

Medicine, M.D.

Degrees Offered

- Doctor of Medicine
- Joint Doctor of Medicine and Doctor of Philosophy

The degree of doctor of medicine (MD) is granted to students who have completed the prescribed curriculum and who have been recommended for the degree by the Committee on Academic and Professional Standards (CAPS) to the faculty of the School of Medicine who will review these recommendations and vote to accept or reject.

The MD/PhD program is available to students who show exceptional interest and scholarly promise. All admission requirements of the School of Medicine and the specific graduate program apply.

The following information applies only to students in the School of Medicine who are enrolled in the prescribed curriculum which culminates in the MD degree.

All other students, undergraduates, or graduates enrolled in other programs in the School of Medicine are governed by the policies found elsewhere in this catalog.

Accreditation

The West Virginia University School of Medicine is accredited by the Liaison Committee on Medical Education (LCME).

Promotion and Graduation Requirements

EVALUATION OF STUDENT PROGRESS

Promotion of a student in the MD degree program is evaluated in four major areas: (1) successful completion of all required work, (2) successful completion of Step 1 and Step 2 of the United States Medical Licensure Examination (USMLE), (3) successful completion of the WVU School of Medicine Clinical Performance Exam, and (4) successful fulfillment of the professional standards of the School of Medicine, including 100 hours of community service.

The following information is only a brief outline of the School of Medicine policies and procedures. Detailed requirements and policies for evaluation of student progress and graduation may be found in the Policy on Academic and Professional Standards Governing the M.D. degree program at WVU School of Medicine on the Student Services website. The Committee on Academic and Professional Standards administers all promotion and dismissal rules.

Academic Coursework Review

The Committee on Academic and Professional Standards of the School of Medicine reviews the performance of each student in every course at the end of each academic period. If a student has been found to have an unsatisfactory performance in grade or narrative evaluations in any of the required courses, the student will be required to remediate the deficiency or be dismissed from the program in the school. In selected circumstances, the committee may require remedial work of all or a portion of the curriculum.

The Committee on Academic and Professional Standards may require a student to complete remedial work or dismiss the student even though no failing (F) grade has been received in a required course. Such an event would occur only if, in the opinion of the committee, the student's overall performance does not meet the academic/professional standards of the School of Medicine.

Readmission of a dismissed student is the prerogative of the Admissions Committee after careful review of the student's performance, including but not limited to, actions taken by the Committee on Academic and Professional Standards.

Grading Policy

Courses required for the M.D. degree are graded as honors (H), pass (P), or fail (F) at the completion of the course in lieu of other letter grades. The H, P, and F designations are accompanied by a narrative report of the student's progress, noting any factors requiring remedial work or counseling. The narrative is submitted by each course and filed in the student portfolio. A grade of F shall be regarded as a failing grade. The Honors designation is limited to no more than the top 15% of students completing the course in that academic year.

The grade of incomplete (I) is given when the instructor believes that the work is unavoidably incomplete or that a supplementary examination is justifiable. If a grade of I is not removed by satisfactory completion of the work before the end of the next semester in which the student is in residence, it becomes a failure unless special permission to postpone the work is obtained from the Committee on Academic and Professional Standards (University rule). All students who have a health problem which they feel may be causing difficulty with their academic progress are strongly advised to notify an associate dean for student services. It is the responsibility of the student to consult the instructor about the means and schedule for making up incomplete courses.

No student will be permitted to register for any course work of a subsequent year until all courses for the previous academic year have been completed successfully. The curriculum is divided into two phases: the pre-clerkship phase which ends with a passing score on USMLE Step 1, and the clerkship phase which is immersion in the clinical environment.

United States Medical Licensure Examination (USMLE)

All states require that physicians be licensed to practice medicine independently. Satisfactory completion of all portions of the United States Medical Licensing Examination (USMLE) is the only examination mechanism by which this license may be obtained for allopathic physicians. The School of Medicine requires a passing score on both Step 1 and Step 2 for promotion and graduation. A failing grade will delay progress and require remediation. Students are limited to three attempts on each step. Failure on the third attempt will result in dismissal from the program.

