

MARINE BIOLOGY DEGREE PLAN rev. Fall 2009

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

GEC 01. Written and Oral Communication (6 hrs) Credit Hours

01. ENG 101	Composition One	3
02. ENG 102	Composition Two	3

GEC 02. Basic Science and Mathematics (11 hrs)

Science Requirement (8 hours)

01. Take 2 science courses with labs		
BSC 110/L*	Principles of Biological Science I & Lab	3/1
BSC 111/L*	Principles of Biological Science II & Lab	3/1

*This particular GEC course is required for this major.

Mathematics Requirement (3 hours)

02. Select 1 course**:		
MAT 314 OR	Calculus for Arts and Science	3
MAT 167	Calculus I with Analytical Geometry	3

**Calculus is required for this major. MAT 314 (Calculus for the Arts and Sciences) is the *non-majors* Calculus course, recommended for students in the Department of Biological Sciences. If students wish to minor or double major in Mathematics, they must take MAT 167 (Calculus I with Analytic Geometry).

Students may enroll in MAT 314 if the ACT mathematics subtest score is ≥ 24 ; otherwise, they must take prerequisite courses, typically MAT 101 (College Algebra) and/or MAT 128 (Precalculus Mathematics). Students may enroll in MAT 167 if the ACT mathematics subtest score is ≥ 26 ; otherwise, they must take prerequisite courses, typically MAT 101 and/or Trigonometry (MAT 103) or MAT 128. Students may take Trigonometry if the ACT mathematics subtest score is ≥ 24 or if they have a grade of C or better in College Algebra.

Starting AY 09-10, entering students with an ACT mathematics subtest score of ≤ 20 must take Intermediate Algebra (MAT 099) during the first semester unless they have a grade of C or better in MAT 101 or an equivalent course.

GEC 03. Global History and Culture (12 hrs)

Social Sciences Requirement (3 hrs)

01. Select 1 course:		
ANT101	The Human Experience	3
GHY 101	World Regional Geography	3
SOC 101	Understanding Society	3

Humanities Requirement (9 hrs)

02. ENG 203	World Literature	3
03. Select 2 courses; 1 History is required		
HIS 101	World Civilizations: Beginnings to 1500 C.E.	3
HIS 102	World Civilizations: 1500 to the Present	3
PHI 151	Introduction to Philosophy	3
REL 131	Comparative Religion	3

GEC 04. Aesthetic Values (3 hrs)

01. Select 1 course:		
ART 130	The Art Experience	3
DAN 130	Dance Appreciation	3
MUS 365	The Enjoyment of Music	3
THE 100	Theatrical Expressions	3

GEC 05. Decision-Making and Responsibility (3 hrs)

01. Select 1 course:		
COH 100	Concepts of Wellness	3
ECO 101	Basic Economics	3
PHI 171	Ethics and Good Living	3
PS 101	American Government	3
PSY 110	General Psychology	3

GEC 06. Computer Competency Requirement (3 hrs)

01. Select one course:		
CSS 211	Statistical Methods I	3
CSS 240	FORTTRAN Programming	3
CSS 330	Introduction to Programming	3
CSS 333	Problem Solving Using C, I	3
PSY 360	Introduction to Statistics for the Behavioral Sciences	3

GEC 07. Writing-Intensive Requirement* (see Major Requirements below)

01. BSC 445/L (WI) Marine Biology & Lab

*Prerequisites: ENG 101 & ENG 102***GEC 08. Oral Communication Requirement (3 hrs)**

01. Select 1 course:

SCM 111	Oral Communication	3
SCM 305	Interpersonal Communication	3
SCM 320	Business and Professional Speaking	3
SCM 330	Small Group Communication	3

GEC 09. Capstone Requirement* (Major Area)

01. BSC 497 Senior Practicum 1

Must be taken Senior Year; ENG 101 & ENG 102 prerequisites

PROGRAM CURRICULUM

DEG 01. Major Area of Study Requirements*TOTAL MAJOR HOURS include BSC 110/L, BSC 111/L, BSC 497, and those listed below.*

01. BSC 201/L	General Zoology & Lab	3/1
02. BSC 370	Genetics	4
03. BSC 380/L	General Microbiology & Lab	3/1
04. BSC 445/L (WI)	Marine Biology & Lab	3/1
05. Physiology (Select 3 hrs)	Credit Hours	Credit Hours
BSC 360	Cellular Physiology	3
BSC 450	Comp. Anim. Physiology	3
BSC 451	Mammalian Physiology	3
BSC 452	Environmental Physiology	3
BSC 453	Invertebrate Physiology	3
06. Ecology/Organisms/Technology (Select at least 3 hours)		
BSC 382	Microbial Ecology	3
BSC 407/L	Biology of Vertebrates	3/1
BSC 408/L	Invertebrate Zoology I	3/1
BSC 409/L	Invertebrate Zoology II	3/1
BSC 414/L	Ichthyology	2/2
BSC 415/L	Biology of Fishes	2/2
BSC 416/L	Intro to Fishery Sci & Lab	2/1
BSC 427/L	Introduction to Phycology	2/2
BSC 430/L	Aquatic & Marsh Plants	2/2
BSC 436/L	Conservation Biol & Lab	3/1
BSC 440/L	Ecology & Lab	3/1
BSC 441/L	Popula & Commun Ecology & Lab	3/1
BSC 446/L	Aquaculture & Lab	2/1
BSC 476	Molecular Biology	3
BSC 478L	Molecular Biology Lab	4
BSC 487/L	Microbial Physiology & Lab	3/1
BSC 489/L	Environmental Micro & Lab	3/1
07. Marine Biology (Select at least 10 hours to be taken during the summer at the Gulf Coast Research Laboratory in Ocean Springs)		
COA 416/L	Mar Fisheries Management & Lab	2/2
COA 421/L	Marine Ichthyology & Lab	3/3
COA 422/L	Elasmobranch Biology & Lab	3/2
COA 424/L	Marine Aquaculture & Lab	3/3
COA 428/L	Marine Invertebrate Zoology	3/3
COA 433/L	Marine Phycology & Lab	2/2
COA 434/L	Coastal Vegetation & Lab	2/1
COA 435/L	Salt Marsh Plant Ecol & Lab	2/2
COA 443/L	Marine Mammals & Lab	3/2
COA 446/L	Marine Ecology & Lab	3/2
COA 447/L	Fauna & Faunistic Ecology & Lab	2/3
COA 453/L	Parasites of Marine Animals & Lab	3/3
COA 456/L	Comp Histology of Mar Animals & Lab	3/3
COA 465/L	Application of Biotechnology & Lab	3/3
COA 471/L	Marine Microbiology & Lab	3/3

DEG 02. Additional Requirements (25 hours)

01. CHE 106/L	General Chemistry I	3/1
02. CHE 107/L	General Chemistry II	3/1
03. CHE 255/L	Organic Chemistry	3/1
04. CHE 256/L	Organic Chemistry	3/2
05. PHY 111/L	General Physics I	3/1
06. PHY 112/L	General Physics II	3/1

DEG 03. Minor Area of Study (Optional)**DEG 04. Electives**

01. Choose electives as needed. (See Hours to Degree below)

Hours to Degree: 124 hours are needed to graduate with a B.S. in Biological Sciences.At least 50% of the hours applied to a degree at The University of Southern Mississippi must be earned from a senior college, and **45** of these hours must be in courses numbered 300 or above.

The last 25% of course work must be earned from The University of Southern Mississippi.

The student must earn at least **12 hours** in the major field of study from The University of Southern Mississippi.