

# School of Medicine (MEDS)

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Course information contained within the Bulletin is accurate at the time of publication in August 2023 but is subject to change. For the most up-to-date course information, please refer to the Course Catalog.

**MEDS 5003. Fundamentals of Biochem. 4 Credit Hours.**

**Level Registration Restrictions:** Must be enrolled in one of the following Levels: Graduate.

**Repeatability:** This course may not be repeated for additional credits.

**MEDS 5004. Fundamentals of Physiology. 4 Credit Hours.**

Fundamentals of Physiology addresses important topics including membranes and membrane transport, excitation and contraction of skeletal, smooth and cardiac muscle, the heart and blood flow, renal physiology and lung physiology. Important medically related examples will be discussed. Course syllabus will be provided by the course director.

**Level Registration Restrictions:** Must be enrolled in one of the following Levels: Graduate.

**Repeatability:** This course may not be repeated for additional credits.

**MEDS 5006. Microbio and Immunology. 4 Credit Hours.**

**Level Registration Restrictions:** Must be enrolled in one of the following Levels: Graduate.

**Repeatability:** This course may not be repeated for additional credits.

**MEDS 5007. Human Anatomy. 4 Credit Hours.**

Human Anatomy provides instruction in gross anatomy for postbac students. Important medically related examples will be discussed. Course syllabus will be provided by the course director.

**Level Registration Restrictions:** Must be enrolled in one of the following Levels: Graduate.

**Repeatability:** This course may not be repeated for additional credits.

**MEDS 5008. Medical Pharmacology. 4 Credit Hours.**

Medical Pharmacology provides instruction in pharmacology for postbac students. Important medically related examples will be discussed. Course syllabus will be provided by the course director.

**Level Registration Restrictions:** Must be enrolled in one of the following Levels: Graduate.

**Repeatability:** This course may not be repeated for additional credits.

**MEDS 5009. Biochemistry of Life Systems. 2 Credit Hours.**

This course provides students with an understanding of the basic principles of biochemistry related to pre-health competencies tested by the MCAT. Topics related to these competencies include: protein structure and function; enzyme function and regulation; transmission of genetic information, membrane structure and composition, bioenergetics, fuel metabolism and cell signaling. NOTE: This course fulfills a requirement for students enrolled in the Basic Core in Medical Sciences (BCMS) Post Baccalaureate Program.

**Level Registration Restrictions:** Must be enrolled in one of the following Levels: Graduate.

**Repeatability:** This course may not be repeated for additional credits.

**MEDS 5010. Special Topics in Medicine. 3 Credit Hours.**

Special Topics in Medicine discusses important topics in medicine including translational research and evidence based medicine for postbac students. Course syllabus will be provided by the course director.

**Level Registration Restrictions:** Must be enrolled in one of the following Levels: Graduate.

**Repeatability:** This course may be repeated for additional credit.

**MEDS 5011. The Application of Physical Principles to the Understanding and Practice of Medicine. 4 Credit Hours.**

The principles of the physical world are the foundation of many diagnostic and therapeutic modalities used in the practice of medicine as well as essential physiological processes. This course is offered every fall to provide students with an understanding of the principles and applications of physical science to biological systems and medicine. The application of physical science to medicine will be subdivided into three sections: relationship to human organ function, imaging and diagnosis, and therapies. Topics in the first section include heat, electricity, sound and light waves, and fluids. The second section will describe their application to microscopy, MRI, CT, X-ray, PET and ultrasound imaging. The final section includes therapies for treating disease. The course is lecture based and includes problem solving and presentations by practicing physicians. This course fulfills a requirement for students enrolled in the Basic Core in Medical Sciences post-baccalaureate program.

**Level Registration Restrictions:** Must be enrolled in one of the following Levels: Graduate.

**Repeatability:** This course may not be repeated for additional credits.

**MEDS 8004. Macromolecules. 4 Credit Hours.**

**Level Registration Restrictions:** Must be enrolled in one of the following Levels: Graduate.

**Repeatability:** This course may not be repeated for additional credits.

**MEDS 8010. Seminar Clinical Res. 1 Credit Hour.**

**Level Registration Restrictions:** Must be enrolled in one of the following Levels: Graduate.

**Repeatability:** This course may be repeated for additional credit.

**MEDS 8020. Crit Lit Clin Transl Res. 2 Credit Hours.**

**Level Registration Restrictions:** Must be enrolled in one of the following Levels: Graduate.

**Repeatability:** This course may be repeated for additional credit.

**MEDS 8030. Grant Writing: Clin Res. 2 Credit Hours.**

**Level Registration Restrictions:** Must be enrolled in one of the following Levels: Graduate.

**Repeatability:** This course may be repeated for additional credit.

**MEDS 8051. Intro to Biostatistics. 3 Credit Hours.**

**Level Registration Restrictions:** Must be enrolled in one of the following Levels: Graduate.

**Repeatability:** This course may not be repeated for additional credits.

**MEDS 9995. Res Prjct Clin/Trnsl Med. 1 to 6 Credit Hour.**

**Level Registration Restrictions:** Must be enrolled in one of the following Levels: Graduate.

**Repeatability:** This course may be repeated for additional credit.

**MEDS M001. 1st Yr Med School Prog. 12 Credit Hours.**

**Repeatability:** This course may not be repeated for additional credits.

**MEDS M002. 2nd Yr Med School Prog. 12 Credit Hours.**

**Repeatability:** This course may not be repeated for additional credits.

**MEDS M003. 3rd Yr Med School Prog. 12 Credit Hours.**

**Repeatability:** This course may not be repeated for additional credits.

**MEDS M004. 4th Yr Med School Prog. 12 Credit Hours.**

**Repeatability:** This course may not be repeated for additional credits.

**MEDS M010. Transition to Medical School. 0 Credit Hours.**

The Transition to Medical School course serves to bring together first year medical students from diverse educational and career backgrounds and experiences and introduces them to the new and challenging environment of medical school. Sessions cover important curricular areas such as professionalism, teamwork, study habits, communications skills and personal well-being to provide a foundation for success in medical school.

**Repeatability:** This course may be repeated for additional credit.

**MEDS M011. Fundamentals 1: Human Structure. 0 Credit Hours.**

This course covers the fundamentals of clinical anatomy and imaging, principles of embryology, fundamentals of histology and cell physiology.

