

CURRICULUM

Registration for courses offered in the School of Medicine is limited to medical and graduate students enrolled in School of Medicine programs or visiting students from other LCME accredited medical schools who have applied through the Office of Admissions and Enrollment Services to take fourth year electives.

Guiding Principles

The medical education program in the School of Medicine is conducted in accordance with a set of guiding principles. These principles, as follows, are based upon a commitment to meeting societal expectations regarding the attributes of practicing physicians and can be used as a screen for periodic review and renewal of the medical education program. The educational program in the School of Medicine should:

1. be centrally coordinated by the Curriculum Committee;
2. foster interdisciplinary and interdepartmental collaboration;
3. promote curricular flexibility;
4. respond to changing societal needs and conditions;
5. recognize students' individual talents, interests, and needs;
6. foster students' abilities to be independent and lifelong learners;
7. promote a highly professional and mutually respectful learning environment;
8. prepare students for the ethical challenges of medical practice;
9. recognize the educational importance of diversity within the student population and the faculty.

Our Vision:

The "Ideal" Graduate of the School of Medicine Columbia

Our learners will be competent and caring professionals who are:

- Lifelong learners
- Technologically facile
- Innovative, forward thinking, pioneers
- Open-minded, adaptable communicators
- Collaborative
- Community minded (locally and globally)

So that our graduates will be sought after for their excellence.

Program Objectives

A set of coherent and comprehensive objectives has been established for the medical education program in the School of Medicine. The educational program in the School of Medicine shall:

1. ensure the integration of foundational and clinical sciences; promote students' mastery of scientific and clinical knowledge;
2. provide an understanding of the biopsychosocial model of health and health care;
3. ensure the modeling of high value care that is cost-effective and evidence-based;
4. encourage students' personal and professional development through regular feedback and formative and summative assessments;
5. foster team-building and interprofessional practice models through students' self and peer engagement and evaluation to nurture students' collaboration with other health care team members;

6. foster students' acquisition of necessary clinical, communication, and problem-solving skills;
7. utilize best evidence regarding education to foster learning and retention;
8. provide a variety of experiences in clinical settings with diverse patient populations and healthy clinical learning environments; set appropriate and realistic performance standards for students;
9. utilize both formative and summative evaluation methods for students;
10. increase the use of competency-based student assessments;
11. promote students' interest in translational research and scientific exploration;
12. provide a range of elective opportunities for students;
13. educate generalist physicians who are potentially eligible for practice in South Carolina;
14. prepare altruistic, knowledgeable, skillful, and dutiful physicians;

So that we graduate physicians who are life-long learners who attend equally well to all aspects of health care.

Program Learning Outcomes

1. Diversity, Equity and Inclusion: Demonstrate awareness and commitment to ensuring equitable access to high-quality care for patients, fostering a diverse and inclusive workplace for colleagues, and cultivating and sustaining relationships with suppliers and community partners to enhance a physician's understanding of the communities they serve.
2. Interpersonal and Communication Skills: Demonstrate verbal and nonverbal communication skills that promote effective exchange of information and collaboration with patients, their families, and other healthcare professionals.
3. Medical Knowledge: Master a foundation of scientific and clinical knowledge and apply that knowledge to clinical practice.
4. Patient Care: Provide patient care that is compassionate, appropriate, and effective for the promotion of health and the treatment of health problems.
5. Practice-Based Learning and Improvement: Investigate and evaluate the care of patients, appraise, and assimilate scientific evidence, and continuously improve patient care based on constant self-evaluation and life-long learning.
6. Professionalism: Demonstrate a commitment to carrying out professional responsibilities and an adherence to ethical principles.
7. Systems Based Practice: Demonstrate an awareness of and responsiveness to the larger context and system of health care, as well as the ability to call effectively on other resources in the system to provide optimal health care.

Physician Competencies

1. Patient Care: ability to provide patient care that is compassionate, appropriate, and effective for the treatment of health problems and the promotion of health;
2. Medical Knowledge: demonstrate knowledge of established and evolving biomedical, clinical, epidemiological, and social-behavioral sciences, as well as the application of this knowledge to the patient;
3. Practice Based Learning and Improvement: investigate and evaluate the care of patients, appraise and assimilate scientific evidence, and to continuously improve patient care based on constant self evaluation and life-long learning;

4. Systems Based Practice: demonstrate an awareness of and responsiveness to the larger context and system of health care, as well as the ability to call effectively on other resources in the system to provide optimal health care;
5. Professionalism: demonstrate a commitment to carry out professional responsibilities and an adherence to ethical principles;
6. Interpersonal Skills and Communication: possess skills that are effective in the exchange of information and collaboration with patients, their families, and health professionals.

