# **MEDICINE (MD)**

NYSED: 08194 HEGIS: 1206.00 CIP. 51.1201

## **Program Description**

Every student enrolled in our MD degree program receives a Full-Tuition Scholarship, regardless of merit or financial need, that covers the majority of the cost of attendance. Our Full-Tuition Scholarships make it possible for aspiring physicians to choose a specialty based on their talent and inclinations to better serve the communities who need it most, and to more easily pursue scientific breakthroughs that improve how we care for patients. We aim to turn the best and brightest future physicians into leaders with the potential to transform healthcare.

Our groundbreaking accelerated three-year MD program, launched in 2013, reduces the traditional medical school curriculum by one full year, with the ability to opt in during your first year of medical school. With our four- and five-year pathways to the MD degree, including dual degree programs, we offer unparalleled flexibility to customize your medical training in ways that align with your professional interests.

Join us in an educational experience that integrates clinical skills, quality, and evidence-based medicine, and emphasizes the importance of patient-centered care to inform and enhance healthcare in the 21st century.

## Admissions

At NYU Grossman School of Medicine, we're proud that our medical students are well-rounded and versed in topics beyond the humanities and sciences. We believe this diversity better positions them to solve healthcare's biggest challenges.

To be eligible, applicants must meet several criteria:

- be a U.S. citizen, permanent resident, or have Deferred Action for Childhood Arrivals (DACA) status
- have a bachelor's degree from an accredited college or university in the United States or Canada
- we also accept applications from international students who have a bachelor's degree from an accredited college or university in the United States or Canada
- the Medical College Admission Test (MCAT) is required for all applicants

## **Foundational Academics for MD Candidates**

Our MD program candidates are knowledgeable in core scientific subjects and demonstrate strong communication skills, which form the foundation necessary for success in medical school.

## **Bachelor's Degree and GPA**

Applicants to NYU Grossman School of Medicine must hold a bachelor's degree from an accredited college or university in the United States or Canada.

The median and average undergraduate GPAs for students in our most recent incoming class were 3.96 and 3.92, respectively.

## **Premedical Coursework**

NYU Grossman School of Medicine does not have prerequisites. However, we recommend the following premedical courses:

- · inorganic chemistry, organic chemistry, and biochemistry with lab
- general biology with lab
- · general physics with lab
- statistics
- genetics
- English
- We consider courses completed at schools of dentistry, nursing, veterinary medicine, or pharmacy as part of your application materials but do not provide credit for such courses.

## **Medical College Admissions Test**

Your score on the Medical College Admission Test (https://studentsresidents.aamc.org/applying-medical-school/taking-mcat-exam/) (MCAT), a standardized, multiple-choice examination, helps our admissions committee assess your ability to solve problems and think critically about behavioral and scientific concepts. You take the test no later than September of the year you apply to medical school.

We consider MCAT scores only from three years prior to your expected matriculation date. For example, if you plan to enroll in fall 2025, the oldest acceptable MCAT score would be from January 2022.

The median and average MCAT scores among students in our most recent incoming class were 523 and 522.39, respectively.

## **Letters of Evaluation**

Providing letters of evaluation is part of the NYU Grossman School of Medicine application process. We require a premedical committee appraisal letter (preferred) or two letters from professors who taught you in courses (at least one in science). Nontraditional applicants are encouraged to submit two letters of recommendation from colleagues with whom you've worked closely.

Applicants must submit letters of recommendation via the AMCAS Letter Service by the November 15 deadline. Do not send any letters directly to NYU Grossman School of Medicine. Please consult AMCAS FAQs for additional instructions and be sure to review the guidelines for Letters of Evaluation (https://students-residents.aamc.org/applying-medicalschool/article/section-6-letters-evaluation/).

## **Technical Standards and Criminal Background Check**

All accepted applicants meet NYU Grossman School of Medicine's technical standards (https://med.nyu.edu/education/ md-degree/current-md-students/student-handbook/#som-technicalstandards), which define the physical, mental, emotional, and social abilities that support success in medical school. You also complete a criminal background check, at no additional cost, to ensure patient safety.

## **Program Requirements**

NYU Grossman School of Medicine trains future physicians with an innovative, flexible MD degree curriculum known as the Curriculum for the 21st Century: Personalized Pathways, or C21. Our program enables students to master the knowledge and skills necessary to succeed in medicine and provides opportunities to customize their studies at designated points in their training.

