

B.S. in Biology: Ecology and Evolutionary Biology Concentration

Name: _____ ID# _____

I. Major Requirements (44 h + Senior Research)

Category	Course	Grade	Semester	Hrs Earned	Notes
Prin. Biology I (4 h)	BIOL 140				
Prin. Biology II (4 h)	BIOL 141				
Genetics (4 h)	BIOL 240				
Ecology/Evolution (4 h)	BIOL 241				
Senior Research (≥3 h)	BIOL 480, or BIOL 495-499				
Mathematics (4 h)	MATH 153				Prereq: MATH 146
Gen. Chemistry I (4 h)	CHEM 139				
Gen. Chemistry II (4 h)	CHEM 140				
Org. Chemistry I (4 h)	CHEM 241				
Org. Chemistry II (4 h)	CHEM 242				
Physics I (4 h)	PHYS 130				
Physics II (4 h)	PHYS 131				

II. Ecology & Evolution Concentration Requirements (25 h)

Required (3 h)	BIOL 304				
Required (3 h)	BIOL 306				
Required (4 h)	BIOL 375				
CM Elective (3-4 h)					
EE Elective (3-4 h)					
OB Elective (3-4 h)					
BIOL Electives (<i>sufficient to bring the total for the concentration up to at least 25 h; may be chosen from any course set including GB</i>)					

III. Liberal Studies (33 h)

Category	Course	Grade	Semester	Hrs Earned	Notes
C1 - Writing (3 h)	ENGL 101				
(3 h)	ENGL 202				
C2 - Mathematics (3 h)	Satisfied by major requirements				
C3 - Oral Comm. (3 h)	COMM 201				
C4 - Wellness (3 h)					
C5 - Biol/Phys Sci (6 h)	Satisfied by major requirements				
P1 - Social Sci (3 h)					Discipline 1
(3 h)					Discipline 2
P3 - History (3 h)					NOTE: ONE
P4 - Humanities (3 h)					PERSPECTIVE
P5 - Fine/Perf Arts (3 h)					MUST BE
P6 - World Cultures (3 h)					UPPER LEVEL
1 st Year Seminar (3 h)					

IV. General Electives

Category	Course	Grade	Semester	Hrs Earned	Notes

Total Hours required:	120
Liberal Studies	_____
Major Requirements	_____
General Electives	_____
Total	_____
Thirty hours at the 300/400 level?.....	yes no
Liberal Studies Upper Level Perspective?.....	yes no
No more than two non-Biology electives in concentration?	yes no
GPA of 2.0 or better in the major?.....	yes no

Upper-level Biology Elective Course Sets (course prefix is BIOL unless otherwise noted):

Cell and Molecular Biology (CM) Electives (3-4 h)

313, Microbiology in Health and Nutrition	(4 h)	421, Principles of Biotechnology	(4 h)
333, Cell and Molecular Biology	(4 h)	422, Forensic Biology	(4 h)
361, Principles of Biochemistry	(3 h)	423, Biophysics	(3 h)
412, Cell. and Mol. Immunology	(3 h)	424, Pharmacology	(3 h)
413, Prin. of Gen. Microbiology	(4 h)	461, Molecular Medicine	(3 h)
416, Plant Molecular Biology	(3 h)	474, Virology	(4 h)
417, Biochemistry	(3 h)	CHEM370, Instrument Analysis I	(3 h)
418, Adv. Tech. in Microscopy	(4 h)	CHEM435, Instrument Analysis II	(3 h)
419, Cell Biology	(3 h)	CHEM462, Molecular Bioinformatics	(3 h)

Ecology and Evolution (EE) Electives (3-4 h)

304, General Ecology	(3 h)	441, Conservation Biology	(3 h)
306, Evolutionary Biology	(3 h)	453, Systematics	(3 h)
330, Pop. Gen. for Forensic Sciences	(3 h)	471, Animal Behavior	(4 h)
375, Methods in Ecology and Evolution	(4 h)	473, Microbial Ecology	(4 h)
420, Darwin's Origin of Species	(3 h)	CHEM461, Environmental Chemistry	(3 h)
433, Ecological Co-Adaptations	(4 h)	GEOL455, Wetlands	(3 h)
434, Terrestrial Landscape Ecology	(4 h)	NRM371, Landscape Ecology	(3 h)
435, Aquatic Ecology	(4 h)	NRM442, Natural Resources Policy and Admin.	(3 h)
438, Ecological Restoration	(3 h)		

Organismal Biology (OB) Electives (3-4 h)

321, Plant Biology	(4 h)	455, Vascular Plants	(4 h)
373, Invertebrate Zoology	(4 h)	470, Biology of Arthropods	(4 h)
374, Vertebrate Zoology	(4 h)	472, Ornithology	(4 h)
411, Animal Physiology	(3 h)	475, Animal Development	(4 h)
415, Plant Physiology	(3 h)	476, Contemporary Fisheries	(4 h)
425, Flora of the Southern Appalachians	(4 h)	477, Herpetology	(4 h)
452, Plant Anatomy	(4 h)	478, Parasitology	(4 h)

General Biology (GB) Electives

389, Cooperative Education in Biology	(1 or 3 h)	MATH375, Statistical Methods II	(3 h)
467, Biostatistics	(3 h)	NRM344, Applied GIS	(4 h)
493, Seminar Series & Studies in Biology	(1-6 h)	PAR330, America's Wild. Ethics & Aesth.	(P4, 3 h)
GEOG 221, Geographic Info. Systems (GIS)	(3 h)	PAR332, Biomedical Ethics and Social Justice	(P4, 3 h)
GEOL305, Soils and Hydrology	(4 h)	PAR333, Environmental Ethics	(P4, 3 h)
MATH370, Probability and Statistics I	(3 h)		

Research Electives

389, Cooperative Education in Biology	(1 or 3 h)	495, Introduction to Senior Thesis	(1 h)
480, Research in Biology	(1 - 3 h)	498, Senior Thesis I	(2 h)
493, Studies in Biology	(1 - 6 h)	499, Senior Thesis II	(1 h)