Educational Objectives and Competencies for Graduates

1. As a member of an interprofessional health care team (EPAs 9, 12), strive to consistently provide appropriate care for patients and populations by applying best evidence as related to the following:
 - normal structure and function of the body as an intact organism and each of its major organ systems; Medical Knowledge, Patient Care
 - molecular, biochemical, and cellular mechanisms that are important in maintaining the body's homeostasis; Medical Knowledge, Patient Care
 - various causes of disease (genetic, developmental, metabolic, toxic, microbiologic, autoimmune, neoplastic, degenerative, traumatic, and psychosocial) and of the ways in which they affect the body (pathogenesis); Medical Knowledge, Patient Care
 - altered structure and function (pathology and pathophysiology) of the body and its major organ systems seen in various diseases and conditions; Medical Knowledge
 - frequent clinical laboratory, roentgenologic, and pathologic manifestations of common maladies; Medical Knowledge, Patient Care
 - important non-biological determinants of health and the economic, psychological, social, and cultural factors including violence and abuse that contribute to the development and/or continuation of maladies; Medical Knowledge, Patient Care, Systems Based Care
 - epidemiology of common health conditions within defined populations and systematic approaches to reduce their incidence and prevalence; Medical Knowledge, Patient Care, Systems Based Care
 - pain assessment and amelioration including the use of medication and alternative or adjunctive therapies; Medical Knowledge, Patient Care
 - various approaches to, and implications of, the organization, financing, and delivery of health care; Patient Care, Professionalism
 - Exercise, nutrition and lifestyle in maintaining health and well-being.
 - Gender, ethnic and age-specific issues that affect disease across the lifespan with particular emphasis on pregnant, newborn, child and geriatric patients; Medical Knowledge, Patient Care
 - Principles of preventive medicine.
 - Principles of patient safety, quality improvement and health care professional safety; Professionalism, Patient Care, Practice Based Learning and Improvement
 - clinical and translational research findings with attention to emerging therapies
2. Retrieve, manage, and utilize information – to include critical review of medical literature when needed – to solve problems, consider differential diagnostic possibilities and make care decisions. (EPAs 2 & 7);
3. Use critical judgment based on evidence and experience in solving clinical problems.
4. Demonstrate the personal and emotional characteristics necessary to become a competent physician including: (professional identity formation)
 - Honesty, integrity and respect in interactions with patients, families, coworkers and colleagues
 - Accountability for own actions
 - Appropriate awareness and concern for the needs of patients and families
 - Sensitivity and respect for patients from diverse gender, cultural, economic, educational, and family backgrounds
 - Ethical obligations inherent in the role of physician
 - Advocacy for patient and population needs for health and well-being
 - Identifying ethical dilemmas and applying ethical decision-making when faced with both common and uncommon issues faced in medical practice
 - Identifying threats to medical professionalism posed by the conflicts of interest inherent in various financial and organizational arrangements for medical practice.
 - Recognition and acceptance of limitations in his/her own knowledge and clinical skills and commitment to improve his/her knowledge and ability toward best practices in care through self-assessment and lifelong learning
5. Obtain an accurate and complete medical history with special attention to relevant health issues related to age, gender, sexual orientation, and factors such as socio-economic status for patient health and document appropriately. (EPAs 1 & 5)
6. Be technologically proficient in the acquisition and documentation of that information for provision of high value healthcare. (EPA 1)
7. Perform both complete and problem focused physical examinations including mental status examination and fully document that information as part of a medical record. (EPA 1)
8. Perform basic technical procedures. Examples include: venipuncture, inserting an intravenous catheter, arterial puncture, lumbar puncture, inserting a nasogastric tube, inserting a Foley catheter, and suturing lacerations. (EPA 12)
9. Adhering to patient confidentiality and autonomy, effectively communicate - both orally and in writing - with patients and families, colleagues and others with whom information must be exchanged when carrying out duties of patient care. Examples include:
 - Discussing orders (EPA 4)
 - Providing an oral presentation of a patient encounter (EPA6)
 - Giving and receiving a patient handover to transition care responsibly (EPA 8)
 - Obtaining informed consent (EPA 11)
10. Identify factors placing individuals at risk for disease or injury, select appropriate tests for detecting patients at risk for specific diseases or in the early stages of diseases, and determine appropriate response strategies.
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12. Apply appropriate management strategies - both diagnostic and therapeutic - for patients with common acute and chronic medical, psychiatric, surgical conditions and conditions requiring short-and long-term rehabilitation therapy.

