



PREPARING TO APPLY

MCAT PREPARATION

THE BASICS

- **Who** takes it? Students applying to allopathic (MD) and osteopathic (DO) medical programs. Some postbac programs also require a MCAT score.
- **What** is it? A 6.25 hour, computer-based test divided into four sections (described below).
- **When?**
 - Only after adequate preparation via coursework, content review, and practice exams.
 - Within three calendar years of planned matriculation; e.g., a 2020 MCAT will be valid for matriculation at most schools through the Fall of 2023.¹
 - See below for more details.
- **Where?** Designated testing centers in the US, Canada, and select international sites.
- **Why?** To provide admissions committees with a data point that will provide insight on applicant academic preparation for medical school. This is one of many components that are evaluated holistically.
- **How?**
 - [Register online](#) in October for January-June test dates and in February for July-September test dates.
 - The exam costs \$315 during regular registration. Students with financial need should apply for the [AAMC Fee Assistance Program](#) 2-3 weeks prior to desired registration.

CONTENT

The MCAT is divided into four sections. **Scientific inquiry and reasoning skills** are applied in three sections, and ten distinct **foundational concepts** are tested. They are listed in the order in which you will encounter them on test day.

Section I: Chemical & Physical Foundations of Biological Systems	Section II: Critical Analysis & Reasoning Skills (CARS)	Section III: Biological & Biochemical Foundations of Living Systems	Section IV: Psychological, Social & Biological Foundations of Behavior
59 total questions 10 passages with questions 15 discrete questions	53 total questions 9 passages with questions	59 total questions 10 passages with questions 15 discrete questions	59 total questions 10 passages with questions 15 discrete questions
95 minutes	90 minutes	95 minutes	95 minutes
Foundational Concepts 4-5	Reading passages from various disciplines; no specific subject study required.	Foundational Concepts 1-3	Foundational Concepts 6-10
33% General Chemistry 15% Organic Chemistry 25% Biochemistry 25% Physics 2% Biology		65% Biology 25% Biochemistry 10% Chemistry	60% Psychology 30% Sociology 10% Biology
Scientific Inquiry and Reasoning Skills required for Sections I, III, IV			
Knowledge of Scientific Concepts and Principles Reasoning about the Design and Execution of Research		Scientific Reasoning and Problem Solving Data-Based and Statistical Reasoning	

¹ For more data regarding med school policies, see students-residents.aamc.org/applying-medical-school/article/how-long-are-scores-valid/

FOUNDATIONAL CONCEPTS & SCIENTIFIC INQUIRY AND REASONING SKILLS

MCAT content is meant to emphasize acquiring deep knowledge of science concepts, making connections between knowledge across disciplines, and applying **scientific knowledge with scientific inquiry and reasoning skills** (see above). The exam organizes requisite knowledge around ten **foundational concepts**:

1. Biomolecules have unique properties that determine how they contribute to the structure and function of cells, and how they participate in the processes necessary to maintain life.
2. Highly-organized assemblies of molecules, cells, and organs interact to carry out the functions of living organisms.
3. Complex systems of tissues and organs sense the internal and external environments of multicellular organisms, and through integrated functioning, maintain a stable internal environment within an ever-changing external environment.
4. Complex living organisms transport materials, sense their environment, process signals, and respond to changes using processes understood in terms of physical principles.
5. The principles that govern chemical interactions and reactions form the basis for a broader understanding of the molecular dynamics of living systems.
6. Biological, psychological, and socio-cultural factors influence the ways that individuals perceive, think about, and react to the world.
7. Biological, psychological, and socio-cultural factors influence behavior and behavior change.
8. Psychological, socio-cultural, and biological factors influence the way we think about ourselves and others.
9. Cultural and social differences influence well-being.
10. Social stratification and access to resources influence well-being.