**Repeatability:** This course may be repeated for additional credit.

**MEDS M012. Fundamentals 2: Cellular Function. 0 Credit Hours.**

Clinical anatomy and imaging, principles of embryology, fundamentals of histology and cell physiology.

**Repeatability:** This course may be repeated for additional credit.

**MEDS M013. Fundamentals 3: Host Defenses and Threats. 0 Credit Hours.**

General principles of immunology, including the interactions of immune system components in normal and disease states. Immunological methods to diagnose and treat diseases. Structure and function of microorganisms both as microbiota and pathogens, and introduction to major microbial pathogens and their diseases. Additional pathogens will be introduced longitudinally in integrated sessions throughout the organ system blocks.

**Repeatability:** This course may be repeated for additional credit.

**MEDS M014. Fundamentals 4: Basis of Disease and Treatment. 0 Credit Hours.**

Fundamentals of pathology and oncology, principles of pharmacology, and the diagnosis and treatment of infectious disease. Case-based introductions to biostatistics and epidemiology.

**Repeatability:** This course may be repeated for additional credit.

**MEDS M015. Systems 1: Neuroscience and Psychiatry. 0 Credit Hours.**

Development, histology, neuroanatomy, and physiology of the autonomic and central nervous systems. Pathology and pathophysiology of nervous system diseases and treatment modalities will be interwoven. Behavioral topics, including psychiatric illnesses and substance use disorders, will be discussed, along with their treatment and societal impact.

**Repeatability:** This course may be repeated for additional credit.

**MEDS M016. Systems 2: Cardiovascular Medicine. 0 Credit Hours.**

Development, histology, and physiology of the cardiovascular system. Pathology and pathophysiology of diseases related to the cardiovascular system, along with the basis for diagnosis and the pharmacologic, medical, surgical, and behavioral treatment options.

**Repeatability:** This course may be repeated for additional credit.

**MEDS M017. Systems 3: Pulmonary Medicine. 0 Credit Hours.**

Development, histology, and physiology of the respiratory system. Pathology and pathophysiology of diseases related to the respiratory system, along with the basis for diagnosis and the pharmacologic, medical, surgical, and behavioral treatment options.

**Repeatability:** This course may be repeated for additional credit.

**MEDS M020. Systems 4: Nephrology. 0 Credit Hours.**

Development, histology, and physiology of the renal system. Pathology and pathophysiology of renal diseases, along with the basis for diagnosis and the pharmacologic, medical, surgical, and behavioral treatment options.

**Repeatability:** This course may be repeated for additional credit.

**MEDS M021. Systems 6: Gastroenterology and Nutrition. 0 Credit Hours.**

Development, histology and physiology of the gastrointestinal system. Pathology and pathophysiology of diseases of the gastrointestinal system, along with the basis for diagnosis and the pharmacological, medical, surgical, and behavioral treatment options. This course also covers metabolism and nutrition and the effect of nutrient deficiencies and excesses on health.

**Repeatability:** This course may be repeated for additional credit.

**MEDS M022. Systems 5: Endocrinology, Obstetrics and Gynecology, and Urology. 0 Credit Hours.**

Development, histology and physiology of the endocrine system and male and female reproductive systems. Pathology and pathophysiology of diseases of the endocrine system, male and female reproductive systems, along with the basis for diagnosis and the pharmacological, medical, surgical, and behavioral treatment options.

**Repeatability:** This course may be repeated for additional credit.

**MEDS M023. Systems 7: Multi-Organ System Disease. 0 Credit Hours.**

Students will learn the development, histology and physiology of the hematologic, musculoskeletal and dermatologic systems. The pathology and pathophysiology of diseases of the hematologic, musculoskeletal (rheumatologic and orthopedic) and dermatologic systems, along with the basis for diagnosis and the pharmacological, medical, surgical, and behavioral treatment options will also be taught. This course will also include integrated multi-organ system clinical cases, incorporating topics from earlier courses that will require critical thinking and clinical problem solving.

**Repeatability:** This course may be repeated for additional credit.

**MEDS M100. Nutrition and Health. 0 Credit Hours.**

**Course Attributes:** M5

**Repeatability:** This course may not be repeated for additional credits.

**MEDS M101. Fundamentals of Anatomy. 0 Credit Hours.**

**Course Attributes:** M1

**Repeatability:** This course may not be repeated for additional credits.

**MEDS M102. Fundamentals of Medicine 1. 0 Credit Hours.**

**Course Attributes:** M1

**Repeatability:** This course may not be repeated for additional credits.

**MEDS M103. Biological Systems I: Cardiovascular, Blood, Respiratory and Renal Systems. 0 Credit Hours.**

**Course Attributes:** M1

**Repeatability:** This course may not be repeated for additional credits.

**MEDS M104. Biological Systems II: Gastrointestinal, Endocrine, Bone and Reproductive Systems. 0 Credit Hours.**

**Course Attributes:** M1

**Repeatability:** This course may not be repeated for additional credits.

**MEDS M105. Biological Systems III: Nervous and Musculoskeletal Systems. 0 Credit Hours.**

**Course Attributes:** M1

**Repeatability:** This course may not be repeated for additional credits.

**MEDS M106. Biological Systems IV: Inflammation, Immune System and Skin. 0 Credit Hours.**

**Course Attributes:** M1

**Repeatability:** This course may not be repeated for additional credits.

**MEDS M107. Doctoring 1. 0 Credit Hours.**

**Course Attributes:** M1

**Repeatability:** This course may not be repeated for additional credits.

**MEDS M110. Clinical Immun Topics. 0 Credit Hours.**

**Course Attributes:** M5

**Repeatability:** This course may not be repeated for additional credits.

**MEDS M111. Clinical Informatics: Electronic Medical Records and Data in Healthcare. 0 Credit Hours.**

This elective will give medical students an introduction to the field of Clinical Informatics from the physician perspective. Managing the IT needs of physicians in the hospital and office has emerged as an increasingly important task in health care delivery. There are increasing opportunities for physicians to play a role in guiding the evolution of the EMR systems and the use of data in healthcare. In this elective, students will shadow the Chief Medical Information Officer for Temple University Hospital, gaining an understanding of how IT and data impact the job of the physician, and how physicians can in turn impact the use of IT to support quality, safety and financial initiatives critical to the success of the organization.