Step 1 is required upon successful completion of all foundational and basic science coursework in the pre-clerkship phase of the curriculum. A passing grade on USMLE Step 1 is required for promotion into the clinical rotations, or the clerkship phase of the curriculum. USMLE Step 2 is required after successful completion of all required core clerkship rotations. A passing score on USMLE Step 2 is required before a recommendation can be made to grant the M.D. degree by the School of Medicine faculty and Committee on Academic and Professional Standards.

Licensure examinations are administered using a computer-based testing format by the National Board of Medical Examiners (NBME).

Professional Standards Review

All non-disciplinary matters are governed by the concept of academic due process. Professionalism is one of the six core competencies of the degree program and an expectation of the profession itself.

In view of public and professional responsibilities, the faculty of each of the professional schools of WVU has the authority to recommend to the president of the University the removal of any student from its rolls whenever, by formal decision reduced to writing, the faculty finds that the student is unfit to meet the qualifications and responsibilities of the profession. For further information the reader is referred to the Policy on Academic and Professional Standards Governing the MD Degree Program at West Virginia University School of Medicine, which is available at the School of Medicine Student Services website and in the student handbook.

Departure from Scheduled Work

Medical students are registered for all prescribed courses for each term except by special permission from the Committee on Academic Standards and an associate dean for student services of the School of Medicine. This permission is not valid until it has been reported to the assistant director of admissions and records, Health Sciences Center, and Student Services School of Medicine.

Admissions

For the most up-to-date information, please refer to our admissions website at: <https://medicine.hsc.wvu.edu/md-admissions/>

Mission

Our Mission is to improve the health and well-being of everyone we serve.

The Committee on Admissions (COA) must select students who provide evidence that they will fulfill the mission of the WVU SoM. Applicants must have strong experiences in patient care (including MD shadowing), roles as educator and leader, research, and service to the state of West Virginia and beyond.

The COA practices a holistic review of each applicant, including the incorporation of competency-based admissions. Although the WVU SoM no longer requires specific coursework, all applicants must be able to provide evidence of a strong scientific fund of knowledge and strong social/interpersonal skills.

Required Core Competencies for Entering Medical Students

Please review the required core competencies on the AAMC website (<https://students-residents.aamc.org/real-stories-demonstrating-premed-competencies/premed-competencies-entering-medical-students/>).

Mastery of competencies can be demonstrated by successful completion of coursework, strong performance on the MCAT, and specialized experiences that have developed the required knowledge base such as research, employment, military courses, and self-study. Letters of recommendation and the interview can also help demonstrated interpersonal, intrapersonal and communication competencies.

Applicants will have the opportunity to describe how they have met the required competencies on the secondary application.

Medical College Admissions Test (MCAT)

All applicants are required to take the MCAT

- Scores will be accepted from exams taken between September 2022 and September of the year the application is submitted
- The most recent MCAT total and sub-section scores are what is reported to the committee, while all scores are reviewed
- If you are taking the MCAT this cycle, please wait to submit the secondary application until that score is released
- To identify what scores may be competitive for the regular decision program, please refer to our Class Profile (<https://medicine.hsc.wvu.edu/md-admissions/2023-class-profile/>) for more information
- Early Decision applicants must have a minimum MCAT total of 506 to apply. Please refer to the Early Decision Program (<https://medicine.hsc.wvu.edu/md-admissions/programs/early-decision-program/>) page for more information.

Academic Experience

A minimum of 90 credit hours (at the undergraduate or graduate level) from an accredited US or Canadian academic institution is required by matriculation.

A minimum of three years of higher education or employment post-high school is required before matriculation.

We do not require prerequisite coursework.

Successfully completing coursework is the most common way applicants can demonstrate science competency.

Examples of coursework that can demonstrate science competency may include some of the following:

- **Biochemistry**
- **Biological Sciences**
- **Chemistry**
- **Engineering Sciences**
- **Laboratory Sciences**
- **Mathematics/Statistics**
- **Organic Chemistry**
- **Physics**

Successful completion of these courses is the most common method in which applicants can demonstrate science competency

Letters of Recommendation

- One letter of recommendation of your choice.
- Or a committee letter from your undergraduate academic institution.
- Letters of recommendation should focus on the applicant's core competencies as listed through the AAMC. (<https://students-residents.aamc.org/anatomy-applicant/premed-competencies-resources/>)
- Letters of recommendation should be uploaded into AMCAS at least two weeks prior to your interview.
- Letters will only be considered when submitted through AMCAS.
- Additional letters will not increase an applicant's competitiveness.