13. Recognize when a patient requires urgent or emergent care due to immediate life threatening conditions – whether cardiac, pulmonary, neurologic or other cause – and initiate evaluation and critical management. (EPA 10)

14. Adhere to state and federal regulations regarding reporting of domestic violence, child abuse, criminal activity, fraud, and the Health Insurance Portability (HIPAA).

15. Contribute to a culture of safety and improvement through applying skills in teaming and leadership and in the identification and reporting of system failures or errors. (EPA 13)

Curriculum (160 Credit Hours)

The School of Medicine is dedicated to the goals of preparing students in the art and science of medicine and providing students with a background for further postgraduate training in a variety of fields of medicine. The curriculum is designed to promote professional growth and a compassionate response to patients' needs, to assist students in understanding the complexity of patient care, and to provide students with a perspective on the role of medicine in society.

The four-year curriculum consists of basic science courses and clerkships in applied clinical medicine. All students are required to complete a specific set of courses during the four years, except as noted under "Course Exemptions." Elective opportunities are presented during the third and fourth years to assist students in pursuing their individual interests and career goals.

Basic Sciences (Years 1 and 2)

During the first two years of medical school, students study a core curriculum of those basic sciences and clinical disciplines necessary for an understanding of the structure and function of human systems. During the first year, students gain a basic understanding of normal structure and function. During the second year, emphasis is placed on microbiology, pathology, and general therapeutic principles as they function within the organ system. Throughout the first two years, research, case studies, and clinical correlations to basic science material are integral components of the curriculum, as is the four-semester Introduction to Clinical Medicine course continuum. Interdisciplinary material on such subjects as health system science, nutrition, substance abuse, ethics and professionalism, ultrasonography, and patient safety and quality is also presented. The main goal of the Introduction to Clinical Medicine course continuum and clinical correlations is to provide students with clinical background and skills in preparation for clinical clerkships in the third and fourth years. All Introduction to Clinical Medicine courses are based upon a comprehensive knowledge of basic science material.

The School of Medicine will be in a curriculum transition for the 2021-2022 academic year. There may be some variation in course credit for the first two years. Hours required for graduation will be updated based on any changes in the course credit hours.

Clinical Clerkships (Years 3 and 4)

Clerkship experiences in the third year of medical school include rotations of twelve weeks each in internal medicine/neurology, eight weeks each in surgery and pediatrics, six weeks each in family medicine, psychiatry, and obstetrics/gynecology, and two one-week elective opportunities. Fourth-year students are required to participate in eight four-week rotations, including an acting internship and a critical care rotation, and in Capstone, a one-week program of interdepartmental and interdisciplinary material designed to prepare students for the transition to residency training. The learning experience is enhanced by direct contact with patients in which students actively participate in the clinical setting. Emphasis is placed on the correlation of basic science material and clinical material. This correlation is further promoted by means of tutorial seminars, lectures, and small group discussions.

Electives

Elective opportunities for third and fourth-year students are listed by department in the OASIS scheduling system. Electives are available at the discretion of the department chair. National and international elective programs are also available and encouraged. For more information on third and fourth-year electives, contact the School of Medicine director of enrollment services/registrar.

First Year

Fall		Credit Hours
MCBA D603	Foundational Medical Anatomy	12
DMED D601	Introduction to Clinical Medicine I	3
DMED D680	Application of Clinical Evidence I (ACE)	1
Credit Hours		16
Spring		
PHPH D621	Medical Physiology	7
BMSC D604	Molecular Foundations of Medicine	8
DMED D602	Introduction to Clinical Medicine I	4
DMED D680	Application of Clinical Evidence I (ACE)	1
Credit Hours		20

