

# BIOLOGICAL SCIENCES

## REQUIREMENTS

**CORE CURRICULUM** 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 [marshall.edu/gened](http://marshall.edu/gened).

### CORE 1: CRITICAL THINKING

CODE	COURSE NAME	HRS	GRADE
FYS 100	First Year Seminar	3	_____
_____	Critical Thinking Course	3	_____
_____	Critical Thinking Course (PSY 201 recommended for Pre-Professional)	3	_____

#### Additional University Requirements

_____	Writing Intensive	3	_____
_____	Writing Intensive	3	_____
_____	Multicultural or International	3	_____
BSC 491	Capstone	2	_____

### CORE 2:

CODE	COURSE NAME	HRS	GRADE
ENG 101	Beginning Composition	3	_____
ENG 201	Advanced Composition	3	_____
CMM 103	Fund Speech-Communication	3	_____
MTH 140 or MTH 229	Applied Calculus or Calculus/ Analytic Geom I (CT)	3-5	_____
BSC 120/L	Principles of Biology I / Lab	3/1	_____
_____	Core II Humanities	3	_____
_____	Core II Social Science	3	_____
_____	Core II Fine Arts	3	_____

## MAJOR-SPECIFIC

All Biological Sciences majors are required to take the following courses:

CODE	COURSE NAME	HRS	GRADE	CODE	COURSE NAME	HRS	GRADE
BSC 121/L	Principles of Biology II / Lab	3/1	_____	_____	Technical Elective (CHM361 Recommended)	3	_____
CHM 211	Principles of Chemistry I	3	_____	_____	Technical Elective	3	_____
CHM 217	Principles of Chemistry I Lab	2	_____	_____	Technical Elective	3	_____
CHM 212	Principles of Chemistry II	3	_____	BSC 491	Capstone (C)	2	_____
CHM 218	Principles of Chemistry II Lab	2	_____	_____	BSC Elective	4	_____
CHM 327	Intro Organic Chemistry or or 355 Organic Chemistry I	3	_____	_____	BSC Elective	4	_____
PHY 201	College Physics I	3	_____	_____	BSC Elective	4	_____
PHY 202	College Physics I Lab	1	_____	_____	BSC Elective	3	_____
BSC 3__	BSC Core Course	3-4	_____	_____	BSC Elective	3	_____
BSC 3__	BSC Core Course	3-4	_____	_____	BSC Elective (BSC 417 Recommended)	3	_____
BSC 3__	BSC Core Course	3-4	_____	_____	Free Elective (MTH 122 recommended for PHY pre-req)	3	_____
BSC 3__	BSC Core Course	3-4	_____	_____	Free Elective (PHY 203/204 recommended)	4	_____
_____	Technical Elective (CHM 356 Recommended)	3	_____				

## MAJOR INFORMATION

- Students must pass BSC 120 Principles of Biology I & BSC 120L Principles of Biology I Lab and earn a grade of C or better in BSC 121 Principles of Biology II & BSC 121L Principles of Biology II Lab, 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.
- 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. Students must have completed a minimum of 16 hours of BSC coursework before they will be permitted to register for Capstone.
- BSC 104 Introduction to Biology, BSC 105 Human Biology, BSC 227/227L Human Anatomy, BSC 228/228L Human Physiology, and BSC 250 Microbiol and Human Disease do not count towards a BSC major and cannot substitute for any required or elective BSC courses.
- A minimum of 15 hours of 400-level credit is required.
- Students are required to know and track their degree requirements for

- graduation or for entrance to a professional school.
- In addition to the Core General Education requirements, the College of Science requires 3-5 hours of Calculus, and 40 hours of upper-level credit.
- Students who choose CHM 355, 356, and 361 will have the necessary coursework for 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 prerequisite mathematics courses.
- All Biological Science majors are required to complete a minimum of 40 hours of credits in the Department of Biological Sciences.
- See undergraduate catalog for a listing of BSC core courses and electives.

General Education Requirement ■ College Requirement ◆ Major Requirement ● Area of Emphasis

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

# BIOLOGICAL SCIENCES

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. Alumni of the Department work as health professionals, teach at all educational levels, serve as environmental researchers and regulators, conduct biomedical and pharmaceutical research, and hold positions in state and federal agencies.

FALL SEMESTER					SPRING SEMESTER					
CODE	COURSE NAME	HRS	GRADE		CODE	COURSE NAME	HRS	GRADE		
BSC 120/L	Principles of Biology I / Lab	3	1		BSC 121/L	Principles of Biology II / Lab	3	1		
MTH 140 or	Applied Calculus or Calculus/	3-5			FYS 100	First Year Sem Crit Thinking	3			
MTH 229	Analytic Geom I (CT)				CHM 212	Principles of Chemistry II	3			
CHM 211	Principles of Chemistry I	3		CHM 218	Principles of Chemistry II Lab	2				
CHM 217	Principles of Chemistry I Lab	2			Free Elective (MTH 122	3				
UNI 100	Freshman First Class	1				recommended for PHY pre-req)				
<b>TOTAL HOURS</b>				<b>13-15</b>	<b>TOTAL HOURS</b>				<b>15</b>	
Summer Term (optional):										
FALL SEMESTER					SPRING SEMESTER					
CODE	COURSE NAME	HRS	GRADE		CODE	COURSE NAME	HRS	GRADE		
BSC 3__	BSC Core Course	3-4			BSC 3__	BSC Core Course	3-4			
	Core II Fine Arts	3				Core II Social Science (CT)	3			
	Multicultural or International	3				BSC Elective	4			
ENG 101	Beginning Composition	3			ENG 201	Advanced Composition	3			
	Core I Critical Thinking	3			CHM 327	Intro Organic Chemistry or Organic	3			
					or 355	Chemistry I				
<b>TOTAL HOURS</b>				<b>15-16</b>	<b>TOTAL HOURS</b>				<b>16-17</b>	
Summer Term (optional):										
FALL SEMESTER					SPRING SEMESTER					
CODE	COURSE NAME	HRS	GRADE		CODE	COURSE NAME	HRS	GRADE		
BSC 3__	BSC Core Course	3-4			BSC 3__	BSC Core Course	3-4			
	BSC Elective	4				Technical Elective (CHM 356	3			
	BSC Elective (BSC 417	3				Recommended)				
	Recommended)					Technical Elective (CHM361	3			
CMM 103	Fund Speech-Communication	3				Recommended)				
						Core II Humanities	3			
						BSC Elective	4			
<b>TOTAL HOURS</b>				<b>13-14</b>	<b>TOTAL HOURS</b>				<b>16-17</b>	
Summer Term (optional):										
FALL SEMESTER					SPRING SEMESTER					
CODE	COURSE NAME	HRS	GRADE		CODE	COURSE NAME	HRS	GRADE		
	BSC Elective	3			BSC 491	Capstone	2			
PHY 201	College Physics I	3				Writing Intensive	3			
PHY 202	College Physics I Lab	1				BSC Elective	3			
	Writing Intensive	3				Free Elective (PHY 203/204	4			
	BSC Elective	3				recommended)				
	Technical Elective	3				Technical Elective	3			
<b>TOTAL HOURS</b>				<b>16</b>	<b>TOTAL HOURS</b>				<b>15</b>	
Summer Term (optional):										

Area of Emphasis

Major Requirement

College Requirement

General Education Requirement

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