Doctor of Medicine

Admissions

Admission Requirements for the Study of Medicine

Entrance requirements for the School of Medicine include the following:

1. Evidence of superior intellectual ability and scholastic achievement;
2. Completion of at least 90 semester units of college courses in an approved college or university;
3. Completion of the Medical College Admission Test of the Association of American Medical Colleges; and
4. Evidence of character and integrity, a caring and compassionate attitude, scientific and humanitarian interests, effective communication skills, and motivation suitable for a career in medicine.

Chemistry, physics and mathematics provide the tools for modern biology, for medicine and for the biological basis of patient care. Thus, a firm grounding in these subjects is essential for the study of medical sciences. Entering students are expected to have accomplished at least the equivalent of one-year courses at the undergraduate level in physics and biology; mathematics through calculus; and chemistry, including one year of general or inorganic chemistry and one year of organic chemistry. Course work in biochemistry is encouraged although not required. In addition, one semester of biochemistry can be substituted for one semester of organic chemistry. Similarly, one semester of statistics can be substituted for one semester of calculus. In selected instances, one or more of these prerequisites may be waived by the Committee on Admissions, but applicants are strongly advised to pursue their interests in these and other areas of science.

A major goal of undergraduate college work should be the development of the intellectual talents of the individual. This often involves the in-depth pursuit of some area of knowledge, whether in the humanities, the social sciences or the natural sciences. At the same time, a diversity of background is encouraged in to provide a necessary foundation for the development of cultural awareness, sensitivity and competence. Specific courses (other than the few in the natural sciences) are not prerequisites, because a great variety of courses and life experiences may prepare students for the many roles they may play in their medical careers.

Technical Standards Statement

Washington University welcomes diverse applicants, including those with physical, sensory, learning, psychological, and chronic disease-related disabilities. The School of Medicine is committed to advocating for its students with disabilities and to educating a medical workforce that mirrors the diversity of the national population. We aim to be leaders in accessibility and inclusion.

Individuals seeking to graduate from Washington University with a Doctor of Medicine degree are expected to gain broad competence in the skills that underlie the practice of medicine and surgery. With or without accommodations, they must have the knowledge, attitudes, and skills necessary to meet the School of Medicine’s educational program objectives and meet the Technical Standards outlined in the Washington University School of Medicine Technical Standards for the Medical Program (http://bulletin.wustl.edu/medicine/policies/technical-standards/), which is available in the Policies & Guidelines section (http://bulletin.wustl.edu/medicine/policies/) of this Bulletin.

Application Procedure

General information for prospective medical students and instructions for how to apply can be found on the Medical Student Admissions website (http://mdadmissions.wustl.edu/).

Washington University School of Medicine participates in the American Medical College Application Service (AMCAS) of the Association of American Medical Colleges. AMCAS provides a centralized system for applying to any participating medical school with only one application and one set of official transcripts of academic work.

The AMCAS Application for Admission (https://students-residents.aamc.org/applying-medical-school/applying-medical-school-process/applying-medical-school-amcas/), which is common to all participating medical schools, is available online. Applicants are urged to file their applications as early as possible.

Applicants to the first-year class must submit their AMCAS application no later than November 30 of the year prior to that in which they want to matriculate. In addition, applicants must complete a supplemental application (https://mdapply.wustl.edu/), submit letters of recommendation, and pay a nonrefundable application fee of $100. These materials must be received no later than December 7. The Committee on Admissions will only evaluate an application when it is complete.

Selected applicants are invited for a personal interview as well as a tour of the School of Medicine and the Washington University Medical Center. This visit provides extensive opportunities for the applicant to meet and talk with students and faculty members.
Admission decisions are made by the Committee on Admissions on a rolling schedule beginning in early November. Applicants are notified as soon as a final decision has been made on their application. By April 15, every applicant should be notified whether they are accepted, on the waiting list or not accepted.