**Repeatability:** This course may be repeated for additional credit.

**MEDS M120. Sexual Health. 0 Credit Hours.**

**Course Attributes:** M5

**Repeatability:** This course may not be repeated for additional credits.

**MEDS M130. Reflections on Gross Anatomy. 0 Credit Hours.**

This elective will address issues raised by the first and one of the most powerful rites of initiation into the medical profession – gross anatomy. Topics will include death, dissection, graveyard humor, and (postmortem) physician-patient relations. Reading will include both fiction (Shakespeare, Tillie Olson, Hemingway, William Carlos Williams) and medical essays (Richard Selzer, Lewis Thomas, Robert Coles, Perri Klass). Students will write then read in class three brief pieces in either fictional or essay form.

**MEDS M139. Medical Sign Language. 0 Credit Hours.****Course Attributes:** M5**Repeatability:** This course may not be repeated for additional credits.**MEDS M141. Intro to Medical Ethics. 0 Credit Hours.****Course Attributes:** M5**Repeatability:** This course may not be repeated for additional credits.**MEDS M143. Medical Humanities. 0 Credit Hours.****Course Attributes:** M5**Repeatability:** This course may not be repeated for additional credits.**MEDS M146. Global Health 1. 0 Credit Hours.**

The TEAC/IHO Global Health elective was created to help students expand their educational knowledge and procedural experience so that they can be better prepared to understand global diseases and make a humanitarian difference. The course is taught by faculty members in the department of Emergency Medicine, who have diverse medical backgrounds and have led medical humanitarian missions in Central and South America, Asia and Africa. Whether the participant plans on future global medical experiences or wants an interactive/comprehensive clinical elective to complement his or her education, the TEAC/IHO Global Health Elective has been a fun and highly rated experience for everyone.

**Course Attributes:** M5**Repeatability:** This course may not be repeated for additional credits.**MEDS M147. Global Health 2. 0 Credit Hours.**

The Temple Emergency Action Corps/Global Health: Part II elective will provide a comprehensive overview of emergency medical care from the site of the incident to the hospital to provide a framework of disaster recognition, response, and preparedness in the Philadelphia Region. Emergency skills will be explained, taught, and opportunities for actual skill performance provided to each student through time in the Simulation Lab as well as the Emergency Department. The students will have an opportunity to participate in EMS ride-alongs, Fighting Chance, and an advanced triage session. This elective is required for advancement in the TEAC leadership.

**Repeatability:** This course may not be repeated for additional credits.**MEDS M149. Basic Medical Spanish. 0 Credit Hours.****Course Attributes:** M5**Repeatability:** This course may not be repeated for additional credits.**MEDS M150. Introductory Elective. 0 Credit Hours.**

This generic first and second year School of Medicine elective serves as an introduction to a special topic, often with an interdisciplinary focus. Topics vary from semester to semester and may include an extension of a content area already covered in the required curriculum, an introduction to a new topic or research issue, or exposure to a clinical discipline. First and second year electives are optional and do not impact graduation requirements. Electives are schedule for seven two-hour sessions each, for a total of fourteen contact hours. Student interest and faculty availability determine topics offered each semester.

**MEDS M170. Advanced Medical Spanish. 0 Credit Hours.****Course Attributes:** M5**Repeatability:** This course may not be repeated for additional credits.**MEDS M171. Big Friends/Kenderton School. 0 Credit Hours.**

A crucial part of the experience of medical students in Temple is community engagement. In fact, students are asked to reflect on what experiences they have encountered through their immersion in the surrounding community. With such a large role in the development of who we are and who we will become as physicians, we hope to be able to bring an elective to campus that highlights this role and creates a greater partnership with the Kenderton community. Similar to us, Kenderton holds electives for their seventh and eighth grade classes. These electives serve a similar purpose to our own - engage students in something that they may not receive in their everyday curriculum. With mentorship opportunities through Big Friends, we hope to be able to provide the students with an elective that will engage them in medicine and science, something they seem to miss out on in their own classes. Not only will this help the Kenderton community, but it will foster a greater relationship with the neighboring school, which is a big part of our community and our mission to serve it.

**Repeatability:** This course may be repeated for additional credit.

**MEDS M189. Intro Disaster Response. 0 Credit Hours.**

**Course Attributes:** M5

**Repeatability:** This course may not be repeated for additional credits.

**MEDS M191. Intro Disaster Response II. 0 Credit Hours.**

**Course Attributes:** M5

**Repeatability:** This course may not be repeated for additional credits.

**MEDS M193. Introduction to Bioethics. 0 Credit Hours.**

In this lecture/discussion-based course, students will be exposed to a range of key themes, concepts and current controversies in medical ethics. Topics to be addressed may include: Social Determinants of health and urban bioethics, Mediation as a clinical dispute resolution mechanism, Cultural humility and community competency, Disability ethics, Ethics at the end-of-life, Three-parent babies and reproductive ethics, Bioethics, policy, and the values of health care reform.

**Repeatability:** This course may be repeated for additional credit.

**MEDS M194. Bioethics at the Movies. 0 Credit Hours.**

This elective uses feature and documentary film as a catalyst for theoretical and practical discussions of a series of bioethics topics. We also will be looking through the films, treating them as a lens through which to historically understand the evolving relationships between medicine, society, and popular culture. Specific topics to be covered may include: genetics and the social consequences of genetic knowledge; professionalism and humanism in medicine; dying in the 21st century; research with vulnerable populations; illness, disability, and autonomy; research ethics; and access to care, health policy, and health disparities.

**Repeatability:** This course may be repeated for additional credit.

**MEDS M195. Physicians as Credible Messengers in Firearm Violence Prevention. 0 Credit Hours.**

This elective examines how physicians can become more credible messengers and advocates for gun violence prevention. Topics to be covered include: firearm injury epidemiology, violence as a public health issue, the role of physicians in gun-policy, clinical bedside skills related to gun safety and injury, among others.

