CURRICULUM PLAN COLLEGE OF SCIENCE 2023-2024

MY ADVISOR'S NAME IS: _____

BIOLOGICAL SCIENCES
ECOLOGY AND EVOLUTIONARY BIOLOGY

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.

CORE 1: CRITICAL THINKING

CODE	COURSE NAME		HRS	GRADE
FYS 100	First Year Seminar	●	3	
_____	Critical Thinking Course	●	3	
_____	Critical Thinking Course	●	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:

BSC 121/L	Principles of Biology II / Lab	◆	3/1	
CHM 211	Principles of Chemistry I	◆	3	
CHM 217	Principles of Chemistry I Lab	◆	2	
CHM 212	Principles of Chemistry II	◆	3	
CHM 218	Principles of Chemistry II Lab	◆	2	
CHM 327 or 355	Intro Organic Chemistry or Organic Chemistry I	◆	3	
PHY 201	College Physics I	◆	3	
PHY 202	College Physics I Lab	◆	1	

AREA OF EMPHASIS-SPECIFIC

Students who wish to add an area of emphasis in Ecology and Evolutionary Biology must take the following courses:

CODE	COURSE NAME		HRS	GRADE
BSC 320	Principles of Ecology	◆	4	
BSC 340	Principles of Evolution	◆	3	
BSC 417	Biostatistics	◆	3	
BSC 324	Principles of Genetics	◆	4	
BSC 3___	BSC Core Course	◆	4/5	
_____	AoE Elective	◆	3	
_____	AoE Elective	◆	3	
_____	AoE Elective	◆	4	

CODE	COURSE NAME		HRS	GRADE
_____	AoE Elective	◆	4	
_____	AoE Elective	◆	4	
_____	BSC Technical Eleective	◆	3	
_____	BSC Technical Eleective	◆	3	
_____	BSC Technical Eleective	◆	3	
_____	BSC Technical Eleective	◆	3	
_____	Free Elective		3	
_____	Free Elective (MTH 122 recommended for PHY pre-req)		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.
- 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.
- 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.
- 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.
- 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 Core Courses: students will select one of the following: BSC 302 & 304, 322, 332 & 332L or 334 &334L
- AoE Elective students will select a minimum of 18 credits of the following: BSC 301, 310, 312, 401, 406, 408, 409, 410, 411, 416, 420, 421, 422, 424, 425, 426, 430, 431, 438, 443, 450, 460 or CHM 365
- BSC Technical Electives: Select a minimum of 12 credits of 300 or 400-level BSC or closely related courses for technical electives. The courses must be approved by the department chair.

● 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.

FOUR YEAR PLAN COLLEGE OF SCIENCE 2023-2024

MY ADVISOR'S NAME IS: _____

BIOLOGICAL SCIENCES
ECOLOGY AND EVOLUTIONARY BIOLOGY

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.

YEAR ONE

FALL SEMESTER

CODE	COURSE NAME		HRS	GRADE
BSC 120/L	Principles of Biology I / Lab	● ◆	3/1	
MTH 140 or MTH 229	Applied Calculus or Calculus/ Analytic Geom I (CT)	● ◆	3-5	
ENG 101	Beginning Composition	●	3	
_____	Core I Critical Thinking	●	3	
UNI 100	Freshman First Class		1	
TOTAL HOURS			**14-16**	

SPRING SEMESTER

CODE	COURSE NAME		HRS	GRADE
BSC 121/L	Principles of Biology II / Lab	◆	3/1	
FYS 100	First Year Sem Crit Thinking	●	3	
_____	Fine Arts Elective	●	3	
CMM 103	Fund Speech-Communication	●	3	
_____	Free Elective (MTH 122 recommended for PHY pre-req)		3	
TOTAL HOURS			**16**	

Summer Term (optional):

YEAR TWO

FALL SEMESTER

CODE	COURSE NAME		HRS	GRADE
BSC 320	Principles of Ecology	◆	4	
CHM 211	Principles of Chemistry I	◆	3	
CHM 217	Principles of Chemistry I Lab	◆	2	
ENG 201	Advanced Composition	●	3	
_____	Core II Social Science (PSY 201 or SOC 200) (CT)	●	3	
TOTAL HOURS			**15**	

SPRING SEMESTER

CODE	COURSE NAME		HRS	GRADE
CHM 212	Principles of Chemistry II	◆	3	
CHM 218	Principles of Chemistry II Lab	◆	2	
BSC 417	Biostatistics	◆	3	
BSC 324 or 340	Principles of Genetics or Principles of Evolution	◆	3-4	
_____	Core I Critical Thinking	●	3	
TOTAL HOURS			**14-15**	

Summer Term (optional):

YEAR THREE

FALL SEMESTER

CODE	COURSE NAME		HRS	GRADE
CHM 327 or 355	Intro Organic Chemistry or Organic Chemistry I	◆	3	
BSC 324 or 340	Principles of Genetics or Principles of Evolution	◆	3-4	
_____	AoE Elective	◆	3	
_____	AoE Elective	◆	3	
_____	Free Elective		3	
TOTAL HOURS			**15-16**	

SPRING SEMESTER

CODE	COURSE NAME		HRS	GRADE
_____	AoE Elective	◆	4	
_____	AoE Elective	◆	4	
_____	BSC Technical Eleective	◆	3	
_____	Core II Humanities	●	3	
TOTAL HOURS			**14**	

Summer Term (optional):

YEAR FOUR

FALL SEMESTER

CODE	COURSE NAME		HRS	GRADE
PHY 201	College Physics I	■	3	
PHY 202	College Physics I Lab	■	1	
_____	BSC Technical Eleective	◆	3	
_____	BSC Technical Eleective	◆	3	
_____	Multicultural or International	●	3	
_____	Writing Intensive	●	3	
TOTAL HOURS			**16**	

SPRING SEMESTER

CODE	COURSE NAME		HRS	GRADE
BSC 491	Capstone	● ■	2	
BSC 3___	BSC Core Course	◆	4/5	
_____	BSC Technical Eleective	◆	3	
_____	AoE Elective	◆	4	
_____	Writing Intensive	●	3	
TOTAL HOURS			**16-17**	

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.