MEDICINE (MED)

Courses numbered 500-799 are considered Graduate-level coursework. Courses numbered 800+ are considered professional/first-professional-level courses.

Subject-area course lists indicate courses currently active for offering at the University of Louisville. Not all courses are scheduled in any given academic term. For class offerings in a specific semester, please contact the School of Medicine student records coordinator (natalie.harper@louisville.edu).

Course Fees

Some courses may carry fees beyond the standard tuition costs to cover additional support or materials. Program-, subject- and course-specific fee information can be found on the Office of the Bursar website (http://louisville.edu/bursar/tuitionfee/).

MED 816. Special Project-Medicine

1-16 Units

Description: This course is to be arranged to fit individual needs to cover topics of current interest, to participate in research projects or to receive some advanced training. Student must complete the Special Project form, have it signed by your mentor and return to Student Affairs in order to receive credit.

Note: Method of Evaluation to be determined by faculty mentor, based on the specific project.

Course Attribute(s): CBL - This course includes Community-Based Learning (CBL). Students will engage in a community experience or project with an external partner in order to enhance understanding and application of academic content.

For class offerings for a specific term, refer to the Schedule of Classes (http://htmlaccess.louisville.edu/classSchedule/setupSearchClassSchedule.cfm)

MED 862. Radionuclides in Medicine

1 Unit

Description: Second-year elective. Selection of a radionuclide for medical diagnosis and therapy. Application of scinti-imaging in organ diseases. Invitro radionuclide applications and radioimmunoassays.

Note: Method of Evaluation is choice of writing a review paper or taking a multiple-choice exam.

For class offerings for a specific term, refer to the Schedule of Classes (http://htmlaccess.louisville.edu/classSchedule/setupSearchClassSchedule.cfm)

MED 901. Internal Medicine Clerkship

10 Units

Description: Required Third-year clerkship. This eight-week medicine clerkship has two components: 1) a general medicine hospital rotation, and 2) two sub-specialty rotations. Students will encounter a broad diversity of patients and disease states. Students will be provided an opportunity to learn clinical medicine using the patient's history and physical examination, diagnostic modalities and medical literature; and to develop strong interpersonal and professional skills.

Note: Method of Evaluation includes evaluation of clinical knowledge skills and attitudes by observation of performance by the attending physician, residents and fellows; students must receive a passing score on the clinical evaluation, National Board of Medical Examiners Subject Examination in Internal Medicine; complete all required assignments; and pass a review by the Department of Medicine Education and Evaluation Committee.

Course Attribute(s): CBL - This course includes Community-Based Learning (CBL). Students will engage in a community experience or project with an external partner in order to enhance understanding and application of academic content.

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MED 902. Acting Internship in Internal Medicine

4 Units

Term Typically Offered: Fall, Spring, Summer **Prerequisite(s):** Fourth-year class standing.

Description: Al selective. This four-week rotation is designed to help students prepare for the enormous responsibility of caring for hospitalized patients during their first postgraduate year. During this rotation, students will be assigned many of the responsibilities and activities that they will experience during internship; using these experiences as the basis for learning. Students join a teaching team, composed of a full-time faculty attending, fellow and/or an upper level resident, interns and third year students. As an acting intern, the fourth year student's level of responsibility is that of a graduate intern. Students are responsible for the evaluation and management of their assigned patients and the timely completion of medical records, including hospital discharge summaries. Students are expected to take call with their team, including night, weekends and holidays.

Note: Method of Evaluation includes evaluation of clinical knowledge, skills and attitude by observation of performance by attending physicians, residents and fellows; and receiving a minimum score on Self-Directed Learning Presentation.

Course Attribute(s): CBL - This course includes Community-Based Learning (CBL). Students will engage in a community experience or project with an external partner in order to enhance understanding and application of academic content.

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MED 903. Practical Internal Medicine

Grading Basis: Pass/Fail

Term Typically Offered: Fall, Spring, Summer

 $\label{pre-equisite} \textbf{Pre-equisite}(\textbf{s}) \text{: Fourth-year standing; this elective is only offered}$

4/24-5/5/23

Description: You must be ACLS certified prior to taking this elective. A two-week course in practical skills/knowledge that will help graduating seniors be better prepared for intern year. It will be a mix of didactic sessions, interactive case-based learning, simulation sessions, and standardized patient experiences. We will cover how to approach medical emergencies in the hospital, such as chest pain, arrhythmia, shortness of breath, bleeding, and altered mental status. We will also cover non-medical but important topics such as Quality Improvement, Evidence Based Medicine, and balancing clinical responsibilities with need for independent study. We will discuss and students will have the opportunity to practice skills such as calling consults, giving hand-off, discussing code status and having other difficult discussions. Lastly, students will have simulated mock code, central line, and standardized patient experiences.