Within each foundational concept, more specific content categories detail the topics and subtopics addressed. These are described on the AAMC website: students-residents.aamc.org/applying-medical-school/article/understand-mcat-exam/

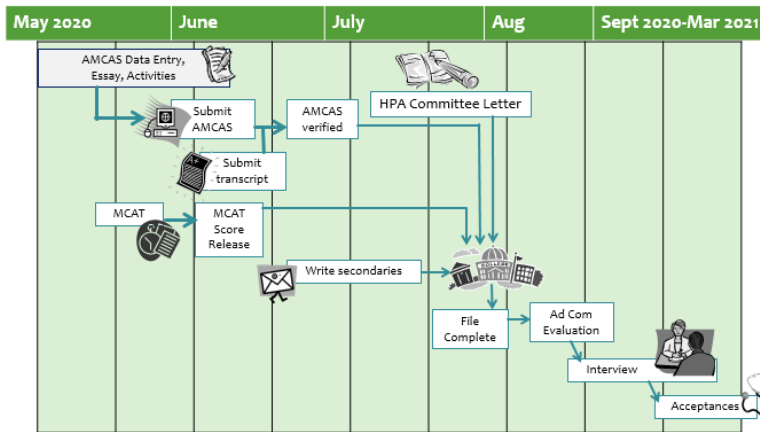
PREPARATION

- **Coursework:** The premedical prerequisites (biology, general chemistry, organic chemistry and physics, biochemistry) will provide a solid scientific foundation. Various Psychology and Sociology courses will address concepts on the MCAT, but no specific, single course is recommended.
- **Content Review:**
 - The AAMC is the official test administrator and their materials will most closely simulate the actual exam. students-residents.aamc.org/applying-medical-school/taking-mcat-exam/prepare-mcat-exam/free-planning-and-study-resources/
 - Numerous test preparation companies will vie for your business. Compare factors including: cost; duration; type of instruction (online, in person, group, individual); amount of personalized support; nature of prep books; access to question banks and practice tests; amount of focus on strategies vs. content.
 - Many companies' prep materials are available for comparison shopping or to borrow in the HPA Library.
 - It is possible to prepare on your own without a class by creating a structured study plan with ample time to prepare, including content review and use of practice questions and full-length exams.
 - AAMC How to Create a Study Plan: offers.aamc.org/mcat-study
- **Practice Tests:**
 - Most students take a diagnostic test early in their test prep to gain familiarity with the content and format, then use additional practice exams to guide their continued content review.
 - Our applicants report taking an average of 8-10 practice exams. Take exams until you feel that your scores are stabilizing in a range that will make you competitive for schools of interest.
 - AAMC Full length exams and practice questions: students-residents.aamc.org/applying-medical-school/article/online-practice-mcat-exam
 - Many prep companies offer free practice opportunities that are shared through their email listservs. HPA also passes on their information in the *Vitals* newsletter.

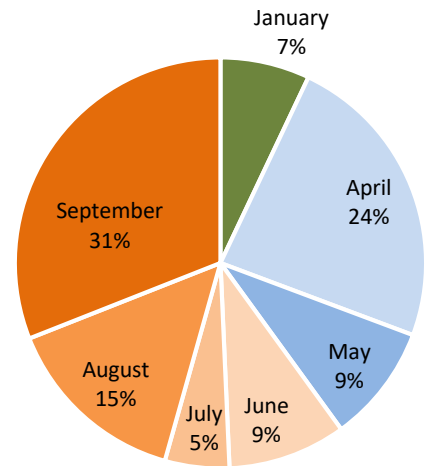
MCAT AND APPLICATION TIMING

- The MCAT is offered in January and March through September.
- Medical school interview invitations are offered on a rolling basis—applying early means a higher likelihood of interviews and acceptances. The MD application (called the AMCAS) opens in May with earliest submission at the beginning of June. MCAT scores are released approximately one month after the exam. **To know your score before you submit your application, take the MCAT by early May of your application year.**

IDEAL APPLICATION TIMELINE



PRINCETON EXAMINEE TIMING



- Applicants who opt to take the MCAT later than early May of the application year should still submit the application in early June. Application processing takes four to eight weeks. The application verification process does not require an MCAT score, so the application can be processed prior to score release.