Whether it's gaining early acceptance to a residency program with the three-year MD directed pathway (https://med.nyu.edu/education/mddegree/three-year-md-directed-pathway/), training to become a physicianscientist with our MD/PhD degree (https://med.nyu.edu/research/ sackler-institute-graduate-biomedical-sciences/md-phd-program/), or exploring a professional area that complements the MD degree with one of our dual MD/master's degrees (https://med.nyu.edu/education/mddegree/dual-md-masters-degrees/), C21 offers many options for students to achieve their own personal career goals.

C21 provides patient-centered and disease-focused training to help students make connections between basic science concepts learned in the classroom and their real-world clinical application. In your clerkship year and beyond, those concepts are reinforced through daily patient contact, online and simulation exercises offered at NYSIM, the New York Simulation Center for the Health Sciences, and progress assessments. Diversity and health disparities are also explored in the context of C21.

The following information explains a student's typical progression through our Personalized Pathways MD curriculum:

## Stage One: Preclerkship Curriculum

Stage one of the MD curriculum at NYU Grossman School of Medicine features 11 months of interdisciplinary preclerkship modules that cover foundational basic science concepts in biology, anatomy, physiology, and pathophysiology. Preclerkship education includes a concurrent Foundational Clinical Skills module that provides opportunities for students to participate in clinical learning experiences with patients.

This integrated educational experience gives you the opportunity to apply concepts learned in the classroom to real-life patient scenarios. You gain insight into the behavioral and social aspects of practicing medicine that help you develop the necessary skills to interact with patients and other healthcare providers in your clerkships and internships.



During stage one of the MD curriculum, students participate in several preclerkship modules. Foundations of Medicine takes place from July through Mid-September; Living Anatomy from Mid-September to Mid-October; Organ Systems from Mid-October through May; and Foundational Clinical Skills throughout the year.

## **Preclerkship Modules**

The preclerkship modules you complete during your first year of medical school provide the biological and scientific knowledge you need for success in clerkships and beyond. We integrate overarching educational themes to provide you with a scaffolding for longitudinal learning.

### **Foundations of Medicine**

All students begin the first semester of medical studies with Foundations of Medicine, a module that emphasizes the key basic science concepts that underlie the practice of clinical medicine.

### **Living Anatomy**

The Living Anatomy module is an examination and exploration of the human body through the major regions and systems. Students learn the developmental origins and clinical presentation of anatomy through integration with embryology and medical imaging, respectively. Lectures introduce students to anatomical structures and spaces: their pathways, key spatial relationships and functions. Lab sessions use a multimodal approach to integrate physical and digital learning assets that provide students numerous visualizations of the anatomy for clarity and emphasis. In addition, the clinical application of anatomy is reinforced through formative case-based discussions that highlight key spatial relationships and functions.

### **Organ Systems Modules**

In the first-year organ systems modules, you participate in learning activities that focus on physiology, pathology, and pathophysiology integrated across the following human organ systems:

- cardiovascular
- pulmonary
- kidney
- dermatology
- rheumatology
- gastrointestinal
- · endocrine and reproductive medicine
- neurology (brain)
- psychiatry (behavior)

You examine the effects of disease on each organ system and how each relates to the others. As you discover the pathophysiology underlying specific disease states, you develop the problem-solving skills necessary to diagnose and propose treatment options for each.

### **Foundational Clinical Skills Module**

The Foundational Clinical Skills (FCS) module, woven throughout the preclerkship curriculum, allows you to combine concepts learned in the classroom and laboratory with bedside learning experiences. You learn core clinical skills that serve as the foundation for your clerkships, medical training, and practice beyond.

During the FCS module, you focus on bedside diagnosis and clinical reasoning. You also learn various communication and conflict-resolution techniques. Clinical teaching highlights respectful, responsive care that addresses each patient's needs, preferences, and values. At the conclusion of year one, students have the opportunity to explore various career choices during an eight-week summer fellowship.

Preclerkship grades comprise pass and fail.

### **Summer Research Fellowship**

The Summer Research Fellowship (SRF) provides you with an early opportunity to embark on a longitudinal scholarly research experience, develop fundamental skills in research and/or clinical scholarship, and explore the clinical environment relevant to helping you choose and explore your future career and residency interests. This experience (https://nyusom.brightspace.com/d2l/home/27621/) (a Kerberos ID is required for login) will take place for six weeks during the summer after your first year of medical school.