Second Year

Fall		
DMED D603	Introduction to Clinical Medicine II	2
DMED D683	General Principles	5
DMED D685	Cardiovascular	4
DMED D686	Renal	2
DMED D687	Pulmonary	2
DMED D688	Hematology	3
DMED D689	Musculoskeletal (MSK) System	2
DMED D681	Application of Clinical Evidence II (ACE)	1
Credit Hours		21
Spring		
DMED D604	Introduction to Clinical Medicine II	2
DMED D681	Application of Clinical Evidence II (ACE)	1
DMED D694	Gastrointestinal (GI)	3
DMED D695	Endocrine/Reproduction	4
DMED D696	Neuroscience	6
DMED D697	Integrated Disease	2
Credit Hours		18

Third Year

FPMD D605	Family Medicine Clerkship	6
MEDI D611	Medicine/Neurology	12
OBGY D605	Obstetrics/Gynecology Clerkship	6
PEDI D605	Pediatrics Clerkship	8
NPSY 605	Psychiatry Clerkship	6
SURG D605	Surgery Clerkship	8
Electives (2)		2
DMED D643	Intersession Week	1
Credit Hours		49

Fourth Year

DMED D647	USMLE Step 2 Preparation	4
DMED D607	Capstone	4
Acting Internship		4
Critical Care		4
Transforming Health Care		1
Electives		16
Credit Hours		33
Total Credit Hours		157

Clinical Skills Attainment Document

Medical students must demonstrate mastery of all required clinical skills enumerated in the Clinical Skills Attainment Document (CSAD) prior to graduation from the School of Medicine. Demonstration of mastery of some of these clinical skills is required for a passing grade in the second-year Introduction to Clinical Medicine course (see "Interdisciplinary Courses" section), while demonstration of mastery of other clerkship-specific clinical skills is required for successful completion of each third-year clinical clerkship (see "Clinical Sciences" section). In addition, students must demonstrate mastery of required non-departmental clinical skills during the third and fourth years of medical education.

Guidelines for Conduct in Teacher/Learner Relationships

1. Statement of Philosophy

The University of South Carolina School of Medicine is committed to fostering an environment that promotes academic and professional success in learners and teachers at all levels. The achievement of such success is dependent on an environment free of behaviors which can undermine the important mission of our institution. An atmosphere of mutual respect, collegiality, fairness, and trust is essential. Although both teachers and learners bear significant responsibility in creating and maintaining this atmosphere, teachers also bear particular responsibility with respect to their evaluative roles relative to student work and with respect to modeling appropriate professional behaviors. Teachers must be ever mindful of this responsibility in their interactions with their colleagues, their patients, and those whose education has been entrusted to them.

2. Responsibilities in the Teacher/Learner Relationship

a. Responsibilities of Teachers

- i. Treat all learners with respect and fairness;
- ii. Treat all learners equally regardless of age, gender, race, ethnicity, national origin, religion, disability, or sexual orientation;
- iii. Provide current material in an effective format for learning;

- iv. Be on time for didactic, investigational, and clinical encounters;
 - v. Provide timely feedback with constructive suggestions and opportunities for improvement/remediation when needed.
- b. Responsibilities for learners
- i. Treat all fellow learners and teachers with respect and fairness;
 - ii. Treat all fellow learners and teachers equally regardless of age, gender, race, ethnicity, national origin, religion, disability, or sexual orientation;
 - iii. Commit the time and energy to your studies necessary to achieve the goals and objectives of each course;
 - iv. Be on time for didactic, investigational, and clinical encounters;
 - v. Communicate concerns/suggestions about the curriculum, didactic methods, teachers, or the learning environment in a respectful, professional manner.

3. Behaviors Inappropriate to the Teacher-Learner Relationship

These behaviors are those which demonstrate disrespect for others or lack of professionalism in interpersonal conduct. Although there is inevitably a subjective element in the witnessing or experiencing of such behaviors, certain actions are clearly inappropriate and will not be tolerated by the institution. These include, but are not limited to, the following:

- Unwanted physical contact (e.g. hitting, slapping, kicking, pushing) or the threat of the same;
- sexual harassment (including romantic relationships between teachers and learners in which the teacher has authority over the learner's academic progress) or harassment based on age, gender, race, ethnicity, national origin, religion, disability, or sexual orientation;
- loss of personal civility including shouting, personal attacks or insults, displays of temper (such as throwing objects), use of culturally insensitive language;
- discrimination of any form including in teaching and assessment based upon age, gender, race, ethnicity, national origin, religion, disability, or sexual orientation;
- requests for another to perform inappropriate personal errands unrelated to the didactic, investigational, or clinical situation at hand;
- grading/evaluation on factors unrelated to performance, effort, or level of achievement.

