

MARINE BIOLOGY DEGREE (AY 2019-2020)

GENERAL EDUCATION CURRICULUM (See Undergraduate Bulletin for full description of GEC)

	Credit Hours
GEC 01. Written Communication (Select both)	
ENG 101 - Composition One	3
ENG 102 - Composition Two	3
GEC 02. Natural Science Requirement (Select both)	
BSC 110/L* - Principles of Biological Sciences I & Lab	3/1
BSC 111/L* - Principles of Biological Sciences II & Lab	3/1
GEC 03. Humanities (Select 3 courses)	
01. REQUIRED: ENG 203 - World Literature	3
02. SELECT 2 courses. One history course is required.	
HIS 101 - World Civilizations: Beginning to 1500 C.E.	3
HIS 102 - World Civilizations: 1500 C.E. to the Present	3
PHI 151 - Introduction to Philosophy	3
PHI 171 - Ethics and Good Living	3
REL 131 - Comparative Religions	3
GEC 04. Aesthetic Values. SELECT 1 course.	
ART 130 – Art Appreciation	3
DAN 130 - Dance Appreciation	3
MUS 165 - The Enjoyment of Music	3
THE 100 - Theatrical Expressions	3
GEC 05. Social and Behavioral Sciences. SELECT 2 courses.	
ANT 101 - The Human Experience: A Global Perspective on Human Diversity	3
COH 100 - Concepts of Wellness	3
ECO 101 - Basic Economics	3
GHY 101 - World Geography: Dynamics of a Changing Earth	3
PS 101 - American Government	3
PSY 110 - General Psychology	3
SOC 101 - Understanding Society: Principles of Sociology	3
GEC 06. Mathematics Requirement. SELECT 1 of the following calculus courses. **	
MAT 114 - Calculus for Arts and Science OR	3
MAT 167 - Calculus I with Analytical Geometry	3
GEC 07. Writing-Intensive Requirement.	
BSC 345 – Marine Biology (WI) (Prerequisites = ENG 101 & ENG 102)	3/1
GEC 08. Speaking-Intensive Requirement. SELECT 1 course.	
CMS 111 - Oral Communication	3
CMS 305- Interpersonal Communication	3
CMS 320 - Business and Professional Speaking	3
CMS 330 - Small Group Communication	3
GEC 09. Capstone Requirement (Major Area).	
BSC 497* - Senior Practicum	1

*This course is required for this major.

**Calculus is required for this major. MAT 114 is recommended for biology majors. MAT 167 is generally taken by student desiring a minor or a second major in mathematics. Students may enroll in MAT 114 if their ACT mathematics subtest score is ≥ 24 . Students enrolling in MAT 167 must have an ACT mathematics subtest score of ≥ 26 . Students entering USM with an ACT mathematics subtest score of 20 to 23 must complete MAT 101 (College Algebra) with a C or better before taking MAT 114. Students entering USM with an ACT mathematics subtest score of ≤ 19 must take MAT 099 (Intermediate Algebra) during their first semester and earn at least a C prior to enrolling in MAT 101(which must also be completed satisfactorily prior to enrolling in MAT 114). MAT 103 (Trigonometry) is recommended for students lacking a good background in mathematics.

PROGRAM CURRICULUM

DEG 01. Major Area of Study Requirements

A MINIMUM OF 39-40 HOURS MUST BE TAKEN WITHIN DEG 01, including BSC 110/L, BSC 111/L, BSC 445/L, and BSC 497. Of these hours, 10 hours must be taken at the GCRL.

01. BSC 197 - First Year Foundations			1
02. BSC 201/L - General Zoology & Lab			3/1
03. BSC 226/L - General Botany & lab			3/1
04. BSC 282/L - General Microbiology & Lab (will be BSC 282 starting Spring 2020)			3/1
05. BSC 370 - Genetics			3
06. BSC 439/L – Marine Ecology & Lab			3/1
07. BSC 345/L - Marine Biology & Lab (WI)			3/1

08. Physiology Elective. SELECT 1 course.

BSC 360 - Cell Biology	3	BSC 452 - Environmental Physiology	3
BSC 450 - Comparative Animal Physiology	3	BSC 453 - Invertebrate Physiology	3
BSC 451 - Human Physiology	3		

09. Ecology/Organisms/Technology Elective (SELECT at least 1 course)

BSC 382 - Microbial Ecology	3	BSC 440/L - Ecology & Lab	3/1
BSC 407/L - Biology of Vertebrates & Lab	3/1	BSC 441/L - Pop & Community Ecology & Lab	3/1
BSC 408/L - Invertebrate Zoology I & Lab	3/1	BSC 476 - Molecular Biology	3
BSC 414/L - Ichthyology & Lab	2/2	BSC 478/L - Modern Methods in Biotechnology	3/1
BSC 430/L - Aquatic & Marsh Plants & Lab	2/2	BSC 487/L - Microbial Physiology & Lab	3/1
BSC 436/L - Conservation Biology & Lab	3/1	BSC 489/L Environ Microbiology & Lab	3/1

10. Marine Biology Electives (SELECT at least 10 hours from the following list to be taken at the Gulf Coast Research Laboratory in Ocean Springs).

COA 300//L – Marine Science I	3/2	COA 428/L - Marine Invert Zoology & Lab	3/3
COA 416/L - Marine Fish. Management & Lab	3/2	COA 443/L - Marine Mammals & Lab	3/2
COA 421/L - Marine Ichthyology & Lab	3/3	COA 446/L - Marine Ecology & Lab	3/2
COA 422/L - Elasmobranch Biology & Lab	3/2	COA 453/L - Parasites of Marine Animals & Lab	3/3
COA 424/L - Marine Aquaculture & Lab	3/3	COA 470/L - Elasmobranch Physiology & Lab	3/2

DEG 02. Additional Requirements (43 hours)

01. CHE 106/L - General Chemistry I & Lab			3/1
02. CHE 107/L - General Chemistry II & Lab			3/1
03. CHE 255/L - Organic Chemistry I & Lab			3/1
04. CHE 256/L - Organic Chemistry II & Lab OR CHE 420/L Prin. of Biochemistry & Lab			3/1
05. MAR 201 - The Oceans			3
06. PHY 111/L - General Physics I & Lab			3/1
07. PHY 112/L - General Physics II & Lab			3/1
08. PSY 360 - Intro to Statistics for Behavioral Sciences			3

DEG 03. Recommended Electives – Choose as needed (see hours to degree below).

BSC 406 - Biogeography	3	GHY 104/L – Weather and Climate & Lab	3/1
BSC 422/L – Coastal & Marine Management & Lab	3/1	GLY 101/L – Physical Geology & Lab	3/1

DEG 04. Minor Area of Study (Optional)

Hours to Degree at The University of Southern Mississippi: 124 hours are needed to graduate with a BS in Biological Sciences with an emphasis in Biomedical Sciences. At least 50 percent of the hours applied to a degree at The University of Southern Mississippi must be earned from a senior college, and 30 of these hours must be in courses numbered 300 or above. The student must earn at least 21 of the last 30 hours of course work and at least 12 hours in the major area of study from Southern Miss. See Residence Hour Requirements for more information.