## Stage Two: Clerkship Year

During core clerkships at NYU Grossman School of Medicine, you acquire invaluable experience on the wards and clinics at NYU Langone and our

affiliated clinical training sites (https://med.nyu.edu/education/mddegree/md-curriculum/clinical-training-sites/). Over the course of 10 months, you develop the clinical judgment skills necessary to diagnose and treat patients.

You begin your clerkship year in August of your second year, months earlier than students at most other medical schools. This provides you with additional time to explore specialty or subspecialty areas that interest you through electives (https://med.nyu.edu/education/mddegree/md-curriculum/stage-three-individualized-exploration/electivecourses/), as well as in areas of concentration (https://med.nyu.edu/ education/md-degree/md-curriculum/stage-three-individualizedexploration/areas-concentration/) later in the curriculum.

The clerkship year begins in July with a one-week Transition to Clerkship orientation that prepares you for the clerkship experience. You review the skills essential for a smooth transition to clerkship year including the responsibilities that are expected of you as a member of a healthcare team. This is followed by your clerkship experiences and Integrated Clinical Skills sessions that take place from August through May.



\*United States Medical Licensing Examination (USMLE) Step 1 or Step 2

During stage two of the MD curriculum, students participate in a Transition to Clerkship orientation course that takes place in July followed by clerkship experiences and Integrated Clinical Skills sessions that take place from August through May.

We offer core clerkships in seven general areas: ambulatory care, general surgery, neurology, medicine, obstetrics and gynecology, pediatrics, and psychiatry. As part of your neurology and psychiatry block, you have a one-week neuropsychiatry integrated experience to highlight the cutting-edge intersection of these two disciplines. Your clerkship rotations occur in 4 blocks, each 10 weeks in duration, that includes 4 weeks of elective time for career exploration.

## The Clerkship Experience

Our medical students take on a wide range of responsibilities during their clerkships. You may assist with labor and delivery during your obstetrics and gynecology rotation, suture incisions at the end of procedures during your surgery rotation, or place intravenous lines or catheters during your rotation in medicine.

As a clerkship student, you are integrated into the medical team and work with attending physicians, residents, and/or fellows as well as other interdisciplinary team members. You have the opportunity to spend invaluable time at the bedside learning from and educating your patients, presenting cases to your team, and developing diagnostic and treatment plans. Other likely tasks include writing patient notes and gathering diagnostic data, including lab and imaging test results.

At the end of each clerkship block, your performance is assessed in a number of ways including by your supervisors (attending physicians,

residents, and/or fellows), through observed structured clinical examinations (OSCEs), submission of internal assignments (such as patient write-ups or quizzes), and National Board of Medical Examiners (NBME) shelf exams.

You take subject-specific standardized shelf exams to determine how well you understand materials presented in the medicine, neurology, obstetrics and gynecology, pediatrics, psychiatry, and surgery clerkships. Shelf exams occur after you complete the corresponding clerkship.

Clerkship grades comprise honors, high pass, pass, and fail.

#### Electives

During your clerkship year, as part of the 10-week surgery block, there are two four weeks dedicated to elective rotations from a broad range of offerings across departments, which allow you to individualize your education based on your professional interests.

#### **Integrated Clinical Skills**

You participate in two one-week Integrated Clinical Skills (ICS) sessions in October and March, which take place between your clerkship blocks. These are intended to further strengthen and enhance your clinical skills training by building on both the Foundational Clinical Skills module in the preclerkship curriculum and experiences in the clinical environment during clerkships.

Topics are geared toward improving the clinical skills needed to provide patient care at the individual patient and systems level that is patient-centered, team-based, safe, high-value, and equitable and that incorporates evidenced-based best practices and emerging technologies. Examples of specific sessions include advanced communication skills such as goals of care discussions, point-of-care ultrasound training, and patient handoffs. The ICI sessions also focus on professional identity development, the opportunity to practice skills and receive feedback, and goals for subsequent clinical experiences.

These educational experiences include faculty- and student-led small group sessions, interactive didactics, panel discussions, workshops, and simulations at the New York Simulation Center for Health Sciences (NYSIM).

