

## Lewis Katz School of Medicine

### Academic Program Student Learning Outcomes

Program Description	Program Degree	Student Learning Outcomes
<b>BIOMEDICAL SCIENCES</b>	<b>PHD</b>	Ability to critique the scientific literature Interpretation of experimental data
		Oral presentations in classroom Oral presentation to thesis advisory committee Preparation of Abstract (biannual) Completion of thesis Oral defense of thesis research Preparation and submission of scientific manuscripts(s).
		Generate a hypothesis Plan and complete an original research project
<b>BIOMEDICAL SCIENCES (non-thesis)</b>	<b>MS</b>	Understand the strengths and weakness of published data.
		To be able to clearly and effectively communicate
		Appreciate the scientific method from both classroom and experimental perspectives.
<b>BIOMEDICAL SCIENCES (thesis)</b>	<b>MS</b>	Students participate in journal clubs whereby published papers are discussed and critiqued Students orally present research articles in a number of the courses in the curriculum. Students prepare a seminar on a subject independent of their research, selecting data to support their subject.
		Students present a seminar once in the fall semester. Students enroll in Scientific Communication (BMSC 8202) gaining experience and feedback in written and oral communication Students present papers in several of the courses in their specific track. Students present a laboratory research review in the spring (2nd) and fall (3rd) semesters to their thesis advisory committee. Students defend their thesis research project in the 4th or 5th semester.
		Students develop a hypothesis for their thesis research. Students develop an understanding of the literature. Students plan and execute experiments to test the hypothesis. Students form conclusions and propose future experiments to be conducted. Students place their findings within the context of the body of literature and understanding.
<b>MEDICINE</b>	<b>MD</b>	Students must demonstrate knowledge of the normal anatomical structure and function (physiological and psychological) of the human body as a whole and of each of its major organ systems, throughout the life cycle, to include developmental (infancy and adolescence) and aging processes.
		Students must demonstrate the ability to obtain both a focused and comprehensive medical history and perform an appropriately focused and thorough physical and mental status examination in a respectful manner.
		Students must demonstrate the ability to interact and communicate respectfully, effectively and empathetically with patients, their families, all health care professionals, and the public across all ages, gender, socioeconomic and cultural backgrounds and to address issues in a sensitive, compassionate, and non-judgmental manner.

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<b>MEDICINE (CONT'D)</b>	<b>MD (CONT'D)</b>	<p>Students must demonstrate the ability to understand and commit to ethical and legal principles in all aspects of patient care, including beneficence, justice, confidentiality, privacy, informed consent, and patient autonomy.</p> <p>Students must demonstrate the ability to understand the appropriate roles of technology and information management in both education and patient care.</p> <p>Students must demonstrate the knowledge of their own role, as well as the roles of other healthcare professionals in the delivery of patient care and the ways in which they collaborate in the care of both individuals and communities.</p> <p>Students must demonstrate the ability to work collaboratively with other healthcare professionals and maintain a climate of mutual respect, dignity, diversity, ethical integrity, and trust.</p>
<b>MEDICINE COMBINATION</b>	<b>MD/PHD</b>	<p>MD/PhD students meet all of the learning outcomes for the MD and Biomedical Sciences PhD Program. These are managed by each of the two programs. In addition, MD/PhD students are trained specifically in translational research/medicine. There is a focus on understanding how to integrate basic and clinical research into the practice of medicine. Specifically, how to take findings learned in the laboratory and bring them to the bedside in patient care. Students participate in a MD/PhD specific seminar series throughout their time in the program where this is the main topic of discussion. This seminar integrates MD and PhD training with a translational focus using seminar presentations from faculty, advanced students in the program and outside visitors. In addition, students each year prepare in a small group a MD/PhD Grand Rounds presentation mentored by a physician/scientist faculty member focusing on a timely clinical condition and the translational research ongoing in that area..</p>