**Repeatability:** This course may not be repeated for additional credits.

**MEDS M200. Community Hosp Svc. 0 Credit Hours.**

**Course Attributes:** M5

**Repeatability:** This course may not be repeated for additional credits.

**MEDS M208. Introduction to Research. 0 Credit Hours.**

Research is a crucial aspect of every physician's career. They must evaluate research to find the best evidence-based ways to treat their patients. And their blend of clinical experience and formal education puts them in the best position to know what patients need and how to achieve it. For these reasons, learning how clinical research is done is a necessity to properly evaluate the literature and hopefully to conduct research in the future. By starting from scratch, creating a research question and culminating in a paper, it will remove the mystique of the research process. Building this foundation for the students will benefit their future patients, make hospitals more efficient, and progress science as a whole. We feel holding the course throughout the year will allow for the required time for students to develop an appropriate time line for their project. The sessions will include: 1. Why research? How to get involved. 2. History, introduction and submission to the IRB (CITI training included). 3. How to formulate a research question (PICO and FINER). 4. Effective literature searching techniques/using a citation manager (EndNote). 5. Rating the literature: level of evidence/open source/"Grey" literature. 6. Study design: types, pitfalls, feasibility. 7. Data sources at St Luke's: Keeping data safe (Redcap). 8. "It is better to have written" introduction to IMRaD, the use of an outline. 9. Methods/Results: a great place to start. 10. Introduction and discussion: constant tweaking. 11. Abstract and meeting/publication basics presentation.

**Repeatability:** This course may be repeated for additional credit.

**MEDS M210. Diseases of Renal/Endo/Repro. 0 Credit Hours.**

**Course Attributes:** M1

**Repeatability:** This course may not be repeated for additional credits.

**MEDS M212. Microbiology/Inf. Dis.. 0 Credit Hours.**

**Course Attributes:** M1

**Repeatability:** This course may not be repeated for additional credits.

**MEDS M214. Diseases of Cardio/Resp. 0 Credit Hours.****Course Attributes:** M1**Repeatability:** This course may not be repeated for additional credits.**MEDS M217. Doctoring 2. 0 Credit Hours.****Course Attributes:** M1**Repeatability:** This course may not be repeated for additional credits.**MEDS M220. Epidemiology Journal Club. 0 Credit Hours.****Course Attributes:** M5**Repeatability:** This course may not be repeated for additional credits.**MEDS M222. Diseases IV: GI/Hem-Onc/MS. 0 Credit Hours.****Course Attributes:** M1**Repeatability:** This course may not be repeated for additional credits.**MEDS M224. Diseases III: CNS. 0 Credit Hours.****Course Attributes:** M1**Repeatability:** This course may not be repeated for additional credits.**MEDS M225. Disability Through the Lens of Self-Reflection. 0 Credit Hours.**

This elective brings voices from the disability community to the world of medicine. A primary goal is to challenge medicine's imperative to 'fix' disability. A medical diagnosis of a disability often becomes a singular observational lens that isolates and limits people with disabilities. However, by listening to stories directly from members of the disability community, we see instead a perspective that views disability as something that is natural, fluid, and dignified. Learning to embrace diversity and disability through the self-representations, this elective helps prepare future doctors to better contribute to individuals' health, well-being, and flourishing. Students will explore several key theoretical, policy, and medical debates in the field of disability. Specific topics include, for example: stigma and stereotypes; pre-natal genetic testing, neuro-diversity, and disability activism; health policy; medical interventionism; non-traditional communication and informed consent; and self-representation in the arts.

**Field of Study Restrictions:** Must be enrolled in one of the following Majors: Medicine.**Degree Restrictions:** Must be enrolled in one of the following Degrees: Doctor of Medicine.**Repeatability:** This course may not be repeated for additional credits.**MEDS M226. Arts Workshop. 0 Credit Hours.**

Arts Workshop will be a hands-on workshop style class in which students will draw with pencil and ink, paint with watercolor and acrylic, and create an art book over the course of the elective. The goal is to provide a hands-on creative outlet, a fresh perspective on perspective, and improve observational skills and nourish creativity. Classes will build each week on previously explored art concepts and will focus in part on translating observational skills into visual representation using plants, birds, landscapes, and the human body.

**Field of Study Restrictions:** Must be enrolled in one of the following Majors: Medicine.**Degree Restrictions:** Must be enrolled in one of the following Degrees: Doctor of Medicine.**Repeatability:** This course may not be repeated for additional credits.**MEDS M227. Fundamentals of Improv Theater. 0 Credit Hours.**

In this elective, students can expect to learn the fundamental skills of improvisation and how it applies to caring for patients. Improvisation is a collaborative art form built on listening, supporting, creativity, intuition, quick response and, well, fun. Students will sharpen their listening skills, their ability to use intuition at the bedside talking with patients, and developing empathy.

**Field of Study Restrictions:** Must be enrolled in one of the following Majors: Medicine.**Degree Restrictions:** Must be enrolled in one of the following Degrees: Doctor of Medicine.**Repeatability:** This course may not be repeated for additional credits.

**MEDS M230. Receptive Music Experiences for Future MDs. 0 Credit Hours.**

This elective course will actively engage students in live and recorded music experiences with the intent of increasing emotional self-awareness and empathy towards others. Through discussion and journaling, students will be encouraged to reflect on these musical experiences, as well as the relationship between personal experiences and the practice of medicine. This class will deepen personal understanding of the relevance of music in self-care practices and for meaningful interpersonal interactions. Students will learn of the physiological and psychological benefits of engaging with music for self-care and engage in relaxation experiences as well as determine preferred music for personal relaxation. They will explore ways that receptive music experiences support self-awareness and self-expression.

**Repeatability:** This course may be repeated for additional credit.

**MEDS M233. Bridging Gap Clerkship. 0 Credit Hours.**

**Course Attributes:** M5

**Repeatability:** This course may not be repeated for additional credits.

**MEDS M234. Yoga and Writing. 0 Credit Hours.**

In this Yoga and Writing course we will place our bodies on the yoga mats - and we will place our words with grace on the page. You will let go, tell your necessary stories, sweat, breathe and laugh through this non-dualistic approach to writing and yoga. In this 7-week course, you will learn about the history of yoga as a spiritual and physical discipline as we devote each week to both yoga exercises and writing exercises. You will move through writer's block by using yoga exercises designed to free up mental and physical space. You will tell necessary stories from the heart/mind and have the opportunity to work with these spontaneous writings in class. We will study and experience - through our mind/body - how Yoga's holistic approach to health can complement the Western medical practice.