#### Shelf Exams

You take subject-specific standardized "shelf" exams to determine how well you understand materials presented in the medicine, neurology, obstetrics and gynecology, pediatrics, psychiatry, and surgery clerkships. Shelf exams occur after you complete the corresponding clerkship.

#### **Comprehensive Clinical Skills Examination**

During stage two, you also take our comprehensive clinical skills exam (CCSE) (https://med.nyu.edu/education/md-degree/md-curriculum/ stage-two-clerkship-year/comprehensive-clinical-skills-exam/). This performance-based exam ensures proficiency in core clinical skills at the completion of clerkship year. Our CCSE is a series of mock patient encounters that assess your skills in communication, taking patient histories, conducting physical examinations, and clinical reasoning.

#### Preparing for the USMLE

Upon completing the clerkship curriculum, all students take the first and second parts of the U.S. Medical Licensing Examination (USMLE), the three-part exam required for medical licensure, also known as "the boards."

USMLE Step 1 (https://www.usmle.org/step-exams/step-1/). Opens in a new tab comprises a series of questions and problem-solving tasks

that assess your ability to apply science fundamentals to the practice of medicine. Topics covered on the USMLE Step 1 include the following:

- anatomy
- behavioral sciences
- biochemistry
- biostatistics
- epidemiology
- microbiology
- · pathology
- pharmacology
- physiology

Additional USMLE Step 1 questions focus on aging, genetics, immunology, medical ethics, molecular and cell biology, and nutrition.

The USMLE Step 2 CK (https://www.usmle.org/step-exams/step-2-ck/), the second part of the three-step exam for medical licensure, assesses medical knowledge and scientific concepts as they are applied to patient diagnoses and care, health maintenance and management, and disease prevention. It is administered in 8 hour-long blocks during a single day, with 45 minutes of break time and a 15-minute tutorial session.

## **Stage Three: Individualized Exploration**

In stage three of NYU Grossman School of Medicine's MD curriculum, you can take Step 1 or Step 2 of the U.S. Medical Licensure Exam (USMLE) and pursue individualized exploration in specialty and subspecialty areas of interest through post-clerkship electives, and the advanced clinical skills module.



\*United States Medical Licensing Examination (USMLE) Step 1 or Step 2

During stage three of the MD curriculum, students take the USMLE Step 1 or Step 2 and participate in electives, advanced electives, advanced clerkships, an area of concentration, and residency interviews. The Advanced Clinical Skills module takes place from July through May.

## **Critical Care Clerkship**

In a four-week critical care clerkship, you develop the knowledge, skills, and experience you need to care for critically ill patients. You are assigned to a specialty intensive care unit and become an active member of the care team. Responsibilities include daily teaching rounds and following, assessing, and treating critically ill patients.

### Subinternships

Another component of stage four of the MD curriculum is a four-week subinternship in one of three areas—advanced medicine, advanced surgery, or advanced pediatrics. During the subinternship, you take on patient care responsibilities that exceed those in your core clerkships. This helps you excel during the internship year of your upcoming residency. Subinternship responsibilities may include taking overnight calls, admitting patients, and entering orders.

#### **Advanced Medicine Subinternship**

The advanced medicine subinternship provides additional training and experience in managing the care of hospitalized patients on an internal medicine inpatient ward. It better prepares you for a residency in internal medicine or, if that is not your eventual destination, offers a final opportunity to study internal medicine before you complete residency training in another area.

#### **Advanced Surgery Subinternship**

The advanced surgery subinternship provides additional training and experience in general surgery. It also fulfills the subinternship graduation requirement for students applying for a residency in general surgery or another surgical specialty.

#### **Advanced Pediatrics Subinternship**

The advanced pediatrics subinternship is for students who have successfully completed their pediatrics clerkship and are interested in additional pediatrics training and experience. It also fulfills the subinternship graduation requirement for students applying for a residency in pediatrics.

Grades are honors, high pass, pass, and fail.

### Senior Clinical Skills Exam (Night-on-Call)

The senior clinical skills exam, part of our Advanced Clinical Skills Curriculum, is an immersive experience that consists of a night on call in the simulation center. The exam challenges students to be the intern and perform tasks that include evaluating patients, collaborating intra- and inter-professionally, using oral and written documentation, and critically appraising information to inform decision-making. All of this work is framed within routine clinical activities that you should be ready to perform upon graduation. You receive written feedback on your performance, including areas of strengths and gaps that might be addressed before or upon transitioning to residency. Past participants have found this exam to be an authentic, rewarding, and enjoyable experience.

