2013-2014 Genetics

Freshman Year

First Semester			Second Semester		
GEN 1030	Careers in Genetics and Biochemistry	1	BIOL 1110	Principles of Biology II	5
BIOL 1100	Principles of Biology I	5	MTHS 1080	Calculus of One Variable II	4
MTHS 1060	Calculus of One Variable I	4	CH 1020	General Chemistry	4
CH 1010	General Chemistry	4	ENGL 1030	Accelerated Composition	3
Semester Hours: 14			Semester Hours: 16		

Sophomore Year

First Semester			Second Semester		
CH 2230	Organic Chemistry I	3	CH 2240	Organic Chemistry II	3
CH 2270	Organic Chemistry I Lab	1	CH 2280	Organic Chemistry II Lab	1
GEN 3020	Molecular and General Genetics	3	BCHM 3010	Molecular Biochemistry	3
COMM 1500 or COMM 2500	Introduction to human communication or Public speaking	3	BCHM 3020	Molecular Biochemistry Lab	2
PHYS 1220	Physics with Calculus I[1]	3	EXST 3010	Introductory Statistics	3
PHYS 1240	Physics with Calculus I Lab[1]	1	Arts and Humanities (Literature) reqm't[2]		3
			Social Science Requirement[2]		3
Semester Hours: 14			Semester Hours: 18		

Junior Year

First Semester			Second Semester		
GEN 4200	Molecular Genetics and Gene Regulation	3	GEN 4100	Population and Quantitative Genetics	3
GEN 4210	Molec. Genetics and Gene Reg. Lab	2	GEN 4110	Pop and Quant Genetics Lab	2
GEN 4400	Bioinformatics	3	BIOL 4610	Cell Biology	3
Science Requirement[3]		3	PHIL 3260	Science and Values	3
Elective[4]		3	Genetics Requirement[5]		3
			Elective[4]		3
Semester Hours: 14			Semester Hours: 16		

Senior Year

First Semester			Second Semester		
Social Science Requirement[2]		3	BCHM 4930	Senior Seminar	2
Science Requirement[3]		3	Genetics Requirement[5]		6
GEN 4500	Comparative Genetics	3	Science Requirement[3]		3
Elective[4]		6	Elective[4]		4
Semester Hours: 15			Semester Hours: 15		

Total – 123 hrs

[1]Medical, veterinary, and graduate school requirements often include two semesters of physics with calculus and the physics laboratory. Students are encouraged to check requirements for admission to professional postgraduate programs.
[2]See General Education Requirements. Three of these credit hours must also satisfy the Cross-Cultural Awareness Requirement.
[3]BIOL 2220, 2230, PHYS 2080, 2100, 2210, 2230, or any courses at 3000 level or above in BCHM, BIOE, BIOL, CH, EXST, GEN, MTHS, MICR, PHYS, PLPA, and PLPH. Other courses must be approved by advisor. A maximum of nine credit hours from undergraduate research courses (4910, creative inquiry or similar courses) may be used towards the combined science and genetics requirements.
[4]Two semesters of a foreign language are strongly recommended.
[5]AVS 4700, BCHM 4310, 4320, 4330, 4340, 4360, 4430, 4910, BIOL 3350, 4400, 4500, (PLPA) 4540, 4560, 4570, CSEN 4050, GEN 4700, 4910, MICR 3050, 4150, 4170

Notes:
1. A student is allowed to enroll in science and mathematics course only when all prerequisites have been passed with a grade of C or better.
2. A minimum grade of C is required in all science and mathematics courses. No student may exceed a maximum of two attempts, excluding a W, to complete successfully any science or mathematics course.