Note: This elective will only be offered 3/22-4/2/21.

For class offerings for a specific term, refer to the Schedule of Classes (http://htmlaccess.louisville.edu/classSchedule/setupSearchClassSchedule.cfm)

MED 905. Area Health Education Center (AHEC) Rotation-Medicine

1-4 Units

Prerequisite(s): Fourth-year standing; the elective must be scheduled through the Clinical Coordinator in Internal Medicine and the AHEC Office. Description: This is a four-week experience. The Kentucky Area Health Education Center (AHEC) System offers students the opportunity to participate in Internal Medicine practices located throughout the Commonwealth, providing a unique educational experience away from the university setting. The program emphasizes and promotes primary care. Students are encouraged to participate in the community to gain an understanding of how community characteristics affect health care delivery. Students are expected to live in the area of the practice they select for the length of their rotation. The six regional AHEC Offices provide financial assistance to students in the form of reimbursement for housing expenses and meals. Students residing with family or friends during the rotation receive only the meal reimbursement. To receive a dislocation allowance, students must complete a Fact Sheet, mailed to them after their choices of an AHEC practice is confirmed by the preceptor. To allow sufficient time for c

Note: Method of Evaluation is evaluation of clinical knowledge, skills and attitude by observation by the faculty preceptor.

Course Attribute(s): CBL - This course includes Community-Based Learning (CBL). Students will engage in a community experience or project with an external partner in order to enhance understanding and application of academic content.

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2 Units MED 906. Clinical Elective-Urban

1-4 Units

Prerequisite(s): 4th year standing.

Description: This is a two- or four-week experience. Students participate in the care of ambulatory patients in an urban internal medicine private practice. Students will become more knowledgeable and skilled in the diagnosis and treatment of patients with conditions commonly seen in a community-based medical practice. The student must complete the Off-Campus Request Form and have it approved by the departmental clerkship director.

Note: Method of Evaluation includes: evaluation of patient care, medical knowledge, and interpersonal and communication skills; systems-based practice; practice-based learning; and improvement, and professionalism.

For class offerings for a specific term, refer to the Schedule of Classes (http://htmlaccess.louisville.edu/classSchedule/setupSearchClassSchedule.cfm)

MED 907. Clinical Elective, Off-Campus

1-16 Units

Prerequisite(s): Fourth-year standing; the student must complete the Off-Campus Request Form and have it approved by the departmental clerkship director.

Description: This is a two- or four-week elective. A clinical experience may be obtained in an approved program in Internal Medicine under the supervision of a full-time member of a duly recognized educational or research institution or a private community physician.

Note: Method of Evaluation includes: evaluation of patient care, medical knowledge, interpersonal & communication skills, systems-based practice, practice-based learning & improvement, and professionalism.

Course Attribute(s): CBL - This course includes Community-Based Learning (CBL). Students will engage in a community experience or project with an external partner in order to enhance understanding and application of academic content.

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MED 909. Medicine Research

1-16 Units

Prerequisite(s): Fourth-year standing, permission of faculty mentor, and students must complete the Independent Study/Research Form to receive credit for this elective.

Description: This is a two- or four-week experience. The research elective can be taken in any area of research in which a Department of Medicine faculty member is involved. It is expected that the student will participate in and do a research project and participate in its publication or presentations on completion. The student will learn research techniques and the general approach to research, as well as improve the ability to evaluate published research. In general, projects will be assigned that can be completed in the time allotted.

Note: Method of Evaluation is evaluation of medical knowledge, interpersonal & communication skills, practice-based learning & improvement, and professionalism.

Note: Third-year students will also be considered on a limited basis. **Note:** The department of Dermatology is not participating in the research elective.

Course Attribute(s): CBL - This course includes Community-Based Learning (CBL). Students will engage in a community experience or project with an external partner in order to enhance understanding and application of academic content.

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MED 910. Ambulatory Rotation-Medicine

Prerequisite(s): Fourth-year standing.

Description: AR Selective. This is a four-week ambulatory experience at the 550 Clinic. Students wanting to register for an AR in Allergy or Dermatology must use course number MED 922 (Allergy) or MED 925 (Dermatology). All other arrangements must be made through the Clinical Coordinator for the Internal Medicine Department.

Note: Method of Evaluation includes evaluation of patient care, medical knowledge, interpersonal and communication skills, system-based practice, practice-based learning and improvement, and professionalism. Course Attribute(s): CBL - This course includes Community-Based Learning (CBL). Students will engage in a community experience or project with an external partner in order to enhance understanding and application of academic content.