### **Transition to Residency**

During the two-week transition to residency course, students focus on integrating basic science and clinical knowledge. You then work to identify your own learning needs as you look ahead to your internship. The course is a mix of workshops, simulation, and conferences. A key focus is on developing autonomy, understanding the limits of selfreliance, and knowing when to ask for help. The overall goal is to put students in a position to not only survive, but also to thrive as a leader and educator during your internship and residency years.

### **Dual Degree/Research Year**

At NYU Grossman School of Medicine, our four-year dual MD/master's degree (https://med.nyu.edu/education/md-degree/dual-md-masters-degrees/) programs allow students to explore various interests along with medicine. You can earn your MD degree in tandem with a master's degree from another NYU graduate school, expanding your career options in less time and at a reduced cost than completing the degrees separately.

	JULY	AUG	SEPT	ост	NOV	DEC	JAN	FEB	MARCH	APRIL	MA	Y	JUNE	
STAGE 1	Foundations of Unlex Organ Systems I Organ Systems I Organ Systems I Organ Systems II Or								Organ S	ystem	s III	Summer Research		
TAGE 2	Clerkships 30												USMLE*	
ŝ	Integrated Clinical Skills													
	Optional Dual Degree/Research Year													
STAGE 3	Critical Care Clerkship, Subinternship, Electives Area of Concentration, Interviews, Transition-to-Residency, Night-On-Call Advanced Clinical Skills													
	All shared Chi													

Our four-year MD/dual degree programs allow students to explore various interests along with medicine. After completing stage 2, you can earn your MD degree in tandem with a master's degree from another NYU graduate school. Alternatively, students can pursue a research year in a laboratory of their choice. In either pathway, USMLE Steps 1 and 2 are taken before the research year, and stage three of the MD curriculum.

#### **MD/Phd Training**

At NYU Grossman School of Medicine's Vilcek Institute of Graduate Biomedical Sciences, we prepare MD/PhD candidates who seek to move beyond the boundaries separating scientific research and clinical practice. Under the guidance of our training faculty, our graduates are poised to assume leadership positions in academic medicine and biomedical research. Through our Medical Scientist Training Program, one of 49 programs in the United States recognized by the National Institutes of Health/National Institute of General Medical Sciences, our rigorous dual MD/PhD curriculum (https://med.nyu.edu/research/vilcekinstitute-graduate-biomedical-sciences/md-phd-program/) merges the fundamentals of scientific inquiry with clinical insight and experience.



The Medical Scientist Training Program (MD/PhD) pathway allows students to earn an MD degree in tandem with a PhD in a chosen field. USMLE Steps 1 and 2 are taken before entering graduate school.

## Sample Plan of Study



#### **Three-Year MD Directed Pathway**



\*United States Medical Licensing Examination (USMLE) Step 1 or Step 2

#### Four-Year Dual Degree And Research Options



\*United States Medical Licensing Examination (USMLE) Step 1 and Step 2

#### **MD/PhD Training Pathway**



## **Learning Outcomes**

Upon successful completion of the program, graduates will:

- 1. Have the opportunity to apply concepts learned in the classroom to real-life patient scenarios.
- Gain insight into the behavioral and social aspects of practicing medicine that helps develop the necessary skills to interact with patients and other healthcare providers in your clerkships and internships.
- 3. Be provided with the biological and scientific knowledge needed for success in clerkships and beyond.
- 4. Examine the effects of disease on each organ system and how each relates to the others.
- 5. Learn various communication and conflict-resolution techniques.
- 6. Have the ability to apply science fundamentals to the practice of medicine.
- 7. Assess medical knowledge and scientific concepts as they are applied to patient diagnoses and care, health maintenance and management, and disease prevention.
- 8. Develop the knowledge, skills, and experience you need to care for critically ill patients.

## Policies NYU Policies

University-wide policies can be found on the New York University Policy pages (https://bulletins.nyu.edu/nyu/policies/).

## **Grossman School of Medicine Policies**

A list of related academic policies can be found on on the Grossman School of Medicine Academic Policies page (https://bulletins.nyu.edu/ graduate/medicine-grossman/academic-policies/).