

Biology (B.S.)

The Biology Department has established a strong instructional and research unit in contemporary biological sciences and will maintain a faculty that is committed to optimizing the pursuit of new knowledge and the discovery of new information through original research and to the communication of specialized information and skills. The department offers both lecture and laboratory courses as well as research opportunities organized around three areas of concentration: Cellular and Molecular Biology, Anatomy and Physiology, and Ecology and Evolutionary Biology.

Freshman Year First Semester

Item #	Title	Credits
	English Writing Course	3
FRSM 001	Freshman Seminar	1
MATH 007	Precalculus	4
BIOL 101	General Biology Lec/Lab	4
CHEM 003	Gen Chemistry I	4
CHEM 005	Gen Chem Lab I	1
	Sub-Total Credits	17

Freshman Year Second Semester

Item #	Title	Credits
	English Writing Course	3
	Math Requirement (Biology Majors)	4
BIOL 102	General Biology Lec/ Lab	4
CHEM 004	Gen Chemistry II	4
CHEM 006	General Chem Lab II	1
	Sub-Total Credits	16

Sophomore Year First Semester

Item #	Title	Credits
BIOL 200	Genetics Lec/Lab	4
CHEM 141	Organic Chemistry I (Lecture)	3
	World Language and Culture Requirement (Options: See Elective 3 Group Descriptions)	
ENGL 009	Tech Writing Pre-Professional	3
SLMC 101	Principles of Speech	3
	Sub-Total Credits	16

Sophomore Year Second Semester

Item #	Title	Credits
	Biology Electives - (4) * (Options: Courses under code BIOL)	4
CHEM 142	Organic Chemistry II	3
CHEM 145	Organic Chem Lab	3
	World Language and Culture Requirement (Options: See Elective 3 Group Descriptions)	3
	Humanities/Soc. Sci. Elective	3
	Sub-Total Credits	16

Junior Year First Semester

Item #	Title	Credits
	Biology Elective (3crs) *	3
PHYS 001	General Physics Lec-Rec-Lab I	5
	World Language and Culture Requirement (Options: See Elective 3 Group Descriptions)	3
	Humanities/Soc. Sci. Elective	3
	Sub-Total Credits	14

Junior Year Second Semester

Item #	Title	Credits
	Biology Electives	4
PHYS 002	General Physics Lec-Rec-Lab II	5
	Humanities/Soc. Sci. Elective	3
	General Elective (Options: To be determined in consultation with advisor) (3)	3
	Sub-Total Credits	15

Senior Year First Semester

Item #	Title	Credits
	Physical Education	1
	Biology Requirement (4)	4
	Biology Electives - (4) * (Options: Courses under code BIOL)	4
BIOL 493	Senior Seminar	1
	Experiential Learning	3
	Sub-Total Credits	13

Senior Year Second Semester

Item #	Title	Credits
	Health Education Requirement (Options: Courses under subject code HHPL)	1
	Innovative Learning Requirement	3
	Biology Elective (3crs) *	3
	African Diasporic Cluster	3
	Humanities/Soc. Sci. Elective	3
	Sub-Total Credits	13
	Total credits:	120

Category Descriptions

English Writing Course

ENGW 101, 102, or 104 First Semester

ENGW 103 or 105 Second Semester

Math Requirement (Biology Majors)

MATH 009	Intro to Statistics	4
MATH 156	Calculus I	4
BIOL 430	Biostatistics Lec/Lab	4

World Language and Culture Requirement (Options: See Elective Group Descriptions)

	Foreign Language - Amharic*	3
	Foreign Language - Arabic*	3
	Foreign Language - Chinese*	3
	Foreign Language - French*	3
	Foreign Language - German	3
	Foreign Language - Haitian Creole* (Options: Courses under code HACR)	3
	Foreign Language - Spanish*	3
	Foreign Language - Swahili*	3
	Foreign Language - Wolof*	3

Biology Electives - (4) * (Options: Courses under code BIOL)

BIOL 205	Invertebrate Biology Lec/Lab	4
BIOL 207	Biosphere Lecture	4
BIOL 220	General Microbiology Lec/Lab	4
BIOL 310	Cell Biology	4
BIOL 320	Molecular Biology Lec/Lab	4

