




























ECOLOGY AND EVOLUTIONARY BIOLOGY, EMPHASIS




 - General Education Course

 - Milestone course: a key success marker for your major. See your advisor to discuss the importance of this course in your plan of study.

Major

The Core Curriculum is designed to foster critical thinking skills and introduce students to basic domains of thinking that transcend disciplines. The Core applies to all majors. Information on specific classes in the Core can be found at <https://www.marshall.edu/gened/>.

Code	Title	Credit Hours
Core Curriculum		
<i>Core 1: Critical Thinking</i>		
FYS 100	First Yr Sem Critical Thinking	3
	Critical Thinking Course	3
	Critical Thinking Course	3
<i>Core 2</i>		
ENG 101 	Beginning Composition	3
ENG 201 	Advanced Composition	3
CMM 103 	Fund Speech-Communication	3
MTH 140 	Applied Calculus	3
BSC 120  	Principles of Biology ¹	4
	Core II Humanities	3
	Core II Social Science	3
	Core II Fine Arts	3
<i>Additional University Requirements</i>		
	Writing Intensive	3
	Writing Intensive	3
	Multicultural or International	3
BSC 491 	Capstone Experience ²	2
Major-Specific		
BSC 121  	Principles of Biology ¹	4
CHM 211  	Principles of Chemistry I	3
CHM 217  	Principles of Chem Lab I	2
CHM 212  	Principles Chemistry II	3
CHM 218  	Principles of Chem Lab II	2
CHM 355 	Organic Chemistry I	3
CHM 356 	Organic Chemistry II	3
CHM 361	Intro Organic Chm Lab	3
PHY 201  	College Physics I	3
PHY 202  	General Physics I Laboratory	1
PHY 203 	College Physics II	3
PHY 204 	General Physics 2 Laboratory	1
BSC 491 	Capstone Experience (C) ²	2
Area of Emphasis-Specific		

BSC 320 	Principles of Ecology	4
BSC 413 	Prin of Organic Evolution	3
Select two of the following:		6-8
BSC 302	Principles of Microbiology	
BSC 324	Principles of Genetics	
BSC 322	Principles Cell Biology	
BSC 417 	Biostatistics	3
BSC 425	Systematics	3
Select four of the following:		12
BSC 302	Principles of Microbiology	
BSC 304	Microbiology Lab	
BSC 310	Comp Vertebrate Anatomy	
BSC 312	Invertebrate Zoology	
BSC 406	Herpetology	
BSC 408	Ornithology	
BSC 410	Remote Sensing/GIS Appl	
BSC 411	Dgtl Image Proc/GIS Model	
BSC 416	Plant Taxonomy	
BSC 422	Animal Physiology	
BSC 424	Animal Parasitology	
BSC 430	Plant Ecology	
BSC 456	Genes and Development	
BSC 460	Conservation Biology	
CHM 365	Introductory Biochemistry	
	Free Elective (MTH 122 rec for PHY pre-req)	3
	Free Elective	3
	Free Elective	3
	Free Elective	3

¹ BSC 104 Introduction to Biology and BSC 105 Human Biology will not substitute for BSC 120 Principles of Biology and BSC 121 Principles of Biology for a major in the Department of Biological Sciences.


² **Capstone Experience:** It is the responsibility of each student to consult his/her advisor regarding details of meeting the capstone requirement. The capstone may be a traditional independent study research project under the supervision of a faculty member selected by the student, participation in a classroom-based capstone course, or the development and implementation of an internship, co-op, or community-based project.

Major Information

- Students must pass BSC 120 Principles of Biology and earn a grade of C or better in BSC 121 Principles of Biology, CHM 211 Principles of Chemistry I, and CHM 212 Principles Chemistry II before they can enroll in any upper-level BSC course except BSC 227 Human Anatomy, BSC 228 Human Physiology and BSC 250 Microbiol & Human Disease.
- In addition to the Core General Education requirements, the College of Science requires 3 hours of Calculus, and 40 hours of upper level credit.
- The CHM coursework provides a Chemical Sciences minor.
- Coursework listed as "elective" may vary for each student. Students are encouraged to use elective hours toward a 2nd minor or toward prerequisites.














