

# UMBC Pre-Optometry Requirements

## The PreMedical and PreDental Advising Office

PreMedical ♦ PreDental ♦ PreOptometry ♦ PrePodiatry ♦ PreVeterinary

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<u>Common Optometry School Requirements</u>	UMBC Course Recommendations to Fulfill Optometry 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
	<b>Choose two labs from the list below:</b>  BIOL 300 Lab <b>and either:</b>  BIOL 302 Lab <b>or</b> BIOL 303 Lab	Experimental Biology Lab (BIOL 300 Lab is a prerequisite for BIOL 302 and 303 Lab)  Genetics Lab <b>or</b> 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 CHEM 102 Lab	Principles of Chemistry II Introductory Chemistry Lab	4.0 credits 2.0 lab credits
1-2 semesters of Organic Chemistry with labs	CHEM 351 CHEM 351 Lab	Organic Chemistry I Organic Chemistry Laboratory I	3.0 credits 2.0 lab credits
	CHEM 352* CHEM 352 Lab*	Organic Chemistry Laboratory II (Spring/Summer only) Lab (Spring/Summer only)	3.0 credits 2.0 lab credits

One semester of Biochemistry (no lab)	BIOL 430	Biological Chemistry*	4.0 credits
	<b>Or</b> CHEM 437	Comprehensive Biochemistry I (Fall only)	4.0 credits
One semester of Psychology	PSYC 100	Introduction to Psychology	4.0 credits
Two semesters of Physics with labs	<b><u>Option 1 (preferred)</u></b>	<b>Selection depends on a student's declared major, although the 111/112 sequence is preferred.</b> <b><u>Option 1</u></b> (Combines the lecture and lab credit required by professional schools.)	
	PHYS 111 PHYS 112  <b>or</b> <b><u>Option 2</u></b> PHYS121 PHYS122 + [PHYS 111 or PHYS 122Lab]	Basic Physics I Basic Physics II  <b>or</b> <b><u>Option 2</u></b> (Lab credit is earned either via PHYS 111 or PHYS 122Lab) Introductory Physics I Introductory Physics II + [Basic Physics I (combined lecture+lab) or Introductory Physics Laboratory]	4.0 credits 4.0 credits  4.0 credits 4.0 credits + [4.0 credits or 3.0 credits]
Two semesters of English	ENGL 100 <b>and</b> A second ENGL-prefix course.	Composition <b>and</b> 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  This list is not exhaustive. Please see the UMBC course catalog for the entire list of ENGL-prefix courses	3.0 credits  3.0 credits
	One semester of Calculus	<b>Selection depends on math placement exam results and a student's declared major.</b> MATH 155 Applied Calculus I	4.0 credits

	<b>or</b> MATH 151	<b>or</b> Calculus & Analytic Geometry I	4.0 credits
One semester of Statistics	<b>Choose <u>one</u> course from the list below:</b>  STAT 121 <b>or</b> STAT 350	<b>Selection depends on a student's declared major.</b>  Intro to Statistics for the Social Sciences <b>or</b> Statistics with Applications in the Biological Sciences	4.0 credits  4.0 credits
One semester of Microbiology with lab	BIOL 375 + BIOL 273Lab	General Microbiology + Microbiology Lab	3.0 credits  2.0 credits
1-2 semesters of Anatomy & Physiology**	BIOL 251 + BIOL 252	Human Anatomy and Physiology I  Human Anatomy and Physiology II	3.0 credits  3.0 credits

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

\* Most programs require only one semester of Organic Chemistry. Salus University of Pennsylvania College of Optometry accepts two semesters of Organic Chemistry with labs or one semester of Organic Chemistry with lab plus one semester of either Biochemistry or Molecular Biology (lab highly recommended).

\*\* According to the [ASCO Prerequisite List](#) (updated 11/22), 17 out of 24 participating schools of optometry require or strongly recommend anatomy and 18 require or strongly recommend physiology.

Transfer students may already have completed pre-optometry courses at other institutions and therefore can use those previous courses toward fulfilling the minimum requirements of optometry schools. Optometry 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 optometry schools and therefore, it is a student's responsibility to research the admissions criteria of the optometry schools to which they will be applying. The Association of Schools and Colleges of Optometry ([ASCO](#)) provides [information](#) on various optometry school requirements. Students may log onto each individual optometry school's website for detailed information about each school's admission requirements.

Current UMBC students are encouraged to join the Pre-Optometry Society by visiting their [myUMBC group page](#).

The Optometry Admission Test (OAT) covers Biology, General Chemistry, Organic Chemistry, Physics, Reading Comprehension, and Quantitative Reasoning. More information about the OAT may be found on the OAT website [here](#).