BIOL 341	Animal Physiology	4
BIOL 344	Plant Physiology Lec/Lab	4
BIOL 407	Ichthyology Lec/Lab	4
BIOL 409	Animal Behavior Lec/Lab	4
BIOL 413	Developmental Biology Lec	4
BIOL 416	Advanced Cytology Lec-Lab	4
BIOL 422	Immunology Lec/Lab	4
BIOL 425	Patho Bacteriology Lec/Lab	4
BIOL 426	Food Microbiology Lec/Lab	4
BIOL 430	Biostatistics Lec/Lab	4
BIOL 441	Endocrinology I Lec/Lab	4
BIOL 444	Neuroscience Lec/Lab	4
BIOL 445	Eukaryotic Gene Expression	4
BIOL 446	Mycology Lab	4
BIOL 449	Population Genetics Lec-Lab	4
BIOL 450	Molecular Genetics Lec/Lab	4
BIOL 462	Biotechnology Lec/Lab	4
MDMI 103	Microbiology w/Lab	4

Humanities/Soc. Sci. Elective

Biology Elective (3crs) *

BIOL 390	Independent Investigations	3
BIOL 204	Science & Public Policy	3
BIOL 240	Evolution	3
BIOL 329	Global Climate Change Lec/Lab	4
BIOL 348	Biogeochemistry	3
BIOL 390	Independent Investigations	3
BIOL 420	Cancer Biology	3
BIOL 421	Virology	3
BIOL 801	Environmental Studies I	3

Biology Electives

Note – all core courses (BIOL101, BIOL 102, and BIOL 200) must be completed before taking most Biology electives.

BIOL 220	General Microbiology Lec/Lab	4
BIOL 310	Cell Biology	4
BIOL 320	Molecular Biology Lec/Lab	4
BIOL 413	Developmental Biology Lec	4
BIOL 416	Advanced Cytology Lec-Lab	4
BIOL 420	Cancer Biology	3
BIOL 421	Virology	3
BIOL 422	Immunology Lec/Lab	4
BIOL 425	Patho Bacteriology Lec/Lab	4
BIOL 441	Endocrinology I Lec/Lab	4

BIOL 450	Molecular Genetics Lec/Lab	4
BIOL 462	Biotechnology Lec/Lab	4
BIOL 500	Topics Cell & Molecular Biol	1
BIOL 341	Animal Physiology	4
BIOL 344	Plant Physiology Lec/Lab	4
BIOL 406	Exper Parasitology	4
BIOL 444	Neuroscience Lec/Lab	4
BIOL 460	Molecular Physiology of Plants	4
BIOL 502	Topics (Ecology & Evolution)	1
BIOL 202	Plant Diversity Lec/Lab	4
BIOL 205	Invertebrate Biology Lec/Lab	4
BIOL 240	Evolution	3
BIOL 328	Global Environment	2-4
BIOL 402	Insect Biology Lec/Lab	4
BIOL 407	Ichthyology Lec/Lab	4
BIOL 409	Animal Behavior Lec/Lab	4
BIOL 412	Biological Anth. & Human Evol.	4
BIOL 424	Environ Microbiology Lec-Lab	4
BIOL 426	Food Microbiology Lec/Lab	4
BIOL 449	Population Genetics Lec-Lab	4
BIOL 475	Human Evolutionary Bio Lec/Lab	4
BIOL 204	Science & Public Policy	3
BIOL 390	Independent Investigations	3
BIOL 430	Biostatistics Lec/Lab	4
PSYC 023	Neuropsychology	3
CHEM 151	Biochemistry I	3
CHEM 152	Biochemistry II	3
BIOL 217	Honors Orientation	1
BIOL 218	Direct Readings for Sophomores	1
BIOL 419	Bioinformatics Lec/Lab	4
BIOL 801	Environmental Studies I	3
BIOL 501	Topics (Anat & Physiology)	1
BIOL 317	Direct Readings in Jr Honors	1
BIOL 318	Direct Readings in Jr Honors	1
BIOL 417	Evolutionary Medicine Lec/Lab	4

General Elective (Options: To be determined in consultation with advisor) (3)

Physical Education

Biology Requirement (4)

CC, AP or EE Requirement or Elective

Experiential Learning

Health Education Requirement (Options: Courses under
subject code HHPL)

Innovative Learning Requirement

African Diasporic Cluster

African Studies Elective (Options: Courses under subject code 3
AFST)