**Repeatability:** This course may be repeated for additional credit.

**MEDS M235. History of Medicine. 0 Credit Hours.**

Certain events in the history of medicine have had a major impact on the practice of medicine today. We propose to teach a course that in no way attempts to be a survey of medical history but one in which selected vignettes that have had a major impact will be featured. The course will be taught in an interactive format based on readings selected by the course instructors. Biographies of seminal individuals in the history of medicine in addition to major discoveries and events will be the focus. Ideally participants will select an event or individual and prepare either a talk or paper to conclude the course. Examples of potential topics include: The discovery of the structure of DNA, the Coconut Grove Fire of 1942, Pasteur's discoveries, individuals who contributed to advances in transplantation (specifically Thomas Starzl), self-experimentation, and the discovery of ABO blood groups.

**Repeatability:** This course may not be repeated for additional credits.

**MEDS M236. Specialized Anatomy Review. 0 Credit Hours.**

The course is designed to provide second-year medical students with an advanced knowledge and appreciation of the structure and clinical function of the human body with particular emphasis on a specialized region of their choice. This course involves small group laboratory, case-based clinical anatomy review, and radiology/medical imaging review sessions. Learners will also have the opportunity to serve as Teaching Assistants in the cadaver lab and support first-year medical students in the Fundamentals 1 course.

**Repeatability:** This course may be repeated for additional credit.

**MEDS M240. An Exploration of Narrative Medicine. 0 Credit Hours.**

Storytelling is an indispensable part of medicine, too often overlooked. But the pendulum is swinging back! In this class, we will celebrate the joy of telling stories, and the good that can come of it. We will talk about ways to make sure the human experience stays front and center as students move forward in their path to becoming doctors. We will talk about how to listen, how to earn trust, how to use stories as an effective way to communicate with patients. We will read and discuss examples of great medical storytelling by physician writers and journalists, and look at how this has enriched the lives of patient, physician, and the public. Students will also visit patients in the hospital, and write two short pieces of their own in any style they please. Reflection in any form is a great way to process the intensity of experiences in medical school and as a physician. By the end of the seven weeks, students will have improved their storytelling skills and gained appreciation for the importance of stories in medicine. They will have gained experience interviewing and eliciting patient stories, and they will have muted or at least diminished any fear of writing.

**MEDS M241. An Exploration of Meaning through Stories, Poems, and Plays. 0 Credit Hours.**

Medical school is sometimes a rollercoaster through thickets of facts, emotion, and doubt. As in other parts of life, meaning and purpose can get lost. In a spirit of playful inquiry, the class will read, discuss, and write about various approaches to create meaning, including work by Italo Calvino, Mary Oliver, J.K. Rowling, Billy Collins, Martin Buber, and Maurice Sendak. With apologies to Monty Python, the class will address fundamental questions. How do we preserve meaning in the face of sorrow or tragedy, and in the daily grind? How might religion, humor, and art nurture a sense of self and meaning? What is the role of intimacy and compassion? And when might ambiguity support meaning? Students will meet as a group for seven, two-hour Friday afternoon sessions, spread over three months in the fall. Reading assignments will be very short. Every other session, students will bring a brief written response in any genre they choose to share as a prompt for class discussion.



**MEDS M243. Humans of North Philly: Portraits from the Streets. 0 Credit Hours.**

In this class, working with photojournalist Michael Perez, students will descend into the streets around the medical school, seeking out residents to interview and photograph. Students will follow their hearts and instincts, looking for people who they believe will make a great portrait and have an interesting story to tell. The students will approach their subjects with sensitivity and respect, ask for permission to take photographs, and then interview the subject of the photo. As part of the class, students will write a little story to accompany their photos, the best of which will hang in a gallery show in the MERB. By the end of the elective, students will have learned how to approach strangers and initiate conversations, to appreciate the stories of the residents of this community who so often are the patients at Temple Hospital, and to see the world literally and figuratively through a new lens. Students will develop a sensitivity and communication skills that will help them as clinicians. They will also learn technical skills on how to use a camera.

**MEDS M244. Narrative and Relationship-Centered Care. 0 Credit Hours.**

This elective will introduce medical students to narrative approaches to clinical practice and the influence of stories in patient-centered care. By listening, writing, and attending to patient stories, students will strengthen their written and oral intake skills along with developing a deeper understanding and awareness of individual patient experiences, the influence of a patient's cultural background in her/his healthcare, the importance of building patient-physician relationships, and the power of empathy. Students will learn the complexities of narrative texts by participating in close readings and conducting critical analyses of patient stories before collecting and/or writing their own narratives.

**Repeatability:** This course may be repeated for additional credit.

**MEDS M245. HIV Prevention Corps. 0 Credit Hours.**

**Course Attributes:** M5

**Repeatability:** This course may not be repeated for additional credits.

**MEDS M248. Business of Medicine. 0 Credit Hours.**

**Course Attributes:** M2

**MEDS M250. Research and Grantsmanship for Medical Students. 0 Credit Hours.**

This course targets first and second year medical students who wish to learn how to identify, prepare a proposal and submit successful applications. The course will cover NIH, NSF and foundation granting agencies. This learning opportunity provides medical students the skill set for grant writing if they wish to become successful clinician scientists. Curriculum will include a series of interactive skills development presentations by basic science and clinical faculty at LKSOM who have successful research portfolios at Temple University. Students will have the opportunity to select a mentor, identify a funding opportunity and construct a proposal for submission.

**Repeatability:** This course may be repeated for additional credit.

**MEDS M260. My Daughter's Kitchen comes to Medical School. 0 Credit Hours.**

Once a week, for seven weeks, Philadelphia Inquirer Food Editor Maureen Fitzgerald, as part of her My Daughter's Kitchen healthy cooking initiative, [www.philly.com/mydaughter](http://www.philly.com/mydaughter), will prepare healthy meals with students in the College of Public Health's kitchen down the street from the MERB. Students will learn how to slice, saute, simmer, roast, bake and in every way prepare a meal for six. And then they will all sit down to a hot meal. Students, with counsel from the instructor, will each come up with one recipe that meets nutritional and affordability requirements. Discussions at mealtime will focus on techniques and strategies to deliver this information – the value, ease and pleasure of cooking your own healthy meals – to patients. For the last class, students will invite a group of patients in need of healthier eating habits and cook a meal for them, sharing what they have learned. These future physicians will literally be able to hand their patients a recipe and say, "This vegetable soup or this turkey sloppy joe is healthy and easy and good for you because I made it myself!" They can even give cooking or preparation tips! Or suggest where in the neighborhood to buy the ingredients! At the end of the class, students will have an option to write a reflection of 250 to 500 words. Ms. Fitzgerald will periodically write and publish reports describing the class for a general audience.

