CELLULAR & MOLECULAR BIOLOGY MINOR

The Cellular & Molecular Biology minor will give you broad understanding of the foundational building blocks of all life, making connections between molecules, cells, and tissues, and exploring their functions in healthy and diseased states. The minor curriculum will develop your critical thinking and communication skills, as well as training you in modern laboratory techniques used in the field to prepare you for a multitude of careers in the life sciences, healthcare, education, and beyond. One course in chemistry or biochemistry is required, but there are several options to fulfill this requirement, making this minor accessible to students pursuing many different majors.

Code	Title	Credits
Required Courses		**(12 credits)**
One course from:		*4*
CH-120	General Chemistry I	
CH-112	Survey of Chemistry	
BI-410	Biochemistry I Chemistry majors should take Biochemistry I as BI-410 and count it towards the minor rather than the major.	
BI-141	Intro to Cellular and Molecular Biology	4
BI-203	Genetics	4
Electives - three courses from (including one at the 300 or 400 level):		**(0 credits)**
Microbiology - only one course from this group		
BI-112	Diseases and Mankind	
BI-204	Microbiology	
BI-206	Medical Microbiology	
BI-207	Public Health Microbiology	
Electives		
BI-240	Research Experience	
BI-303	Parasitology	
BI-306	Developmental Biology	
BI-324	Endocrinology	
BI-341	Mycology	
BI-342	Plant Physiology	
BI-344	Soil Biology	
BI-354	Systematics and Evolution	
BI-371	Advanced Topics in Cell and Molecular Biology	
BI-372	Immunology	
BI-375	Virology	
BI-398	Cancer Biology	
BI-410	Biochemistry I	
BT-350	Genomics	
BT-376	Biotechnology	
BT-378	Bioinformatics	
Total Credits		**24**

Or another course approved by the Biology chair

1. Students will be able to describe the structure and functions of biological macromolecules and how they come together to form the structures and perform the fundamental activities of cells.
2. Students will be able to describe the pathways of information flow in cells.
3. Students will be able to relate the behaviors of molecules and cells to features of whole organisms.
4. Students will demonstrate competence in basic cell and molecular biology laboratory skills, including: pipetting, microscopy, cellular fractionation, molecular separation, performing enzymatic reactions, etc.
5. Students will be able to relate their knowledge of cell and molecular biology to topics that are important in everyday life.