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MED 912. EKG Interpretation

2 Units

1-4 Units

Prerequisite(s): Fourth-year standing.

Description: The elective is available for two weeks. The student in this course will learn EKG interpretation. Students will participate in extensive self-study EKG curriculum, and have intensive in-person instruction sessions on EKG readings weekly.

Note: Method of Evaluation is EKG skills quiz and evaluation of medical knowledge, interpersonal and communication skills, practice-based learning & improvement and professionalism.

For class offerings for a specific term, refer to the Schedule of Classes (http://htmlaccess.louisville.edu/classSchedule/setupSearchClassSchedule.cfm)

MED 915. Cardiology

1-4 Units

Prerequisite(s): 4th year standing.

Description: This elective is available for two or four weeks, inpatient or with a private practice group. This course will offer the student an opportunity to observe and participate in the practice of clinical cardiology. The student will provide the initial diagnostic history and physical examination on the patients and, with the guidance of the resident and the overseeing of the fellow, will prepare a presentation for the faculty assigned to the service. Patients will be seen in the CCU and on general wards. The student will be responsible for electrocardiographic interpretation to be checked by the resident/fellow, and attending. The student will attend and participate in daily morning rounds; perform cardiovascular consultation and admissions; daily case presentation and discussion of management with attending and team. Students will have the opportunity to observe cardiac catheterizations, echos, and stress tests.

Note: Method of Evaluation is evaluation of patient care, medical knowledge, interpersonal & communication skills, systems-based practice, practice-based learning & improvement and professionalism.

For class offerings for a specific term, refer to the Schedule of Classes (http://htmlaccess.louisville.edu/classSchedule/setupSearchClassSchedule.cfm)

MED 925. Dermatology

1-4 Units

Prerequisite(s): Fourth-year standing.

Description: Fourth-year AR Selective. This is a four-week elective or a four-week AR Selective and offers a clinical experience in dermatology. The student will see dermatologic patients in the clinics at Ambulatory Care Building, Veterans Administration Medical Center, Kosair Children's Hospital, UofL Division of Dermatology, and other private practice offices. The student will also spend time in dermatologic surgery and dermatopathology. At the end of the experience, students will appreciate the intricacies of cutaneous medicine, surgery and pathology; be able to communicate linguistically with the dermatologic consultant and would know when to obtain appropriate dermatologic consultation. Note: Method of Evaluation is evaluation of patient care, medical knowledge, interpersonal and communication skills, systems-based practice, practice-based learning and improvement, and professionalism. Course Attribute(s): CBL - This course includes Community-Based Learning (CBL). Students will engage in a community experience or project with an external partner in order to enhance understanding and application of academic content.

For class offerings for a specific term, refer to the Schedule of Classes (http://htmlaccess.louisville.edu/classSchedule/setupSearchClassSchedule.cfm)

MED 930. Endocrinology and Metabolism

1-4 Units

Prerequisite(s): Third-year standing.

Description: This elective can be taken for two or four weeks and is a clinical experience dealing with a wide spectrum of endocrine and metabolic problems as seen on both inpatient consultative as well as outpatient clinic settings. Students will be given reading assignments from major textbooks of endocrinology as well as literature reviews on the subjects commonly encountered in clinical practice and of current research interest. Students will revisit endocrine physiology and its application to clinical situations; will be given an overview of the relationships of clinical laboratory to the care of patients with endocrine problems and enhance the student's skills in interpretation of laboratory data; will understand the appropriate utilization of laboratory tests for endocrine patients and experience the diagnosis of endocrine and metabolic disorders and their management.

Note: Method of Evaluation is evaluation of patient care, medical knowledge, interpersonal and communication skills, systems-based practice, practice-based learning and improvement, and professionalism. Course Attribute(s): CBL - This course includes Community-Based Learning (CBL). Students will engage in a community experience or project with an external partner in order to enhance understanding and application of academic content.

1-4 Units

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MED 940. Infectious Diseases

Prerequisite(s): Third-year standing.

Description: This is a two- or four-week elective and is designed to allow students to acquire familiarity with and expertise in dealing with diagnostic and therapeutic problems in infectious diseases. Students will answer clinical infectious diseases consultative requests with extensive patient evaluations resulting in coherent concise problem lists, recommendations for diagnosis and therapy modalities and appropriate references to the literature. Students will be expected to become familiar with clinical presentations of bacterial, viral, fungal rickettsial, spirochaetal and parasitic infections as well as with the clinical microbiology and immunology. Instruction in the above and on a wide range of antimicrobial agents used in the treatment of infections, including clinical indications, pharmacology and toxicology will be offered. Aspects of preventive medicine and epidemiology will be included. Students will also be expected to act independently and to read extensively on subjects pertinen

Note: Method of Evaluation is evaluation patient care, medical knowledge, interpersonal and communication skills, systems-based practice, practice-based learning and improvement, and professionalism.