- Students are strongly encouraged to select courses that meet two or more Core or College requirements. For example, a writing intensive literature course could satisfy the Core II Humanities requirement as well as the University writing intensive requirement.
- Course offerings and course attributes are subject to change. Please consult each semester's schedule of courses for availability and attributes.
- MTH 140 Applied Calculus requires ACT Mathematics score of 24 or higher. Students with an ACT Mathematics score less than 24 will be placed in the appropriate mathematics courses.
- All Biological Science majors are required to complete a minimum of 40 hours of credits in the Department of Biological Sciences.


















 - General Education Course

 - Milestone course: a key success marker for your major. See your advisor to discuss the importance of this course in your plan of study.

Four Year Plan

The Department of Biological Sciences is committed to teaching students about the science of life from molecular to global scales. A degree in Biological Sciences prepares students for careers and graduate study in diverse fields such as human and veterinary medicine, dentistry, biomedical and pharmaceutical research, environmental consulting, wildlife ecology, and K12 or higher education. Students completing the Area of Emphasis in Ecology and Evolutionary Biology will be prepared for a wide range of careers including ecology, paleontology, environmental education, and may take positions with universities, museums, state or federal government agencies (USFS, USFWS, USGS, DNR, EPA); environmental consulting firms; conservation agencies; and non-governmental organizations.

Course	Title	Credit Hours
First Year		
First Semester		
BSC 120  	Principles of Biology	4
MTH 140 	Applied Calculus	3
ENG 101 	Beginning Composition	3
Free Elective		3
UNI 100	Freshman First Class	1
Credit Hours		14
Second Semester		
BSC 121  	Principles of Biology	4
FYS 100	First Yr Sem Critical Thinking	3
Fine Arts Elective		3
CMM 103 	Fund Speech-Communication	3
Free Elective (MTH 122 rec for PHY PR)		3
Credit Hours		16
Second Year		
First Semester		
BSC 320 	Principles of Ecology	4
CHM 211  	Principles of Chemistry I	3
CHM 217  	Principles of Chem Lab I	2
ENG 201 	Advanced Composition	3

PSY 201 	Introductory Psychology (CT) (Core II or SOC 200  Social Science) or Introductory Sociology (CT)	3
Credit Hours		15
Second Semester		
CHM 212  	Principles Chemistry II	3
CHM 218  	Principles of Chem Lab II	2
Select one of the following:		3-4
BSC 302	Principles of Microbiology	
BSC 322	Principles Cell Biology	
BSC 324	Principles of Genetics	
AoE Elective		3
Core I Critical Thinking		3
Credit Hours		14-15
Third Year		
First Semester		
BSC 413 	Prin of Organic Evolution	3
CHM 355 	Organic Chemistry I	3
Select one of the following:		3-4
BSC 302	Principles of Microbiology	
BSC 322	Principles Cell Biology	
BSC 324	Principles of Genetics	
Free Elective		3
Free Elective		3
Credit Hours		15-16
Second Semester		
CHM 356 	Organic Chemistry II	3
CHM 361	Intro Organic Chm Lab	3
Core II Humanities		3
AoE Elective		3
Free Elective		3
Credit Hours		15
Fourth Year		
First Semester		
BSC 417 	Biostatistics	3
PHY 201  	College Physics I	3
PHY 202  	General Physics I Laboratory	1
Multicultural or International		3
Writing Intensive		3
AoE Elective		3
Credit Hours		16
Second Semester		
BSC 491 	Capstone Experience (C)	2
Writing Intensive		3
AoE Elective		3
BSC 425	Systematics	3
PHY 203 	College Physics II	3
PHY 204 	General Physics 2 Laboratory	1
Credit Hours		15
Total Credit Hours		120-122