

# BIOLOGICAL SCIENCES DEGREE: Licensure Emphasis Plan rev Fall 2008

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 <b>OR</b>	Calculus for Arts and Science	3
MAT 167	Calculus I with Analytical Geometry	3

\*\*Calculus is required for this major. Students may enroll in Calculus if the ACT mathematics subtest score is  $\geq 26$ ; otherwise, they must take prerequisite courses, typically College Algebra (MAT 101) and/or Trigonometry (MAT 103). Entering freshmen with an ACT mathematics subtest score of  $\leq 16$  must take Intermediate Algebra (MAT 099) during the first semester. Students with an ACT mathematics subtest score of 17-19 are **strongly encouraged** to take Intermediate Algebra before taking College Algebra. Students may take Trigonometry if the ACT mathematics subtest score is  $\geq 24$  or if they have a grade of C or better in College Algebra.

MAT 314 is the *non-majors* Calculus course, recommended for students in the Department of Biological Sciences.

## **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

## **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:		
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\* (Major Area)**

01. BSC 495/L (WI) Application of Concepts for Secondary School		5
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*Prerequisites: ENG 101 & ENG 102*

**GEC 08. Oral Communication Requirement (3 hrs) Credit Hours**

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\* (Teacher Licensure)**

01. SME 489	Student Teaching in Science I	6
02. SME 490	Student Teaching in Science II	6

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

**PROGRAM CURRICULUM****DEG 01. Major Area of Study Requirements**

*TOTAL BSC HOURS (including BSC 110/L, BSC 111/L, BSC 495/L and those listed below) MUST EQUAL 35.*

01. BSC 201/L	General Zoology & Lab	3/1
02. BSC 226/L	General Botany & Lab	3/1
03. BSC 370	Genetics	4
04. BSC 380/L	General Microbiology & Lab	3/1
06. Physiology / Molecular (Select at least 3 hours)		
BSC 360	Cell Physiology	
BSC 431	Plant Physiology	3
BSC 450	Comparative Animal Physiology	3
BSC 452	Environmental Physiology	3
BSC 476	Molecular Biology	3
BSC 487/L	Microbial Physiology & Lab	3/1
07. Ecology (Select at least 3 hours)		
BSC 340	Environmental Biology	3
BSC 382	Microbial Ecology	3
BSC 435/L	Plant Ecology & Lab	3/1
BSC 436/L	Conservation Biology & Lab	3/1
BSC 440/L	Ecology & Lab	3/1
BSC 441/L	Population & Community Ecology & Lab	3/1
BSC 442/L	Behavioral Ecology & Lab	3/1
BSC 443/L	Freshwater Biology & Lab	3/1
BSC 445/L	Marine Biology & Lab	3/1

**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. Teacher Licensure Requirements\*\*\* (27 hours)**

\*\*\*These courses are restricted; Gold Card required.

01. CIS 302	Classroom Management	3
02. CIS 313	Principles of Teaching High School	3
03. REF 469	Tests and Measurements	3
04. SME 460	Methods in Teaching Science - Secondary	3
05. SME 489	Student Teaching in Science I	6
06. SME 490	Student Teaching in Science II	6
07. SPE 400	Psychology and Education of Exceptional Children	3

**DEG 04. Electives**

01. Choose electives as needed with advisor's approval. REF 400, GLY 101, or CHE 471/L recommended.  
(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.