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 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 for level): | rom (including one at the 300 or 400 | (0 credits) |
| Microbiology - only one co | urse 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

 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.

- 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.
- 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.