**MEDS M265. Mind-Body Medicine Elective. 0 Credit Hours.**

This elective is a practical introduction to mind-body medicine. We will explore mind-body medicine from two points of views: primarily, as a practical set of techniques and skills to promote students' own well-being, resilience, mindfulness and empathy; and secondarily, as an introduction to practices about which students may choose to learn more and counsel their future patients. Techniques include mindfulness meditation, guided imagery, biofeedback, breathing techniques, and other mind-body approaches that can alleviate stress and foster self-awareness and self-care. Each session will begin with an opening meditation, followed by a short talk on the technique of focus for that session. The majority of the students' time will be spent practicing and then reflecting on that practice through discussion with the group. Students will be exposed to mind-body medicine skills during session time and encouraged to practice them at home.

**Repeatability:** This course may be repeated for additional credit.

**MEDS M270. Artful Thinking. 0 Credit Hours.**

Students will attend small-group sessions held in the galleries of the Pennsylvania Academy of Fine Arts. Over the six weeks, the students will learn about the rich history of painting and medicine in Philadelphia, including discussion of Eakins' The Gross Clinic and the Agnew Clinic. They will be introduced to research showing that observational skills for clinical application are proved to be enhanced by looking at art, and they will participate in a series of exercises to improve their own acuity of vision and diagnosis. They will focus on how doctors can use art with patients and with themselves, including building important sociocultural and therapeutic skills. Students focus on developing emotional intelligence and considering visual art as a modality for interrogating cultural and gender biases that they or their patients may hold. In one class, they will also draw studio models to practice applying their understanding of human anatomy.

**Repeatability:** This course may not be repeated for additional credits.

**MEDS M275. Cannabinoids (Medicinal Marijuana). 0 Credit Hours.**

The recent approval of medicinal cannabinoids and the frequency of patient self-medication make it imperative that physicians are familiar with the scientific background related to cannabinoids and their effect on physiologic and pathophysiologic function. The course will cover the endogenous cannabinoid system and how modifications of this system can influence both therapy and pathology for a number of diseases. It will also examine legal issues related to the use of medicinal and recreational marijuana.

**Repeatability:** This course may be repeated for additional credit.

**MEDS M276. Case Based Topics. 0 Credit Hours.**

**Course Attributes:** M1

**Repeatability:** This course may not be repeated for additional credits.

**MEDS M280. Health Education and Advocacy Resources at Temple (HEARTS). 0 Credit Hours.**

The HEARTS Clinic at Temple/St. Luke's provides education and medical care to uninsured and underinsured patients in the Southside of Bethlehem. Our focus this year is initiation of a Diabetes Prevention Program (DPP) aimed at preventing the development of diabetes in prediabetics and preventing the progression of diabetes in newly diagnosed diabetics. The second year student's role is to be a student leader of the DPP. The DPP consists of one hour of education, which we are basing off of the CDC's prevent type 2 diabetes pre-made educational materials. The student is expected to run a 1-hour education session, followed by participation/leadership of a 1-hour cooking/exercise class.

**Repeatability:** This course may be repeated for additional credit.

**MEDS M295. Cmplmnty/Altern Med III. 0 Credit Hours.**

**Course Attributes:** M5

**Repeatability:** This course may not be repeated for additional credits.

**MEDS M296. Cmplmnty/Altern Med I. 0 Credit Hours.**

**Course Attributes:** M5

**Repeatability:** This course may not be repeated for additional credits.

**MEDS M297. Cmplmnty/Altern Med II. 0 Credit Hours.**

**Course Attributes:** M5

**Repeatability:** This course may not be repeated for additional credits.

**MEDS M298. Independent Study/Research. 0 Credit Hours.**

**Course Attributes:** M5

**Repeatability:** This course may be repeated for additional credit.

**MEDS M299. Pre-Clerkship Biomedical Research Elective. 0 Credit Hours.**

This elective is designed for pre-clerkship students to learn and participate in clinical or translational research. Students will gain knowledge and skills in best practices in research, IRB procedures and research methodologies.

**Repeatability:** This course may be repeated for additional credit.

**MEDS M306. Faculty Mentored Scholarly Experience 2. 0 Credit Hours.**

This is a required course to enable students to initiate or complete a faculty mentored scholarly experience. In the FMSE courses, students will apply a systematic approach to a scholarly project with the support of a faculty mentor.

**Repeatability:** This course may be repeated for additional credit.

**MEDS M307. Clerkship Longitudinal Biomedical Research. 0 Credit Hours.**

This elective is designed for medical students looking for an advanced specialty clinical research experience, to increase understanding of IRB protocols, utilize EPIC data in research methodology.

**Repeatability:** This course may be repeated for additional credit.

**MEDS M311. Intersession: Integrated Topics to Prepare for Surgery. 0 Credit Hours.**

The Intersession: Integrated Topics to Prepare for Surgery is a 3.5-day course immediately preceding the Surgery Clerkship. The goal is to ensure students' readiness to successfully participate in learning on the clerkship and further students' ability to apply learning related to relevant content from the longitudinal health science curriculum. The course will include small group case-based discussions and clinical skills sessions.

**Repeatability:** This course may be repeated for additional credit.

**MEDS M312. Intersession: Integrated Topics to Prepare for Family Medicine and Psychiatry. 0 Credit Hours.**

The Intersession: Integrated Topics to Prepare for Family Medicine and Psychiatry is a 3.5-day course immediately preceding the Family Medicine and Psychiatry clerkships. The goal is to ensure students' readiness to successfully participate in learning on the clerkships and further students' ability to apply learning related to relevant content from the longitudinal health science curriculum. The course will include small group case-based discussions and clinical skills sessions.

**Repeatability:** This course may be repeated for additional credit.

**MEDS M313. Intersession: Integrated Topics to Prepare for Ob-Gyn and Pediatrics. 0 Credit Hours.**

The Intersession: Integrated Topics to Prepare for Ob-Gyn and Pediatrics is a 3.5-day course immediately preceding the Obstetrics & Gynecology and Pediatric clerkships. The goal is to ensure students' readiness to successfully participate in learning on the clerkship and further students' ability to apply learning related to relevant content from the longitudinal health science curriculum. The course will include small group case-based discussions and clinical skills sessions.