PROS AND CONS OF MCAT DATES

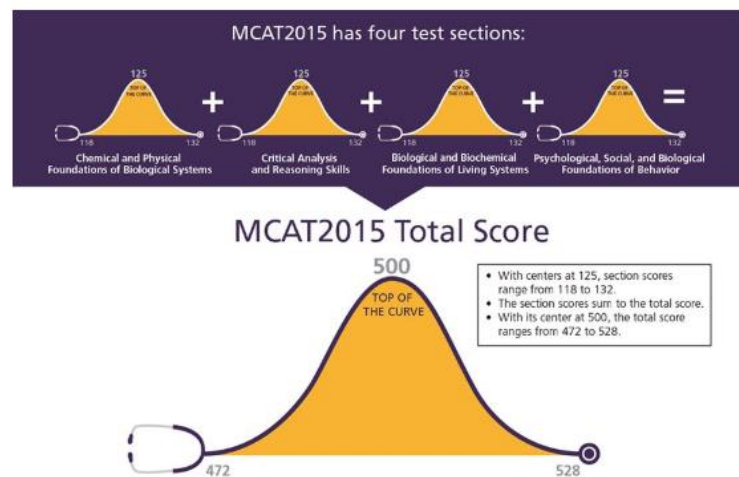
See [MCAT Calendar, Scheduling Deadlines, and Score Release Dates Online: aamc.org/mcat](https://www.aamc.org/mcat)

TIMING	PROS	CONS
June through September in year(s) prior to application	<ul style="list-style-type: none"> • Scores available before application submission. • Having fewer time commitments in the summer allows more time to focus on studying. • Easy to manage other aspects of application because studying is done early. • Time to restudy and retake if needed and still be early in application cycle. 	<ul style="list-style-type: none"> • Need to finish prerequisite courses by end of academic year. • May affect research, internship, or other summer plans.
January through early May of application year	<ul style="list-style-type: none"> • Scores available before application submission. • Easy to manage other aspects of application because studying is done early. • Time to restudy and retake if needed. 	<ul style="list-style-type: none"> • Must juggle MCAT study with classes and activities. • May coincide with final exams and other academic deadlines.

TIMING	PROS	CONS
Mid May through early June of application year	<ul style="list-style-type: none"> More time to study, including some after final exams end. 	<ul style="list-style-type: none"> Must juggle MCAT study with finals and completing application(s). Application should be submitted before MCAT score release for best outcomes. Restudy/retake time (July/August) would coincide with writing secondary applications.
June or July of application year	<ul style="list-style-type: none"> Time to focus on studying after classes have ended. 	<ul style="list-style-type: none"> May be difficult to focus on MCAT study so soon after classes and final exams. Must juggle MCAT study with completing primary (AMCAS) and secondary applications. Application should be submitted before MCAT score release for best outcomes. Not enough time to restudy and retake in timely manner for this application cycle.

MCAT SCORING

Each of the four sections is scored from a low of 118 to a high of 132. The scores are combined to create a total score that will range from 472-528. Scores are reported along with percentile ranks that reflect information about your score relative to the scores of other examinees – a total score of 500 will be at or near the 50th percentile rank. Nationally, the average total score for matriculants to US medical schools in 2018 was 511 (83rd percentile).²



students-residents.aamc.org/applying-medical-school/article/mcat-exam-score-scale/

ADDITIONAL RESOURCES

- How I studied for the MCAT student examples:
 - students-residents.aamc.org/applying-medical-school/taking-mcat-exam/how-i-prepared-mcat-exam/
 - leah4sci.com/category/mcat-medical-college-admissions-test/mcat-exam-feedback-mcat-medical-college-admissions-test/
- HPA Peer Adviser tips: hpa.princeton.edu/faqs/mcat-faq#MCAT-Tips

² www.aamc.org/data-reports/students-residents/interactive-data/2018-facts-applicants-and-matriculants-data