Secondary Application

All AMCAS-verified applicants will have the opportunity to complete a secondary application. Applicants will be notified via email with instructions on how to submit the secondary application. Please refer to the Admissions Timeline (<https://medicine.hsc.wvu.edu/md-admissions/admissions-timeline/>) for important deadlines for the secondary application. DO NOT submit your secondary application until your most recent MCAT score is available.

Once we receive the completed secondary application, the applicant will then be placed on a roster to be holistically reviewed.

Interview Invite

Strong interview skills will be one way for an applicant to provide evidence of interpersonal and communication competencies.

Applicants will be notified via email if offered an interview. As there are a limited number of interview slots, some applicants may be placed on a wait list for an interview and could potentially be invited for an interview if slots become available during the admissions cycle. Applicants are encouraged to continue to update their application as this may help increase chances of being offered an interview slot.

Applicant Updates

Applicants can submit updates through their Apply Web Applicant Portal via the Checklist. Updates can include unofficial transcripts, continued or new mission-based experiences, and letters of intent after a completed interview. Additional letters of recommendation will only be accepted through AMCAS.

CASPer™ and AAMC PREview

Casper and AAMC PREview are not required and not considered in our holistic review.

Functional Technical Standards

In accordance with section 504 of the Rehabilitative Act of 1973 (PL93-112) and following careful review of the 1979 report by a Special Advisory panel on Technical Standards of the Association of American Medical Colleges, and incorporating the guidelines of the Americans with Disabilities Act (ADA PL 1010-336) enacted by Congress in 1990, the West Virginia University School of Medicine has adopted minimal technical standards for the assessment of all applicants to the School of medicine. Please see the Functional Technical Standards Policy here. (<https://medicine.wvu.edu/media/372008/functional-technical-standards-2024.pdf>)

Ineligible Applicants

- Medical Students who have been dismissed or have been terminated by any allopathic or osteopathic school will **not** be considered for admittance.
- Individuals who have previously earned an allopathic or osteopathic medical degree, whether in this country or abroad, will **not** be considered for admittance.

Admission Requirements 2025-2026

The Admission Requirements above will be the same for the 2024-2025 Academic Year, except for the required numbers of letters of recommendation and acceptable MCAT dates.

Major Code: 8342

Doctor of Medicine

CURRICULUM REQUIREMENTS

Code	Title	Hours
CCMD 801	Medical Biochemistry and Cellular Function	8
PALM 801	Human Structure	7
CCMD 802	Professional Development	1
CCMD 803	Problem Based Learning 1	1
CCMD 811	Physical Diagnosis/Clinical Integration (PDCI) 1	5
MICB 812	Immunity, Infection and Disease (MICRO) 1	4
PALM 812	Mechanisms of Human Disease (PATH) 1	3
PCOL 812	Medical Pharmacology 1	3
CCMD 812	Physical Diagnosis and Clinical Integration (PDCI) 2	3
CCMD 813	Neuroscience and Human Behavior	7
CCMD 814	Health Care Ethics	2
CCMD 815	Career and Professional Development Experiences	7
CCMD 816	Public Health	2
MICB 820	Immunity, Infection and Disease (MICRO) 2	4
PALM 820	Mechanisms of Human Disease (PATH) 2	7
PCOL 820	Medical Pharmacology 2	5
PSIO 820	Principles of Medical Physiology	5
CCMD 821	Physical Diagnosis and Clinical Integration (PDCI) 3	5
CCMD 823	Problem Based Learning 2	3
CCMD 824	Comprehensive Basic Medical Science Exam	3
CCMD 825	United States Medical Licensing (USMLE) Step 1 Prep	6
BMP 830	Clinical Clerkship in Psychiatry	6
FMED 830	Clinical Clerkship in Family Medicine	8
MED 830	Clinical Clerkship in Internal Medicine	8

