


























NATURAL HISTORY AND CONSERVATION, 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	
<i>Core 2</i>		
ENG 101 	Beginning Composition	3
ENG 201  	Advanced Composition	3
CMM 103 	Fund Speech-Communication	3
BSC 120  	Principles of Biology ¹	4
MTH 140 	Applied Calculus	3
	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

Select two of the following: 6-8

BSC 302 Principles of Microbiology

BSC 324 Principles of Genetics

BSC 322 Principles Cell Biology

BSC 413 Prin of Organic Evolution 3

BSC 417  Biostatistics 3

BSC 460 Conservation Biology 3

CHM 365 Introductory Biochemistry 3

BSC 425 Systematics 3

AoE Elective

Select three of the following: 9

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

CHM 365 Introductory Biochemistry

Free Elective (MTH 122 recommended for PHY Pre-req) 3

Free Elective 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 semesters schedule of courses for availability and attributes.
- Calculus I requires ACT Mathematics score of 27 or higher. Students with an ACT Mathematics score less than 27 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 Natural History and Conservation will be prepared for a wide range of careers including positions with state or federal government agencies (USFS, USFWS, USACE, DNR, EPA); environmental consulting firms; conservation agencies; non-governmental organizations, and museums.




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
Core II Fine Arts		3
CMM 103 	Fund Speech-Communication	3
Free Elective (MTH 122 recommended for PHY Pre-req)		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	3
or SOC 200 	Social Science)	
	or Introductory Sociology (CT)	
Credit Hours		15

Second Semester


CHM 212  	Principles Chemistry II	3
CHM 218 	Principles of Chem Lab II	2
AoE Elective		3
Core I Critical Thinking		3
Select one of the following:		3-4
BSC 302	Principles of Microbiology	
BSC 324	Principles of Genetics	
BSC 322	Principles Cell Biology	
Credit Hours		14-15

Third Year

First Semester




BSC 413	Prin of Organic Evolution	3
CHM 355 	Organic Chemistry I	3
AoE Elective		3
Free Elective		3
Free Elective		3
Credit Hours		15

Second Semester


CHM 356 	Organic Chemistry II	3
CHM 361	Intro Organic Chm Lab	3
Core II Humanities		3
Select one of the following:		3-4
BSC 302	Principles of Microbiology	
BSC 324	Principles of Genetics	
BSC 322	Principles Cell Biology	
Free Elective		3
Credit Hours		15-16



Fourth Year

First Semester

BSC 417 	Biostatistics	3
BSC 460	Conservation Biology	3
PHY 201 	College Physics I	3
PHY 202 	General Physics I Laboratory	1
Writing Intensive		3
Free Elective		3
Credit Hours		16

Second Semester

BSC 491 	Capstone Experience (C)	2
Writing Intensive		3
BSC 425	Systematics	3
AoE Elective		3

PHY 203	 College Physics II	3
PHY 204	 General Physics 2 Laboratory	1
Credit Hours		15
Total Credit Hours		120-122