4. Avenues for Addressing Inappropriate Behavior in the Teacher/Learner Context

a. Learners' Concerns

Learners may address situations in which they feel that they have been the object of inappropriate behavior at various levels. At the most basic level, the most effective way to handle a situation may be to address it immediately and non-confrontationally. Oftentimes, a person is simply unaware that his/her behavior has offended someone, or even if aware, will correct the behavior appropriately if given the opportunity to do so in a way that is not threatening. The way to raise such an issue is to describe the behavior factually ("When you said..."), describe how the behavior made you feel ("I felt..."), and state that the behavior needs to stop or not be repeated ("Please, don't do that again.").

Sometimes, such a request is not successful, or the person repeats the behavior, or the learner does not feel comfortable speaking directly to the teach about his/her behavior. In those

cases, it may be helpful to discuss the behavior with course/ clerkship directors, laboratory mentors, program directors, or department chairs. Students may also elect to speak to any one of the assistant deans or the assistant dean for minority affairs, the director of student services, or one of the School of Medicine's three ombudspersons for informal advice and counsel about these issues. These individuals may offer additional suggestions for resolving the matter informally, such as, for example, speaking to the individual on the learner's behalf or on behalf of an entire class, raising the general issue in a faculty meeting, assisting the learner with writing to the individual teacher or even direct intervention to get the behavior to stop.

If no satisfactory resolution is reached after these discussions or the learner does not feel comfortable speaking to these individuals, he/she may bring the matter formally to the attention of the School of Medicine administration. The avenues for this more formal reporting vary depending upon the status of the reporting individual. In either case the learner always has the option of submitting a formal complaint to the University's Student Grievance Committee through the procedure outlined in the Carolina Community.

- i. If the person reporting the behavior is a medical student:
The student should speak with the director of student services, the associate dean for medical education and academic affairs, or one of the school's ombudspersons.
- ii. If the person reporting the behavior is a graduate student or MD/PhD student pursuing their graduate studies:
The student should speak with the director of student services or the director of graduate studies program.

b. Teachers' Concerns

If a teacher feels that a learner has engaged in inappropriate behavior, it is likewise most effective to address the situation immediately and non-confrontationally. If the matter is not resolved satisfactorily, the teacher should contact the course/ clerkship director, program director, or laboratory mentor to discuss the matter. If the teacher wishes to make a formal allegation of misconduct, they should contact the following members of the administration:

- i. If the matter involves a medical student, contact one of the assistant or associate deans in the Office of Medical Education and Academic Affairs.
- ii. If the matter involves a graduate student, contact the director of the graduate studies program.

These allegations will be handled on an individual basis by the appropriate School of Medicine official in consultation with the dean and where applicable according to established School of Medicine and University policies.

5. Procedures for Handling Allegations of Inappropriate Behavior in the Teacher/Learner Context

- a. Upon being notified of alleged inappropriate behavior, the associate/assistant dean or program director will notify the dean and other appropriate senior administration officials in a written report within five business days of the allegation.

If the complaint is lodged against a faculty member, other than those matters referred to the Office of Equal Opportunity Programs, the matter will be handled by the dean in consultation with the appropriate associate dean and department chair and, where established, the appropriate School of Medicine and

University policies. The dean may also choose to appoint an ad hoc committee to investigate the complaint.

- b. If the behavior involves unlawful discrimination or sexual or other forms of unlawful harassment, the matter will be referred to the Office of Equal Opportunity Programs and be handled through University policies established for that office. The student may also directly contact that office.
- c. If the behavior involves unwanted physical contact or other forms of violent or threatening acts, the matter may be referred to the University's campus police or appropriate security.
- d. The School of Medicine is committed to the fair treatment of all individuals involved in this process. All efforts will be made to maintain the confidentiality of the resolution process to the extent possible and subject to the overriding concern of a prompt fair investigation and/or resolution of the complaint.
- e. The School of Medicine will not tolerate any form of retaliatory behavior toward learners who make allegations in good faith. Individuals who believe that action has been taken against them in retaliation for raising concerns under this policy, may address those concerns through the procedures described in this policy or through the Student Grievance Committee.
- f. Records of all communications as well as written reports of the associate/assistant deans, program directors, and any ad hoc committee (if formed) will be kept in the dean's office.
- g. If it is determined that the allegations from the complainant were not made in good faith, the student will be referred for disciplinary action to the Student Academic Responsibility Committee.