NEUR 830	Clinical Clerkship in Neurology	2
OBST 830	Clinical Clerkship in Obstetrics & Gynecology	8
PEDI 830	Clinical Clerkship in Pediatrics	8
SURG 830	Clinical Clerkship in Surgery	8
CCMD Electives		20
CCMD 841	Electives	
CCMD 842	Hospital Care	4
CCMD 843	Anesthesiology Clerkship	2
CCMD 844	Critical Care Clerkship	2
CCMD 845	USMLE Step-2 Clinical Knowledge Examination	2
CCMD 847	Clinical Performance Examination	1
CCMD 848	Rural Health	4
Total Hours		174

FIRST YEAR CURRICULUM

The first-and second-year of the curriculum is characterized as the pre-clerkship phase of the curriculum. The first-year curriculum includes fall, spring and summer terms that total to approximately 53 hours of academic credit. There are approximately 22 scheduled instructional contact hours per week. Students must take courses in a specific order.

The fall term includes CCMD 801 Medical Biochemistry and Cellular Function (integration of biochemistry and genetics), PALM 801 Human Structure (integration of human anatomy and histology), CCMD 811 Physical Diagnosis and Clinical Integration (PDCI) 1 and CCMD 802 Professional Development, which includes a full week of professional development activities designed to help students transition into the medical school curriculum.

The spring term includes an introduction to the foundation of several basic sciences and begins aligning content areas across organ systems, starting with the nervous system. Students enroll in several courses, including MICB 812 Immunity, Infection and Disease 1, PALM 812 Mechanisms of Human Disease 1, PCOL 812 Medical Pharmacology 1, CCMD 812 Physical Diagnosis and Clinical Integration (PDCI) 2, CCMD 813 Neurosciences and Human Behavior, CCMS 814 Health Care Ethics, and CCMD 803 Problem-based Learning.

The summer term includes two courses: CCMD 815 Career and Professional Development Experience and CCMD 816 Public Health.

SECOND YEAR CURRICULUM

Medical students' second academic year includes a fall and spring term. There are approximately 22 scheduled instructional contact hours per week. Students must take courses in a specific order. The fall term is a unique term, which stretches into the early spring term. The fall term includes approximately 22 week of instruction, which continues to align courses' content across organ systems. This term includes MICB 820 Immunity, Infection and Disease (microbiology) 2, PALM 820 Mechanisms of Human Disease (pathology) 2, PCOL 820 Medical Pharmacology 2, PSIO 820 Physiology, CCMD 821 Physical Diagnosis and Clinical Integration (PDCI) 3, and CCMD 823 Problem-based Learning.

The spring term is designed to prepare students to complete the first step to being a licensed physician: the United States Medical Licensing Examination (USMLE) Step 1. Students are enrolled in CCMD 824 Basic Science Medical Examination, which includes a standardized exam prepared by the National Board of Medical Examiners (NBME). Students engage in approximately 2 weeks of self-directed learning to prepare for the examination. After completing this exam, students are given a profile and a report to help develop a study plan that targets knowledge gaps prior to taking the USMLE Step 1 licensure exam. Students also enroll in CCMD 825 Step Prep, which includes approximately 3-5 weeks of self-directed study time to prepare and pass the USMLE Step 1 examination.

THIRD AND FOURTH YEAR CURRICULUM

The third-year and fourth-years of the curriculum are characterized as the "clerkship phase of the curriculum," which include required clerkships and elective clinical rotations across 82 weeks of instruction. Students must earn passing grades in all first- and second-year courses, including a passing designation on USMLE Step 1, to enroll in clerkships and clinical rotation electives. While some required clerkships and rotation electives have prerequisites, students may complete the clerkships and clinical rotations in a variety of orders. Students must complete the following required clerkships in any order: MED 830 Internal Medicine (8 weeks), SURG 830 Surgery (8 weeks), BMP Psychiatry (6 weeks), PEDI 830 Pediatrics (8 weeks), FMED 830 Family Medicine (8 weeks), NEURO 830 Neurology, OBST 830 Obstetrics and Gynecology (8 weeks). Students who graduate in May must complete all required clerkships by August 30th of the fourth-year curriculum, allowing enough time to figure the clerkship narratives into the Medical Student Performance Evaluation (MSPE). The MSPE is a required component of residency applications. Students must earn a passing grade on all required clerkships prior to completing CCMD 845 USMLE Step 2 Clinical Knowledge (CK) (2 weeks), CCMD 847 CPX Exam, CCMD 842 Subl Hospital Care (4 weeks) and CCMD 844 Critical Care and ICU (2 weeks). Students may also complete CCMD 843 Anesthesiology (2 weeks), CCMD 848 Rural/Community-based Care (4 weeks) during the fourth-year of the curriculum. CCMD 841 Electives (20 weeks) includes rotations that may or may not have prerequisites. A catalog is available online that lists the approved electives (<http://medicine.hsc.wvu.edu/ms4catalog/>) across the three clinical campuses..