**Repeatability:** This course may be repeated for additional credit.

**MEDS M314. Intersession: Integrated Topics to Prepare for Internal Medicine. 0 Credit Hours.**

The Intersession: Integrated Topics to Prepare for Internal Medicine is a 3.5-day course immediately preceding the Internal Medicine Clerkship. The goal is to ensure students' readiness to successfully participate in learning on the clerkship and further students' ability to apply learning related to relevant content from the longitudinal health science curriculum. The course will include small group case-based discussions and clinical skills sessions.

**Repeatability:** This course may be repeated for additional credit.

**MEDS M315. Mid-Year Intersession: Academic Coaching and Career Development. 0 Credit Hours.**

The Mid-Year Intersession: Academic Coaching and Career Development is a 5-day course at the mid-point of Phase 2. The goal is to provide individualized enhancement of knowledge and skills, to develop individualized learning goals for the remainder of Phase 2 and for Phase 3, and to offer the opportunity for career exploration. The course will include small group discussions, skill development sessions, self-directed learning, clinical experiences, meetings with career advisors, and individual coaching sessions.

**Repeatability:** This course may be repeated for additional credit.

**MEDS M316. Intersession: Black (Psychiatry and Neurology). 0 Credit Hours.**

The Intersession: Black is a 3.5-day course immediately preceding the upcoming clerkships. The goal is to ensure students' readiness to participate successfully in learning on the clerkships and further students' ability to apply learning related to relevant content from the longitudinal health science curriculum. The course will include small group case-based discussions and clinical skills sessions.

**Repeatability:** This course may be repeated for additional credit.

**MEDS M317. Intersession: White (Internal Medicine and Pediatrics). 0 Credit Hours.**

The Intersession: White is a 3.5-day course immediately preceding the Internal Medicine and Pediatrics clerkships. The goal is to ensure students' readiness to participate successfully in learning on the clerkships and further students' ability to apply learning related to relevant content from the longitudinal health science curriculum. The course will include small group case-based discussions and clinical skills sessions.

**Repeatability:** This course may be repeated for additional credit.

**MEDS M318. Intersession: Silver (Family Medicine and Faculty Mentored Scholarly Experience). 0 Credit Hours.**

The Intersession: Silver is a 3.5-day course immediately preceding the Family Medicine clerkship and the Faculty Mentored Scholarly Experience course. The goal is to ensure students' readiness to participate successfully in learning on the clerkship and Faculty Mentored Scholarly Experience course and further students' ability to apply learning related to relevant content from the longitudinal health science curriculum. The course will include small group and large group and skills building sessions.

**Repeatability:** This course may be repeated for additional credit.

**MEDS M319. Intersession: Red (Surgery and Obstetrics and Gynecology). 0 Credit Hours.**

The Intersession: Red is a 3.5-day course immediately preceding the Surgery and Obstetrics and Gynecology clerkships. The goal is to ensure students' readiness to participate successfully in learning on the clerkships and further students' ability to apply learning related to relevant content from the longitudinal health science curriculum. The course will include small group case-based discussions and clinical skills sessions.

**Repeatability:** This course may be repeated for additional credit.

**MEDS M337. Transition to Phase 2. 0 Credit Hours.**

Transition to Phase 2 is a 1 week-required course offered at the beginning of the clerkship year (Phase 2). The course contains a review of basic clinical skills and sessions to help prepare students for clinical rotations.

**Repeatability:** This course may be repeated for additional credit.

**Pre-requisites:** Minimum grade of P in MEDS M010, MEDS M011, MEDS M012, MEDS M013, MEDS M014, MEDS M015, MEDS M016, MEDS M017, MEDS M107, MEDS M020, MEDS M021, MEDS M022, MEDS M023, and MEDS M217.

**MEDS M338. Doctoring 3/OSCE. 0 Credit Hours.**

**Course Attributes:** M1

**Repeatability:** This course may not be repeated for additional credits.

**MEDS M339. Introduction to COVID19. 0 Credit Hours.**

This 2-week course will introduce students to the basic medical and public health issues surrounding the COVID19 pandemic. Students will engage in independent learning through reading, online lectures, and modules. They will participate in discussions and complete two assignments. The course will be Pass/Fail and combined with another 2-week elective will fulfill credit for one elective course.

**Repeatability:** This course may be repeated for additional credit.

**MEDS M401. Non-Graded Specialty Experience. 0 Credit Hours.**

This course provides the opportunity for students to engage in a clinical learning experience at another LCME-accredited institution. This opportunity will enable students to broaden their experience through exposure to a different patient population in a novel clinical environment to prepare them for residency.

**Repeatability:** This course may be repeated for additional credit.

**MEDS M411. Community Health. 0 Credit Hours.**

This elective will provide an overview to the medical students of important Community Health and preventive Medicine topics including Access to Care, Healthy Living, Maternal and Child Health Services, HIV Care, Elder Health and Mental Health topics. The student will be able to select a specific community health topic to explore in more depth and complete a project, i.e. nutrition, diabetes prevention, etc. The course will provide additional education about Social Determinants of Health (SDOH), Health Equity and Lifestyle Medicine topics, which are not generally covered in other clerkships/electives.

**Repeatability:** This course may be repeated for additional credit.

**MEDS M425. M4 Literature and Medicine On-line Elective. 0 Credit Hours.**

Students will be divided into groups of 4-6 members who will collectively select three books from a suggested reading list. One or two will be nonfictional, about healthcare practice or the factual or autobiographical experience of being a patient. The remaining one or two books will be fictional, bearing some relation to health or healthcare. After completing each book students will participate in an on-line discussion on Canvas, in which each student poses one question related to the book and all other students in the group respond. Students will compose two 3-4 page papers, one at the outset of the course where they describe their personal background and one at the finish describing a critical incident that shaped their career goals. A faculty preceptor will monitor and help guide group discussions.

**Repeatability:** This course may be repeated for additional credit.

**MEDS M426. Narratives of Alcoholism and Addiction. 0 Credit Hours.**

This course will explore narratives of alcoholism and addiction in writing and in film. By reading, discussing, and reflecting on the individual patient and family narratives, students will strengthen their ability to hear, consider, and interpret the stories of others. Understanding the individual experiences and stories of patients can yield universal lessons for effective health care. While the opiate epidemic is a national problem, Kensington, Philadelphia is home to the largest open-air heroin markets in the country. Temple University Hospital, Episcopal Campus is a particularly dense site of engagement with people who use opioids and students will spend time shadowing in the Emergency Department during the course.

