

Biological Sciences, Additional Major

Additional Major and Dual Degree in Biological Sciences

of Undergraduate Studies, Dr. Amanda Willard (awillard@cmu.edu), for questions about double counting. The number of units required for a Dual Degree is 90 more than the total units required by the department requiring the fewer total units. Since Biological Sciences requires 360 units, **the lowest possible minimum for a Dual Degree with Biological Sciences is 450 units.**

Overview

Biological Sciences may be taken as an additional major (also known as a "double major") or as a second degree, with another department granting the primary degree. The rules of the Biological Sciences Department for these two options are distinct, as discussed below. For schedule planning feedback, advising support, and/or sample four year schedules please contact the Biological Sciences Undergraduate Programs Office (bio-ungrad@andrew.cmu.edu).

Curriculum

In order to receive an Additional Major in Biological Sciences, with another department granting the primary degree, all requirements listed below must be fulfilled:

Biological Sciences		Units
03-151	Honors Modern Biology	10
or 03-121	Modern Biology	
03-201	Undergraduate Colloquium for Sophomores	2
03-231	Honors Biochemistry	9
03-320	Cell Biology	9
	*New course number (03-240) starting Fall 2027	
02-250	Introduction to Computational Biology ¹	12
03-220	Genetics	9
	*New course number (03-330) starting Fall 2027	
or 03-221	Genomes, Evolution, and Disease: Introduction to Quantitative Genetic Analysis	
03-343	Experimental Techniques in Molecular Biology	12
03-344	Experimental Biochemistry	12
or 03-345	Experimental Cell and Developmental Biology	
or 03-346	Experimental Neuroscience	
03-411	Topics in Research	1
03-412	Topics in Research	1
03-xxx	Biological Sciences Electives ²	54
Total Biology units		131

¹ This course requires 02-120, 15-110, or 15-112 as a prerequisite.

² Please see description and requirements for electives under the B.S. in Biological Sciences section of this Catalog.

Chemistry		Units
09-105	Introduction to Modern Chemistry I ³	10
or 09-107	Honors Chemistry: Fundamentals, Concepts and Applications	
09-106	Modern Chemistry II	10
09-217	Organic Chemistry I	9
09-218	Organic Chemistry II	9
09-207	Techniques in Quantitative Analysis	9
09-208	Techniques for Organic Synthesis and Analysis	9
Total Chemistry units		56

³ Students who complete 09-107 with an A grade will be exempted from the requirement to take 09-106 Modern Chemistry II.

Minimum number of units required for additional major: 187

Dual Degree

In order to receive a Dual Degree in another subject and Biological Sciences, all requirements of the Biological Sciences degree must be fulfilled. Students may choose to complete the B.A. or the B.S. in Biological Sciences, with or without Tracks. Students must complete all technical and non-technical requirements, and should consult with the Director