SUGGESTED PLAN OF STUDY***First Year**

Fall	Hours	Spring	Hours	Summer	Hours
CCMD 801		8 MICB 812		4 CCMD 815	7
PALM 801		7 PALM 812		3 CCMD 816	2
CCMD 811		5 PCOL 812		3	
CCMD 802		1 CCMD 803		1	
		CCMD 812		3	
		CCMD 813		7	
		CCMD 814		2	
		21		23	9

Second Year

Fall	Hours	Spring	Hours	Summer	Hours
MICB 820		4 CCMD 824		3 MED 830	8
PALM 820		7 CCMD 825		6 SURG 830	8
PCOL 820		5			
PSIO 820		5			
CCMD 821		5			
CCMD 823		3			
		29		9	16

Third Year

Fall	Hours	Spring	Hours	Summer	Hours
BMP 830		6 FMED 830		8 CCMD 841	4
NEUR 830		2 OBST 830		8 CCMD 842	4
PEDI 830		8		CCMD 843	2
				CCMD 845	2
				CCMD 847	1
		16		16	13

Fourth Year

Fall	Hours	Spring	Hours		
CCMD 841		8 CCMD 841		8	
CCMD 844		2 CCMD 848		4	
		10		12	

Total credit hours: 174

*This is a Suggested Plan of Study. Sequence may vary depending on student.

Major Learning Outcomes**MEDICINE**

Medical Knowledge: Demonstrate knowledge of established and evolving biomedical, clinical, epidemiological and social-behavioral sciences, and apply this knowledge to patient care.

Graduating Students of the WVUSOM program will be able to:

- Describe the normal structure, development, function, and relationships among the organ systems of the human body.
- Describe the role of biochemical, physiological, neurological and immunological mechanisms in maintaining homeostasis.
- Describe and recognize normal and abnormal psychosocial development and cognitive function across the human lifespan.
- Describe the alterations of structure and function or organ systems and tissues that characterize disease (e.g., genetic, developmental, environmental, nutritional, toxic, infectious, inflammatory, neoplastic, degenerative, traumatic, and behavioral).
- Describe foundations of diagnostic methods, therapeutic interventions, and prevention with respect to specific disease processes in individuals and populations.
- Describe genetic and physiologic basis of individual patient responses to medical therapeutics.
- Describe and apply foundational principles of epidemiology, statistics, and ethics to the diagnosis and treatment of disease.

- Explain the effect of social determinants, nutrition, health behaviors, and preventive measures on health status and disease of individuals and populations.
- Describe the scientific method and demonstrate a critical and ethical evaluation of basic, epidemiological, clinical and translational research findings and their application to societal problems and acute, chronic, rehabilitative, end-of-life and primary care.

Patient Care: Provide patient care that is compassionate, appropriate, and effective.

Graduating Students of the WVUSOM program will be able to:

- Gather and interpret a complete and appropriately organized medical history, which incorporates cultural features for comprehensive patient care.
- Perform accurate, relevant, comprehensive and focused physical and mental status examinations.
- Gather, interpret, and prioritize information for patients requiring urgent or emergent care and initiate appropriate critical interventions.
- Select and interpret appropriate physical examination findings, diagnostic tests, laboratory tests, ultra sonographic imaging and standard imaging studies to formulate a complete and accurate differential diagnosis.
- Develop patient treatment and management plans that are evidenced-based and consider cultural, ethnic and individual patient preferences for shared decision-making.
- Counsel and educate patients and their families about prevention strategies, diagnostic tests, prognostic data, treatment options/plans, evidenced-based literature and patient orders/prescriptions.
- Provide patient care that is compassionate, safe, appropriate, and effective for the treatment of health problems.
- Perform basic medical procedures appropriately and professionally.
- Employ opportunities for early interventions to educate patients about disease prevention strategies taking into account barriers to change.
- Collaborate with an interprofessional team to provide preventive, acute, chronic, rehabilitative, and end-of-life care that is patient-focused and cost-effective.