Course Attribute(s): CBL - This course includes Community-Based Learning (CBL). Students will engage in a community experience or project with an external partner in order to enhance understanding and application of academic content.

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MED 945. Pulmonary Consultation

Prerequisite(s): Third-year standing.

Description: This two- or four-week elective is a practical clinical experience in pulmonary disease and applied physiology will be provided. Patients from the wards as well as clinics will be seen. Students will have the opportunity for correlation of history, physical examination and physiological roentgenographic studies. They will be expected to be present for invasive diagnostic procedures including bronchoscopy. The student will learn how to approach the patient with respiratory complaint, take an adequate history, do an adequate physical examination, observe x-rays and come up with a logical differential diagnosis and suggest practical and cost effective diagnostic procedures. The patients will be followed on a daily basis as consultant. The important objective of this course is to teach the students how to act as consultants rather than primary care physicians. Attendance and participation in Journal Club and teaching conferences are part of the elective experience. The student will have sufficient time for reading in conjunction with the clinical experience.

Note: Method of Evaluation is evaluation of patient care, medical knowledge, interpersonal and communication skills, systems-based practice, practice-based learning and improvement, and professionalism. Course Attribute(s): CBL - This course includes Community-Based Learning (CBL). Students will engage in a community experience or project with an external partner in order to enhance understanding and application of academic content.

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Units MED 946. Pulmonary/Critical Care

Prerequisite(s): Fourth-year standing.

Description: ICU Selective. This is a two-week ICU experience. Students will be active members of physicians teams who admit and care for patients in the Medical Intensive Care Unit. Emphasis will be placed on the comprehensive care of critically ill patients, airway and ventilator

Note: Method of Evaluation is evaluation of patient care, medical knowledge, interpersonal and communication skills, systems-based practice, practice-based learning and improvement and professionalism.

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MED 950. Hematology/Medical Oncology

management, and handling medical emergencies.

1-4 Units

Prerequisite(s): Third-year standing.

Description: This two- or four-week elective is designed to permit students to gain clinical experience dealing with all aspects of the treatment of adult malignancies. Students will be expected to round with the attending/fellow and to evaluate consults referred to the Hematology/Oncology Service. At the end of the experience, students should be familiar with the principles of diagnosis and treatment of oncology disorders; understand the role of the consultant in patient management; and understand the importance of and techniques for critical evaluation of medical literature. The student will participate in ambulatory care of patients with attending staff at the Brown Cancer Center, and in weekly conferences at the Cancer Center Tumor Board, Radiation Oncology/Medical Oncology conferences, Hematology conferences and Hematology/Oncology Journal Club.

Note: Method of Evaluation includes evaluation of patient care, medical knowledge, interpersonal and communication skills, systems-based practice, practice-based learning and improvement and professionalism. Course Attribute(s): CBL - This course includes Community-Based Learning (CBL). Students will engage in a community experience or project with an external partner in order to enhance understanding and application of academic content.

For class offerings for a specific term, refer to the Schedule of Classes (http://htmlaccess.louisville.edu/classSchedule/setupSearchClassSchedule.cfm)

MED 951. Bone Marrow Transplant

1-4 Units

1-16 Units

Prerequisite(s): Fourth-year standing; this elective must be scheduled through the Clinical Coordinator for the Internal Medicine Department. Description: This is a four-week elective and will provide an in-depth experience in Bone Marrow Transplantation for leukemias, lymphomas and solid tumors. The student will follow patients from preparative regimen to engraftment and participate in bone marrow harvesting in the operating room. Additionally, the student will gain experience in intensive care hematology/oncology; and management of the immunocompromised neutropenic and thrombocytopenic patients. The goals of this rotation is to understand the role of both autologous and allogeneic marrow transplantation in the treatment of advanced malignation and to gain experience in the management of patients with complex medical problems.

Note: Method of Evaluation is patient management, write-ups, and participation on rounds.



MED 955. Nephrology

Prerequisite(s): Third-year standing.

