

UMBC Pre-Medical Requirements

The PreMedical and PreDental Advising Office
 PreMedical ♦ PreDental ♦ PreOptometry ♦ PrePodiatry ♦ PreVeterinary
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Common Medical School Requirements	UMBC Course Recommendations to fulfill Medical School Requirements	UMBC Course Title	Number of Credits at UMBC
Two semesters of Biology with labs	BIOL 302	Molecular & General Genetics	4.0 credits
	BIOL 303	Cell Biology	4.0 credits
	Choose <u>two</u> labs from the list below: BIOL 300 Lab and either: BIOL 302 Lab or BIOL 303 Lab	Experimental Biology Lab (BIOL 300 Lab is a prerequisite for BIOL 302 and 303 Lab) Genetics Lab or Cell Biology Lab	2.0 lab credits 2.0 lab credits 2.0 lab credits
Two semesters of Inorganic/General Chemistry with labs	CHEM 101	Principles of Chemistry I	4.0 credits
	CHEM 102	Principles of Chemistry II	4.0 credits
	CHEM 102 Lab	Introductory Chemistry Lab	2.0 lab credits
Two semesters of Organic Chemistry with labs	CHEM 351	Organic Chemistry I	3.0 credits
	CHEM 351 Lab	Organic Chemistry Laboratory I	2.0 lab credits
	CHEM 352	Organic Chemistry II (Spring/Summer only)	3.0 credits
	CHEM 352 Lab	Organic Chemistry Laboratory II (Spring/Summer only)	2.0 lab credits
One semester of Biochemistry (no lab)	BIOL 430	Biological Chemistry	4.0 credits
	or CHEM 437	or Comprehensive Biochemistry I (Fall only)	4.0 credits

One semester of Psychology*	PSYC 100	Introduction to Psychology	4.0 credits
One semester of Sociology*	SOCY 101	Basic Concepts in Sociology	3.0 credits
Two semesters of Physics with labs	<p><u>Option 1 (preferred)</u></p> <p>PHYS 111 PHYS 112</p> <p>or</p> <p><u>Option 2</u></p> <p>PHYS 121 PHYS 122 + [PHYS 111 or PHYS 122 Lab]</p>	<p>Selection depends on a student's declared major, although the 111/112 sequence is preferred.</p> <p><u>Option 1</u> (Combines the lecture and lab credit required by professional schools.)</p> <p>Basic Physics I Basic Physics II (may conflict with CHEM 352L)</p> <p>or</p> <p><u>Option 2</u> (Lab credit is earned either via PHYS 111 or PHYS 122Lab)</p> <p>Introductory Physics I Introductory Physics II + [Basic Physics I (combined lecture+lab) or Introductory Physics Laboratory]</p>	<p>4.0 credits 4.0 credits</p> <p>4.0 credits 4.0 credits + [4.0 credits or 3.0 credits]</p>
Two semesters of English	<p>ENGL 100 and A second ENGL-prefix course.</p>	<p>Composition and A second ENGL-prefix course All courses must have the ENGL-prefix Examples: ENGL 206, 210, 226, 231, 232, 233, 241, 243,250, 260, 261, 271, 273, 281, 291, 301, 315, 380, 382, 383, 391, 393</p> <p>This list is not exhaustive. Please see the UMBC course catalog for the entire list of ENGL-prefix courses</p>	<p>3.0 credits 3.0 credits</p>

1-2 semesters of Math/Calculus **	<p>Choose <u>one</u> course from the list below:</p> <p>MATH 155 or MATH 151</p>	<p>Math selections depend on math placement exam results and a student's declared major.</p> <p>Applied Calculus I or Calculus & Analytic Geometry I</p>	<p>4.0 credits 4.0 credits</p>
0-1 semester of Statistics***	<p>Choose <u>one</u> course from the list below:</p> <p>STAT 121 or STAT 350</p>	<p>Selection depends on a student's declared major.</p> <p>Intro to Statistics for the Social Sciences or Statistics with Applications in the Biological Sciences</p>	<p>4.0 credits 4.0 credits</p>

Required courses may have prerequisites. Carefully review prerequisites for courses in the course descriptions found in the UMBC [catalog](#).

* Psychology and sociology courses are required by some medical schools. Introductory courses in these disciplines are recommended for MCAT preparation.

** Math requirements vary among medical schools. Few schools may require two semesters of calculus. Carefully review the admissions requirements of individual medical schools.

*** STAT 351 or STAT 355 may also fulfill the statistics requirement, if required by a medical school.

Transfer students may already have completed pre-medical courses at other institutions and therefore can use those previous courses toward fulfilling the minimum requirements of medical schools. Medical schools evaluate transcripts of all colleges attended and will look at the original course when determining if a student fulfills the minimum requirements.

Admission requirements vary among medical schools and therefore, it is a student's responsibility to research the admissions criteria of the medical schools to which they will be applying. The Association of American Medical Colleges (AAMC, www.aamc.org) provides information on various medical school requirements. The AAMC annually publishes the [Medical School Admission Requirements](#) (MSAR), a comprehensive source for medical school admissions information. Students may purchase access to the MSAR from AAMC or log onto each individual medical school's website for detailed information about each school's admission requirements.

NOTE: The science, statistics, and social science prerequisite courses must be completed before a student takes the Medical College Admission Test (MCAT). UMBC pre-medical students are required to take the MCAT by the end of April if participating in the Health Professions

Evaluation Committee (HPEC); the April that precedes the summer during which they will submit their AMCAS application. Please see the office [website](#) for more detailed information about UMBC's pre-health committee's requirements and recommended MCAT study and completion timelines.

Current UMBC students are encouraged to join the Pre-Medical Society myUMBC group.

The MCAT Study Phase

Approximately 3-6 months before test date; preparation time varies among individuals.

Although MCAT study technically begins with the first science prerequisite course as students master prerequisite course content, the MCAT Study Phase begins as students are taking the final prerequisite courses. It continues through the completion of the prerequisite courses that cover material tested on the MCAT, until the student determines that they are sufficiently prepared for the exam.

The time required to sufficiently prepare for the MCAT varies widely due to an individual's existing knowledge base, aptitude, study skills, and the study timetable that work best for the individual. According to the 2018 Post-MCAT Questionnaire, 26% of respondents studied 0-8 weeks; 27% studied 9-12 weeks; 19% studied 13-16 weeks; 28% studied more than 16 weeks. Additionally, 21% studied 0-10 hours per week; 28% studied 11-20 hours per week, 22% studied 21-30 hours per week; 29% studied more than 30 hours per week. Beginning preparation and establishing a study plan early will allow time to adjust as needed. The AAMC provides information on preparing for the MCAT [here](#).

Students should only take the MCAT exam when they are fully prepared. "Trialing" the MCAT is never recommended. Medical school admissions offices will have access to exam scores each time that the exam is taken. Additionally, the MCAT may only be taken up to three times in a single testing year, up to four times during two consecutive years, and up to seven times in a lifetime ([source](#)). Statistics show that scores on second attempts of the MCAT rarely produce significant increases ([source](#)). Therefore, adequate and sufficient preparation for the first (and hopefully only) attempt at the MCAT is strongly recommended.