After the applicant has been accepted, matriculation is contingent upon sustained superior academic performance as well as continued ethical, honest and mature deportment. Accepted applicants must report to the Registrar of the School of Medicine all institutional judicial or academic sanctions and/or legal actions in which they have been a party prior to matriculation at the School of Medicine. Accepted applicants must report all institutional judicial and academic charges and/or legal charges brought against them before matriculation at the School of Medicine, where such charges could result in sanctions. Concealing or failing to report such sanctions and/or charges promptly and, more generally, failing to maintain high standards of moral and ethical behavior may result in rescission of acceptance, dismissal from the School of Medicine, or revocation of the Doctor of Medicine degree.

**Merit-Based Scholarships**

Merit-based scholarships are awarded in various amounts as funds allow. Recipients are selected based on their personal and academic accomplishments and their perceived potential to lead and contribute to the profession. There are multiple full and partial awards available. All accepted students are considered for merit-based scholarships without additional applications. Please consult the Financial Information section (http://bulletin.wustl.edu/medicine/financial/) of this Bulletin for further details.

**Acceptance Protocols**

As a participant in the American Medical College Application Service (AMCAS), the Washington University School of Medicine (WUSM) abides by the Application and Acceptance Protocols (https://students-residents.aamc.org/applying-medical-school/article/application-and-acceptance-protocols-applicants/) established by the Association of American Medical Colleges and encourages students to use the accompanying AMCAS Choose Your Medical School Tool (https://students-residents.aamc.org/applying-medical-school/article/amcas-choosing-your-medical-school-tool/). Applicants holding at least one acceptance from any medical school will have the option to “Plan to Enroll” in mid-February.

Per WUSM Admissions policy, applicants who have been offered admission to WUSM and who intend to matriculate at WUSM should indicate that they “Plan to Enroll” through the Choose Your Medical School Tool as soon as possible but by no later than April 30 of the year in which they will matriculate. WUSM reserves the right to rescind offers of acceptance if an applicant has not selected “Plan to Enroll” by April 30. After April 30, although applicants will maintain their “Plan to Enroll” status at WUSM, they may continue to hold positions on the waitlists of other schools.

Beginning April 30, accepted applicants have the option to “Commit to Enroll” at WUSM. When an applicant selects “Commit to Enroll” at WUSM, they should notify all other institutions where they hold an acceptance or position on the waitlist that they wish to withdraw their acceptance or position from the waitlist of that school. WUSM reserves the right to rescind an offer of admission to any applicant still holding an active acceptance at another institution while having a “Commit to Enroll” status with WUSM. WUSM reserves the right to rescind offers of admission from any applicant still holding a WUSM acceptance while indicating that they either “Plan to Enroll” or “Commit to Enroll” at another institution after April 30.

For applicants accepted after April 30, the timeline for selecting “Plan to Enroll” will be specified by the Associate Dean for Admissions.

All MD applicants planning to matriculate at WUSM should select the “Commit to Enroll” option no later than one week before the first day of orientation.

Should an applicant have an extenuating circumstance preventing compliance with this policy, it is the applicant’s responsibility to notify the WUSM Admissions Office and seek an extension or exception.

**Background Checks and Screening for Controlled Substances**

Students entering the School of Medicine and who will have contact with patients are required to undergo criminal background checks and screening for controlled substances (e.g., THC/cannabis, cocaine, opiates, amphetamines, phencyclidine) to qualify for participation in patient care activities at WUSM-affiliated facilities. Drug screening usually will be conducted during student orientation prior to the start of classes. Incoming prematriculant students and visiting students will be disqualified to study at the School of Medicine if they do not consent to background checks, if they have significant positive findings on the background checks, or if they have illicit substances detected on drug screening without a bona fide medical indication. Disqualified prematriculant students and disqualified visiting students will be precluded from matriculation and will not be registered as students in the School of Medicine.
Important Dates

- AMCAS application (https://students-residents.aamc.org/applying-medical-school/applying-medical-school-process/applying-medical-school-amcas/) deadline: November 30, 2021
- WUSM supplemental application (https://mdapply.wustl.edu/) deadline: December 7, 2021
- “Plan to Enroll” required: April 30, 2022

Visit the Important Dates page (https://mdadmissions.wustl.edu/how-to-apply/important-dates/) of the Admissions website for a complete list of dates and deadlines.