Description: This elective can be taken for two or four weeks. Principles of renal and electrolyte physiology and hypertension mechanisms will be introduced as they apply to clinical situations. This will be accomplished by direct observation and management of renal service patients, many of who will undergo acute and chronic dialysis for renal failure, urine sediment analysis and interpretation of renal biopsies. Opportunity will exist to participate in the hemodialysis, transplant and hypertension programs. The pathophysiology and treatment of fluid, electrolyte and acid-base disorders will be stressed. The goal of this elective is to have the student develop a more complete understanding of the pathophysiology and treatment of patients with kidney disease. Note: Method of Evaluation is evaluation of patient care, medical knowledge, interpersonal and communication skills, systems-based practice, practice-based learning and improvement, and professionalism. Course Attribute(s): CBL - This course includes Community-Based Learning (CBL). Students will engage in a community experience or project with an external partner in order to enhance understanding and application of academic content.

For class offerings for a specific term, refer to the Schedule of Classes (http://htmlaccess.louisville.edu/classSchedule/ setupSearchClassSchedule.cfm)

MED 957. Nephrology Research

1-16 Units

Prerequisite(s): Fourth-year standing and permission of Division Chief. Description: This elective is available for 4-12 weeks. The Nephrology Division faculty members are all actively engaged in research. Research activities include: second messenger function as it is involved with signal transduction, biological transport, drug disposition in patients with uremia, renal drug metabolism, nephrotoxicity and research with artificial membranes used in dialysis. The student will choose a principle investigator and will spend 1-3 months in the laboratory. When possible, students will be assigned individual projects under the close supervision of their mentor. Students will be involved in study design, data collection and preparation of abstracts and manuscripts of the data as appropriate. Note: Method of Evaluation is that student will be evaluated subjectively by the principle investigator and the Division Chief.

For class offerings for a specific term, refer to the Schedule of Classes (http://htmlaccess.louisville.edu/classSchedule/ setupSearchClassSchedule.cfm)

MED 965. Gastroenterology/Hepatology

1-4 Units

Prerequisite(s): Third-year standing.

Description: This is a two- or four-week elective that allows the student to obtain clinical experience with disorders of gastrointestinal tract, liver, pancreas and nutrition. The student will be assigned patients for whom consultation from the Division is requested. After performing a history and physical examination and after presentation to the supervisor, the student will outline the diagnostic impression and recommendation. This activity will be supervised by the attending team in Gastroenterology including a faculty member of the Division. The student will participate in all rounds of the Division as time allows, including work rounds and formal Division teaching conferences such as GI grand rounds, Pathology, Radiology, Research Conferences and Journal Club. The student will have exposure to endoscopic, intubation and biopsy procedures and an attempt to teach how to perform sigmoidoscopy. Outpatient exposure for follow-up of patients will occur in ACB and VAMC settings. The goal of

Note: Method of Evaluation is evaluation of patient care, medical knowledge, interpersonal and communication skills, systems-based practice, practice-based learning and improvement, and professionalism. Course Attribute(s): CBL - This course includes Community-Based Learning (CBL). Students will engage in a community experience or project with an external partner in order to enhance understanding and application of academic content.



MED 970. The Art of Wellness

2 Units

Prerequisite(s): Fourth-year standing.

Description: This longitudinal elective will focus on the intersection between physician wellness and the arts. The course will be highly individualized and will emphasize developing personal strategies to protect against future burnout and promote wellness through attention to body, mind and spirit. The foundation for the course lies in five required general sessions throughout the year that include faculty presentations of pertinent content, individual assessment of wellness, development of individual goals for the year, group reflection, and a final sharing of personal projects. General sessions will be enhanced by student assignment to specific tracks; each student will be required to select a mentor from a list of track leaders with expertise in an art. The student must contact the mentor on a monthly basis, meet quarterly with the mentor to address progress on individual goals (including a course project), and participate in an experience of their chosen "art" at least once each quarter. Experiences may occur individually or in a group setting as determined by the mentor and student. These may include attending art exhibits, live performances, readings by authors, and field trips with mentors. The elective will culminate with a final session in which students will present the product of their wellness experiences to one another and their mentors. Examples of tracks: Therapy and Patient Health (music, art, expressive); Music and Physicians (attend, learn, appreciate, reflect, compose); Physician as Author (reading or writing poetry, screenplays, narratives); Physician as Painter; Physician as Photographer. By the end of the elective the student should be able to describe at least two way in which the arts promote physician wellness; explain protective personal factors that may prevent burnout, identify individual risk factors for burnout and the clinical signs of burnout; and demonstrate and cultivate specific practices to promote personal wellness and protect against future burnout.

Note: Method of Evaluation is 70% demonstration of wellness practices, 10% participation in didactic sessions and final project presentation, 20% mentor evaluation of student initiative and effort.

Note: Requirements for Honoring the course are 1) achievement of "excellence" in achieving personal goals and 2) participating in required and offered activities determined by mentor and course director.