

Genetics Minor

Genetics is a fundamental topic in biology and an important component of many biological disciplines. Montana State University offers a wide variety of genetics courses taught by faculty in four departments (Animal and Range Science, Ecology, Microbiology and Cell Biology, and Plant Sciences and Plant Pathology).

In order to earn a Genetics Minor, a student must take 13 units of required courses and 15 units of elective courses (see below) and must earn a grade of at least C- in every course. Students interested in this minor should consult the genetics advisor within each department to decide whether the Genetics Minor is appropriate for them and to help select specific courses. Course requirements for the Genetics Minor are consistent across all departments.

Required Courses

BIOB 160	Principles of Living Systems	4
or BIOB 260	Cellular and Molecular Biology	
BIOB 375	General Genetics	3
or BIOH 320	Biomedical Genetics	
BIOB 480	Conservation Genetics	3
or BIOB 484	Population Genetics	
or BIOH 420	Molecular Genetics	
STAT 216Q	Introduction to Statistics	3
or BIOB 318	Biometry	

Elective Courses

Choose 15 credits from the following:		15
AGSC 441	Plant Breeding & Genetics (3)	
ANSC 322	Principles of Animal Breeding and Genetics (3)	
BCH 444R	Biochemistry & Molecular Biology Methods (3)	
BIOB 420	Evolution (3)	
BIOB 430	Plant Biotechnology (3)	
BIOB 441	Advanced Eukaryotic Genetics (3)	
BIOB 476R	Gene Construction (4)	
BIOB 477	Genome Science and Gene Expression (5)	
BIOB 480	Conservation Genetics (3 if not taken as a requirement)	
BIOB 484	Population Genetics (3 if not taken as a requirement)	
BIOH 323	Human Developmental Biology (4)	
BIOH 420	Molecular Genetics (3) (If not taken as a requirement)	
BIOH 422	Genes and Cancer (3)	
BIOH 455	Molecular Medicine (3)	
BIOH 465R	Gene Expression Lab: From Genes to Proteins to Cells (3)	
BIOM 410	Microbial Genetics (3)	
BIOM 415	Microbial Diversity, Ecology, and Evolution (3)	
BIOM 435	Virology (3)	
BIOM 450	Microbial Physiology (3)	
BIOM 455R	Research Mthds in Microbiology (4)	
BIOO 435	Plant Systematics (3)	

Total Credits **28**