**Repeatability:** This course may be repeated for additional credit.

**MEDS M427. How and Why Doctors Write. 0 Credit Hours.**

We will read and examine a variety of physician writings. Authors will include nationally known doctors, such as Atul Gawande and Oliver Sacks, contributors to newspapers and medical journals, as well as Temple doctors and students. We will discuss the motivations for writing as well as the works themselves. Students are expected to spend out-of-class time reading and writing and by the end of the course each student will have an 850-word essay completed on a topic of their choosing.

**Repeatability:** This course may be repeated for additional credit.

**MEDS M428. Narratives of Grief and Loss. 0 Credit Hours.**

This course will explore narratives of grief and loss. Participants will read, discuss, and reflect on the individual patient and family narratives. Students will strengthen their ability to hear, consider, and interpret the stories of others. The individual experiences and stories of patients will yield universal lessons for effective health care. Participants will be able to use learning from the course in future patient care interactions.

**Repeatability:** This course may be repeated for additional credit.

**MEDS M429. Non-fiction Writing. 0 Credit Hours.**

This course is designed for the student who would like to write. Through a series of exercises, we will generate ideas for reflective and opinion writing. If there is student interest, other non-fiction genres may be explored. We will evaluate effective pieces of writing and work to create our own. Students are expected to spend out-of-class time reading and writing and by the end of the course each student will have an 850-word essay completed on a topic of their choosing.

**Repeatability:** This course may be repeated for additional credit.

**MEDS M444. Community Health. 0 Credit Hours.**

This elective will provide an overview to the medical students of important Community Health and preventive medicine topics including Access to Care, Healthy Living Maternal and Child Health Services, HIV Care, Elder Health and Mental Health topics. The student will be able to select a specific community health topic to explore in more depth and complete a project, i.e. nutrition, diabetes prevention, etc. The course will provide additional education about Social Determinants of Health (SDOH), Health Equity and Lifestyle Medicine topics, which are not generally covered in other clerkships/electives.

**Repeatability:** This course may be repeated for additional credit.

**MEDS M447. Transition to Phase 3 (TTP3). 0 Credit Hours.**

TTP3 is a 1-week required course offered at the beginning of Phase 3. During this course, students learn and practice the advanced clinical skills needed in the Phase 3 courses.

**Repeatability:** This course may not be repeated for additional credits.

**MEDS M494. Doctoring Teaching Elective. 0 Credit Hours.**

This elective will provide an opportunity for 4th year students interested in Academic Medicine to develop and/or revise Doctoring Curriculum, provide peer to peer instruction through teaching of clinical skills, and facilitate small group discussions.

**Repeatability:** This course may be repeated for additional credit.

**Pre-requisites:** Minimum grade of P in MEDS M107 and MEDS M217.

**MEDS M667. Transition to Residency. 0 Credit Hours.**

This is a 1-2 week course near the end of the 4th year. The course includes lectures, small group sessions and simulation experiences. Students will learn and practice important skills needed for internships. They will reflect with classmates on the medical school experience and prepare to transition to the intern year.

**Repeatability:** This course may not be repeated for additional credits.

**MEDS M905. International Med Elective. 0 Credit Hours.**

**Course Attributes:** M2

**Repeatability:** This course may not be repeated for additional credits.

**MEDS M906. Research Elective. 0 Credit Hours.**

**Course Attributes:** M2

**Repeatability:** This course may be repeated for additional credit.

**MEDS M908. Faculty Mentored Scholarly Experience 3a. 0 Credit Hours.**

Students will participate in scholarly work during the 4-week block. This is work to advance an ongoing project. This work is done with mentorship by a faculty member. Students completing this course will be expected to write and submit an abstract. All work will be presented at the FMSE Poster Symposium prior to graduation.

**Repeatability:** This course may be repeated for additional credit.

**Pre-requisites:** Minimum grade of P in MEDS M306.

**MEDS M909. Interprofessional Healthcare Quality Improvement. 0 Credit Hours.**

This interprofessional course will combine medical students with students from nursing and other professions in a healthcare quality experience. The didactic curriculum, based upon the Institute of Healthcare Improvement materials, is presented in longitudinal workshop sessions over a semester. During the following semester, interprofessional student teams identify a clinical quality gap and use the PDSA (Plan-Do-Study-Act) model to assess the gap, design an intervention, and assess the impact of their intervention. Project outcomes will be presented at a scholarly venue(s).

**MEDS M913. Patient Safety/Quality. 0 Credit Hours.**

Patient safety and quality improvement is now, more than ever, becoming recognized as a cornerstone of the practice of medicine. These concepts are fundamental, not only to one's personal development and growth as a physician, but to the future of healthcare. This course is designed for those students who have an interest in patient safety and quality improvement and wish to expand upon their knowledge outside of the standard curriculum. This course will integrate several core competencies that are central to the mission of LKSOM, especially those related to Systems Based Practice and Practice Based Learning and Improvement that focus on quality, improvement of care, and utilization. Furthermore, students in the course will attend several hospital committee meetings and, by doing so, will learn more about both inter-professional collaboration and professionalism.

**Repeatability:** This course may be repeated for additional credit.

**MEDS M920. Faculty Mentored Scholarly Experience 3b. 0 Credit Hours.**

This elective is for students who require an additional block to advance and complete their scholarly work. The expectation for students completing this course will be to write and submit an abstract for presentation.

**Repeatability:** This course may be repeated for additional credit.

**Pre-requisites:** Minimum grade of P in MEDS M908.

**MEDS M990. Health System Administration. 0 Credit Hours.**

**Course Attributes:** M2

**Repeatability:** This course may not be repeated for additional credits.

**MEDS M992. Doctoring 4/Capstone. 0 Credit Hours.**

**Course Attributes:** M2

**Repeatability:** This course may not be repeated for additional credits.

**MEDS M995. Medical Advocacy. 0 Credit Hours.**

**Course Attributes:** M2

**Repeatability:** This course may not be repeated for additional credits.

**MEDS M996. Academic Medicine. 0 Credit Hours.**

**Course Attributes:** M5

**Repeatability:** This course may not be repeated for additional credits.

**MEDS M997. Independent Study. 0 Credit Hours.**

**Course Attributes:** M5

**Repeatability:** This course may not be repeated for additional credits.