Advanced Standing Transfers

Due to the specifics of the new Gateway Curriculum, Washington University School of Medicine does not accept advanced standing (transfer) students from other medical schools. For more details of this policy, please refer to the Washington University School of Medicine Advanced Standing Transfers Policy for Medical Students. (http://bulletin.wustl.edu/medicine/policies/advanced-standing/)

Visit the Medical Student Admissions website (http://mdadmissions.wustl.edu/) for full admissions information and to check the status of an application.

Curriculum

By conferring the MD degree, the university certifies that the student is competent to undertake a career as a doctor of medicine. It certifies further that, in addition to medical knowledge and skills, the graduate possesses qualities of personality — compassion, emotional stability and a responsible attitude — essential to an effective professional life.

Accreditation

The Washington University School of Medicine’s MD program is nationally accredited by the Liaison Committee on Medical Education (LCME (https://www.aamc.org/services/first-for-financial-aid-officers/lcme-accreditation/)). The LCME is recognized by the U.S. Department of Education as an accrediting agency for medical education programs leading to the MD degree.

Most state boards of licensure require that applicants graduate from a U.S. medical school accredited by the LCME as a condition for licensure. In addition, most state boards of licensure require that U.S. applicants take and pass the United States Medical Licensing Examination (USMLE (https://www.usmle.org/)). For U.S. medical students to be eligible to sit for the USMLE, their school must be accredited by the LCME. Graduates of LCME-accredited schools are also eligible for residency programs accredited by the Accreditation Council for Graduate Medical Education (ACGME (https://www.acgme.org/)).

The School of Medicine has determined that, as a result of its LCME accreditation, its MD program curriculum meets the educational requirements to sit for the USMLE and to pursue licensure and certification in all states and territories of the United States and Washington, DC.

For Students Entering the MD Program in July 2020 or After:

The Gateway Curriculum ensures that students are not only exceptional physicians but that they are also prepared to lead the transformational changes needed to improve the future of health care delivery and the understanding of health and social determinants of health. The curriculum will include three phases.

Phase 1

Phase 1 will consist of 61 total weeks of curricular time: 48 of these will involve Integrated Foundational Modules, nine will be spent in Clinical Immersions, and four will be made up of the EXPLORE Immersion.

The Integrated Foundational Modules will present key science content in several fundamental areas. The Clinical Immersion time will contain clinical experiences that are authentic, varied in content, and appropriate for the student’s level of ability.

Phase 2

Phase 2 will include 12 months of clinical clerkship experiences in the content areas of Internal Medicine, Neurology, Obstetrics & Gynecology, Pediatrics, Psychiatry, and Surgery. Each clerkship will begin with one week of specialty-specific foundational science that consists of the purposeful reiteration and expansion of prior material and new material. This material will be taught in a “signs and symptoms” framework in order to facilitate core knowledge transfer to clinical reasoning. Each clerkship will end with one week dedicated to assessment, reflection, coaching, and communities (ARCC).

Phase 3

Phase 3 will consist of 64 weeks total. Students will engage in 36 weeks of required elements that will include four weeks of Internal Medicine Subinternship, 16 weeks of Advanced Clinical Rotations (ACRs), 12 weeks of required Keystone Integrated Science Courses (KISCs), and four weeks of Capstone. In addition, students will have the opportunity to take 36 weeks of electives (clinical, research, other non-clinical) inclusive of the following:
• Up to eight credit-bearing weeks of USMLE study time
• Six weeks of School of Medicine holiday time
• Up to four weeks of unscheduled (no credit) time, not inclusive of holiday time

There is no limit on the amount of elective time that can be dedicated to research activities (excepting MSTP students who have completed their PhD training).

**For Students Entering the MD Program Prior to July 2020:**

The curriculum includes a core experience based upon a sequence of courses that introduces students to the many domains and disciplines of medicine. The principles, methods of investigation, problems and opportunities in each of the major disciplines of medical science and medical practice are presented in such a way as to help students select the career best suited to their abilities and goals. Through all four years of the curriculum, key topics known as *Threads* are woven throughout the learning experience, linking clinical and course work and enhancing the learning experience.

