

# UMBC Pre-Dental Requirements

The PreMedical and PreDental Advising Office, University Center 116

PreMedical ♦ PreDental ♦ PreOptometry ♦ PrePodiatry ♦ PreVeterinary

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UMBC Course Equivalents of Dental School Requirements	UMBC Course Title	Number of Credits at UMBC
BIOL 302	Molecular & General Genetics	4.0 credits
BIOL 303	Cell Biology	4.0 credits
	<b>Transfer students may already have completed pre-dental courses at other institutions and therefore can use those previous courses toward fulfilling the minimum requirements of dental schools. Dental schools evaluate transcripts of all colleges attended and will look at the original course when determining if a student fulfills the minimum requirements.</b>	
<b>Choose two labs from the list below:</b>		
BIOL 300 Lab	Experimental Biology Lab	2.0 lab credits
BIOL 302 Lab	Genetics Lab	2.0 lab credits
<b>or</b>	<b>or</b>	
BIOL 303 Lab	Cell Biology Lab	2.0 lab credits
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
CHEM 351	Organic Chemistry I	3.0 credits
CHEM 351 Lab	Organic Chemistry I Lab	2.0 lab credits
CHEM 352	Organic Chemistry II (Spring/Summer only)	3.0 credits
CHEM 352 Lab	Lab (Spring/Summer only)	2.0 lab credits
BIOL 430	Biological Chemistry	4.0 credits
<b>or</b>	<b>or</b>	
CHEM 437	Comprehensive Biochemistry I (Fall only)	4.0 credits
PSYC 100**	Introduction to Psychology**	4.0 credits

<p><b>Option 1</b> <b>(preferred)</b></p> <p>PHYS 111 PHYS 112</p> <p><b>or</b></p> <p><b>Option 2</b></p> <p>PHYS121 PHYS122 + [PHYS 111 or PHYS 122Lab]</p>	<p><b>Selection depends on a student's declared major, although the 111/112 sequence is preferred.</b></p> <p><b>Option 1</b> (Combines the lecture and lab credit required by professional schools.) Basic Physics I Basic Physics II</p> <p><b>or</b></p> <p><b>Option 2</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]</p>	<p>4.0 credits 4.0 credits</p> <p>4.0 credits 4.0 credits + [4.0 credits or 3.0 credits]</p>
<p>ENGL 100 <b>and</b> A second ENGL-prefix course.</p>	<p>Composition <b>and</b> A second ENGL-prefix course <b>All courses must have the ENGL-prefix</b> 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>Please see the UMBC course catalog for the entire list of ENGL-prefix courses.</p>	<p>3.0 credits 3.0 credits</p>
<p><b>Choose <u>one</u> course from the list below:</b> MATH 155* <b>or</b> MATH 151*</p>	<p><b>Math selections depend on math placement exam results and a student's declared major.</b> Applied Calculus I* <b>or</b> Calculus &amp; Analytic Geometry I*</p>	<p>4.0 credits 4.0 credits</p>
<p><b>Choose <u>one</u> course from the list below:</b></p> <p>STAT 121** <b>or</b> STAT 350**</p>	<p><b>Selection depends on a student's declared major.</b></p> <p>Intro to Statistics for the Social Sciences** <b>or</b> Statistics with Applications in the Biological Sciences**</p>	<p>4.0 credits 4.0 credits</p>
<p>BIOL 275# + BIOL 275Lab#</p>	<p>Microbiology# + Microbiology Lab#</p>	<p>3.0 credits 2.0 credits</p>
<p>BIOL 251# + BIOL 252#</p>	<p>Human Anatomy &amp; Physiology I# + [#Read the note about Howard University!] Human Anatomy &amp; Physiology II#</p>	<p>3.0 credits 3.0 credits</p>

\* According to the 2015-16 ADEA *Official Guide to Dental Schools*, only 11 of the 69 dental schools in the United States require at least one or two semesters of some type of collegiate math course (college math or calculus). At UMBC, students need to complete either MATH 155 or MATH 151 before registering for BIOL 141 and BIOL 142.

\*\* Not often required by most dental schools, but strongly suggested in preparation for professional training.

# Often an admissions requirement or strongly suggested by many dental schools. Not required by the University of Maryland School of Dentistry, but 6.0 credits of Human Anatomy is required by Howard University College of Dentistry. UMBC's BIOL 307 course, is only 3.0 credits of Human Physiology, and does not fulfill Howard University's requirement for 6.0 credits of Human Anatomy.

Transfer students may already have completed pre-dental courses at other institutions and therefore can use those previous courses toward fulfilling the minimum requirements of dental schools. Dental 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 dental schools and therefore, it is a student's responsibility to research the admissions criteria of the dental schools to which they will be applying. The American Dental Education Association (ADEA, [www.adea.org](http://www.adea.org)) provides information on dental school requirements and career information. The ADEA annually publishes the *Official Guide to Dental Schools*, a comprehensive source for dental school admissions information. Students may purchase their own copy of the *Guide* from ADEA or log onto each individual dental school's website for detailed information about each school's admission requirements.

NOTE: The biology, inorganic/general chemistry, and organic chemistry science prerequisite courses must be completed before a student takes the Dental Admission Test (DAT). Most UMBC pre-dental students take the DAT during the summer, a year in advance of their expected matriculation into dental school. For example, if a student expects to enter dental school in the Fall of 2019, then they would most likely take the DAT in the Summer of 2018, having finished the necessary science courses for the DAT as early as the end of the Spring of 2017 or as late as the end of the Spring of 2018. Please see the office website for recommended DAT study and completion timelines.

Current UMBC students are encouraged to join the Pre-Dental Society. Please check out the UMBC Student Life website for more information, <http://osl.umbc.edu>.

## **The DAT Study Phase**

### **Approximately 15–12 months prior to expected matriculation to dental school**

The DAT Study Phase begins when students are completely finished with the prerequisite biology, inorganic, and organic chemistry courses required by dental schools. Students should be mastering the content of courses as they are taking the classes, so DAT study technically begins with the first science prerequisite course. To keep the timeline as uncomplicated as possible, the DAT Study Phase deals with the time frame after students are finished with the science prerequisite coursework.

Most pre-dental students completely finish the science prerequisites in the Fall or Spring semesters, 21–16 months prior to expected matriculation to dental school. This allows students sufficient DAT study time prior to sitting for the exam. UMBC students who posted competitive DAT scores reported that they studied 8–10 hours per week for a minimum of 15 weeks (the equivalent of one semester) prior to taking the DAT. Individual pathways and study times vary per student. Some students preferred 30 weeks of study time especially if they had a history of difficulty with standardized tests. Each student should approach DAT study with an individualized strategy based on their academic record, mastery of the tested content, and overall test confidence. "Trialing" the DAT is never recommended, leads to poor scores, and makes it very difficult for an applicant to gain admission.