the institution.

The information services staff should facilitate the timely access of medical students, faculty, and others associated with the institution at each instructional site to information resources required by the curriculum and other missions of the institution and have sufficient expertise to facilitate their use.

a. Complete the following table describing full-time equivalent (FTE) staffing of the information technology (IT) services unit:

	Information Technology Services
Number of professional staff	4
Number of technical and paraprofessional staff	2
Number of clerical support staff	0.2
Number of student or hourly support staff	0

b. Describe the mechanisms used to assure the ongoing development and maintenance of the professional skills of information technology services staff members.

IT staff attend conferences and training on an as needed basis, usually at least one such training or conference per staff member each year. For example the Director of Instructional Technology typically attends the Educause Annual conference and the Tegrity User's conference each year. The classroom and student support technician attended Microsoft Active Directory training this year, and the Communications and software support technician attended a conference on digital signage.

c. Describe how the information technology and services unit supports medical education, including support for instructional development and curriculum delivery. For example, are there resources available for faculty members seeking to develop or maintain Web-based teaching materials or for faculty to learn to use technology for distance education?

The School of Medicine Office of Academic Technology gives active support to faculty in the areas of classroom use of technical products and also for distance education. They have additionally begun to provide limited direct support in the creation of technical instructional materials. The University's Delphi Center for Teaching and Learning also provides pedagogical support as well as support for Blackboard, the University's Web-based course management system. Departments rely on a Tier 1 system of desktop support for faculty computers, in which each unit either has a dedicated technologist or contracts with the University's Central IT Department for desktop support.

END OF SECTION V