The preclinical curriculum provides a science and investigative foundation for future clinical practice. First-year and second-year course work combines basic science taught via a variety of didactic means, including lectures, small groups, simulations and case-based learning. It also includes a Practice of Medicine course that uses regular patient interactions and integrative cases to teach students to skillfully interview and examine patients while integrating current health disparities and issues in the present global spectrum.

In addition, students have the opportunity during their first year to complete four 10-hour selective courses in the humanities, the basic sciences and various clinical areas, which provides enrichment and in-depth focus on areas beyond the core curriculum. The preclinical curriculum is pass/fail.

The overall goal of the third year is the implementation of the fundamental interactive clinical skills necessary for the practice of medicine at the highest possible level of excellence. Students achieve this goal by participating in intensive, closely supervised training experiences in the core clinical clerkships, which involve inpatient and ambulatory settings and interactions with patients who present a spectrum of emergent, urgent, routine and chronic clinical problems. Through these experiences, students exhibit growth and maturation in their abilities to take medical histories, perform complete physical examinations, synthesize findings into a diagnosis, formulate treatment plans, and document and present information in a concise, logical and organized fashion.

During the final year of the medical school curriculum, the required elective program helps students to decide where their major interests lie. It also enables them to benefit from the wide range of specialized knowledge and skills found in the faculty, and it lays the foundation for lifelong learning and the application of principles. The elective program permits students to select, according to their desires, the areas that they wish to explore or to study in depth. The fourth year is also offers students the opportunity to synthesize the learning from the third year in preparation for clinical residency. Toward this end, students are required to complete a Capstone course prior to graduation.

**Washington University School of Medicine Medical Student Program Objectives**

The educational program is designed to ensure that each student will demonstrate the following:

**Foundational Knowledge for Practice**

1. Demonstrate basic knowledge of normal human structure and function at the molecular, genetic, cellular, tissue, organ-system and whole-body level in growth, development and health maintenance.
2. Demonstrate knowledge of the epidemiology and basic mechanisms involved in the pathogenesis of common human diseases and their influence on clinical presentation and therapy.
3. Demonstrate basic knowledge of the impact of ethnicity, culture, socioeconomic status, patient and provider biases, and other social factors on health and disease.
4. Demonstrate basic knowledge of the ethical principles and professional values that underpin the medical profession.
5. Demonstrate basic knowledge of the common scientific methods used to study health and disease.
6. Demonstrate basic knowledge of the methods and principles used for improving the quality, safety and costs of health care delivery for patients and populations.

**Patient Care**

1. Obtain appropriate medical histories that include psychosocial and behavioral factors that influence health.
2. Perform accurate physical examinations.
3. Participate in clinical procedures as required by the curriculum.
5. Develop individualized diagnostic and treatment plans across the broad spectrum of acute and chronic conditions.

**Interpersonal and Communication Skills**

1. Demonstrate respectful and effective verbal and nonverbal interpersonal and communication skills with patients, families, colleagues, and all members of the educational and health care teams.
2. Discuss diagnostic and treatment options in a manner that will facilitate the participation of patients and their families in shared decision making.
4. Provide succinct and organized oral patient presentations.
5. Educate patients and families on strategies to reduce risk and promote health.
6. Work collaboratively and effectively on interprofessional teams.

Professionalism
1. Maintain a professionally appropriate demeanor.
2. Exhibit high standards of professional integrity.
3. Apply legal and ethical principles governing the physician–patient relationship.
4. Act in the patient’s best interest and serve as a patient advocate.
5. Recognize, monitor and address psychological and physical factors in oneself that may affect professional performance.

Systems-Based Practice
1. Recognize the roles of various members of the interprofessional health care team and the scope of their practice.
2. Demonstrate the ability and willingness to adapt to various health care delivery settings (e.g., inpatient, ambulatory, operating room, labor and delivery, emergency department).
3. Recognize barriers to and facilitators of safe, high-quality patient care.
4. Describe individual, team, and system challenges that may contribute to medical errors.
5. Demonstrate the ability to identify medical errors when they occur.

Practice-Based Learning and Improvement
1. Demonstrate the skills needed for lifelong learning, including the ability to identify and address personal strengths and weaknesses, to incorporate formative feedback, and to self-assess knowledge and performance to develop a self-improvement plan.
2. Apply an evidence-based approach to selecting, appraising and utilizing evidence from scientific studies related to clinical questions and patients’ health problems.