Interpersonal and Communication Skills: Demonstrate interpersonal and communication skills that result in the effective exchange of information and collaboration with patients, their families, peers, and health professionals.

Graduating Students of the WVUSOM program will be able to:

- Communicate effectively and demonstrate caring and respectful behaviors with patients and families across a broad range of health literacy, socioeconomic and cultural backgrounds.
- Create and sustain a therapeutic and ethically sound relationship with patients and their families.
- Explain the key elements of informed consent to patients and their families, including the indications, contraindications, risks, benefits, alternatives, and potential complications of interventions and procedures.
- Provide and interpret accurate, prioritized, relevant and complete oral presentations of a patient encounter to effectively transition patient care.
- Demonstrate effectively the following communication skills to maintain a professional and safe healthcare environment: negotiation of conflicts within a healthcare team and maintain respect for all members of a healthcare team.
- Communicate timely, accurate, relevant, complete, succinct and confidential documentation of clinical encounters and patient transitions in written or electronic format.

Practice-Based Learning and Improvement: Demonstrate the ability to investigate and evaluate their role in the care of patients, to appraise and assimilate scientific evidence, and to continuously improve their contributions to patient care based through reflective and self-directed learning.

Graduating Students of the WVUSOM program will be able to:

- Locate, evaluate and assimilate evidence from scientific studies including basic, epidemiological, clinical, and translational-based research.
- Apply knowledge of study designs and statistical methods to appraise evidenced-based literature.
- Use information technology appropriately to manage information and support patient care decisions.
- Demonstrate lifelong and self-directed learning by analyzing strengths, identifying learning needs, and incorporating feedback in reflective learning to improve all six core competencies.

Systems-Based Practice: Demonstrate an awareness of and responsiveness to the larger context and system of health care, as well as the ability to learn about other resources in the system to promote optimal health care.

Graduating Students of the WVUSOM program will be able to:

- Describe the larger context and system of healthcare and identify how physicians may take a leadership role in its development.
- Demonstrate the ability to evaluate and mobilize resources, interpret extant and emerging policies, and identify forces in the healthcare system that influence disparities in health, access to healthcare and promotion of optimal healthcare.
- Define the roles of healthcare professionals and demonstrate how interprofessional collaboration improves patient safety, patient-centered outcomes, and system performance.

- Describe and distinguish effective methods of organizing, financing, and providing healthcare.
- Describe how the prevention and treatment of healthcare disparities may affect individual patients, populations, and the healthcare system.
- Recognize system limitations and failures, and identify ways to report patient safety concerns and potential solutions in a timely manner.

Professionalism: Demonstrate a commitment to carrying out professional responsibilities and an adherence to ethical principles.

Graduating Students of the WVUSOM program will be able to:

- Demonstrate respect, compassion, integrity, and responsiveness in all interactions with interprofessionals, colleagues, patients and their families and society.
- Demonstrate a commitment to ethical principles, including provision or withholding of care, confidentiality, informed consent, and respect for patient privacy and autonomy.
- Demonstrate sensitivity and responsiveness to a diverse patient population, including but not limited to diversity in culture, national origin, age, gender, race, religion, disabilities, sexual orientation, veteran status and health.
- Create and sustain a therapeutic and ethically sound relationship with patients.
- Demonstrate the qualities and practices required to maintain personal wellness and resilience while pursuing lifelong learning and professional growth.
- Demonstrate honesty, timeliness, punctuality, integrity and accountability in the process of learning and completing professional and clinical responsibilities.
- Demonstrate a commitment to uphold and sustain the WVUSOM Code of Professionalism.