

CELL AND MOLECULAR BIOLOGY MINOR

Coordinator: Lisa Morey, PhD

The Cell and Molecular minor is open to students majoring in biology or chemistry. For students seeking employment at the BS level, a Departmental "Letter of Proficiency in Laboratory Skills" may be requested upon completion of the minor. This letter requires enrollment in either BIO 300 or BIO 301.

Minors are an important part of the undergraduate curriculum. If students declare a minor by sophomore year, they can usually complete it in a timely manner. Students should work with their advisor to determine if it is possible that the minor can be completed by graduation.

To receive a minor, a student must complete at least 9 credit hours of coursework distinct from their major(s) and from other minors, and students must complete more than 50% of the coursework required for the minor at Canisius. Please note that "ancillary/supporting" courses required for a major may still count as distinct courses as long as the remaining coursework still meets the 30 credit-hours required for a major. For more information about minor policies, please see the Declaring Majors and Minors (<http://catalog.canisius.edu/undergraduate/academics/student-records/declaring-majors-minors/>) page in the catalog.

Students must select **six courses** from the list below. At least three of the six courses must be taken with a laboratory. Please note that a student may choose to take 3 semesters of BIO 301 in lieu of one of the three required labs.

Code	Title	Credits
3 courses with labs ¹		12
3 additional courses (with or without labs)		9
Total Credits		21

¹ A student may choose to use 3 semesters of BIO 301 in lieu of one of the 3 required labs. In this case, the student would still need to take two courses with labs, 4 courses without labs, and 3 semesters of BIO 301 (for a total of 23 credits).

Cell and Molecular Elective Courses with Laboratories

Code	Title	Credits
BIO 404 & 404L	Genetics and Genetics Laboratory (lab optional)	4
BIO 414 & 414L	Enzymes and Proteins and Enzymes and Proteins Laboratory (lab optional)	4
BIO 419 & 419L	Cell Biology and Cell Biology Laboratory (lab optional)	4
BIO 425 & 425L	Cellular Neurobiology and Cellular Neurobiology Laboratory (lab optional)	4
BIO 426 & 426L	Immunochemistry and Immunochemistry Laboratory (lab optional)	4
BIO 430 & 430L	Advanced Cellular Biochemistry and Metabolism and Advanced Cellular Biochemistry and Metabolism Laboratory (lab optional)	4
BIO 432 & 432L	Developmental Biology and Developmental Biology Laboratory (lab optional)	4

BIO 435 & 435L	Developmental Neurobiology and Develop Neurobiology Laboratory (lab optional)	4
BIO 450 & 450L	Molecular Biology and Molecular Biology Laboratory (lab optional)	4

Cell and Molecular Elective Courses without Labs

Code	Title	Credits
BIO 424	Epigenetics and Disease	3
BIO 444	Cancer Biology	3
BIO 441	Neurobiology of Nervous System Disorders	3