Contact Information
For additional information or specifics about the MD curriculum, please use the following contact information:

Washington University School of Medicine
Office of Medical Student Education
Bernard Becker Medical Library, Room 301

CB 8214
660 S. Euclid Ave.
St. Louis, MO 63110
Hours: 8:30 a.m. to 5:00 p.m., Monday through Friday
Phone: 314-362-7122

MD Program Website (https://md.wustl.edu/)

Core Courses

Research
Students pursuing the Doctor of Medicine degree may receive elective credit for research projects completed during their fourth year. For additional information about the enrollment process and to learn more about research elective opportunities, please email the Electives Office (wusmelectives@wustl.edu).

Research opportunities are not mandatory, but the majority of MD students participate in some form of research during their educational career at Washington University School of Medicine. Our Medical Student Research Program provides a wide array of research opportunities to complement different student interests and to suit various career paths. For more information about these research opportunities and the application process, please reference the Office of Medical Student Research website (https://mdstudentresearch.wustl.edu/).

Faculty

2021-22 Course & Clerkship Directors

First Year

Human Body: Anatomy, Embryology, Imaging
Kari Allen, PhD
Amy Bauernfeind, PhD

Histology and Cell Biology
Paul Bridgman, PhD

Molecular Foundations of Medicine
Linda Pike, PhD

Physiology
Robert Mercer, PhD
Stephen Gregory, MD
Lai Kuan Dionne, PhD

Immunology
Brian Edelson, MD, PhD

Medical Genetics
Sabrina Nunez, PhD

Microbes and Pathogenesis
Henry Huang, PhD
Scott Hultgren, PhD
Neural Sciences
Krikor Dikranian, MD, PhD
Timothy Holy, PhD

Principles of Pharmacology
Simon Haroutunian, PhD

Practice of Medicine I
Timothy Yau, MD

First-Year Selectives
Faculty members from many departments and divisions at Washington University School of Medicine offer first-year selective course options focused on basic science, clinical experience and the humanities.

Second Year
Clinical Topics in Otolaryngology
Joseph Bradley, MD

Endocrinology and Metabolism
Amy Riek, MD
Marina Litvin, MD

Cardiovascular Disease
Dana Abendschein, PhD
Justin Sadhu, MD, MPHs

Pulmonary Disease
Adrian Shifrin, PhD
Jeffrey Atkinson, MD

Renal and Genitourinary Diseases
Steven Cheng, MD

Dermatology
David Sheinbein, MD
Heather Jones, MD

Gastroenterology and Liver Disease/Nutrition
Sandeep Tripathy, MD, PhD

Obstetrics and Gynecology
Kenan Omurtag, MD

Diseases of the Nervous System
Allyson Zazulia, MD

Diseases of the Nervous System: Psychiatry
Marcie Garland, MD

Infectious Diseases
Nigar Kirmani, MD
Steven Lawrence, MD

Rheumatology
Lisa Zickuhr, MD

Hematology and Oncology
Meagan Jacoby, MD, PhD
Eric Knoche, MD

Pediatrics
Amanda Emke, MD
Ericka Hayes, MD

Pathology
Erika Crouch, MD, PhD

Practice of Medicine II
Megan Wren, MD

Third Year
Integrated Surgical Disciplines Clerkship
Michael Awad, MD, PhD

Medicine Clerkship
Gerome Escota, MD

Neurology Clerkship
Robert Naismith, MD

Obstetrics and Gynecology Clerkship
Stewart Massad, MD
Tammy Sonn, MD

Pediatrics Clerkship
Laura Hall, MD
Colleen Wallace, MD

Psychiatry Clerkship
Brendan O’Connor, MD

Practice of Medicine III
Timothy Yau, MD

Fourth Year
Capstone
Tosin Adeyanju, MD
Michael DeVita, MD
Holly Steiner, MD
Melissa Stewart, MD

Fourth-Year Electives
Faculty members within all departments and divisions at Washington University School of Medicine offer a vast selection of clinical elective rotations and independent study opportunities for students in their final year of the MD program.