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

GEC 01. Written and Oral Communications (2 courses)  Credit Hours
   01. ENG 101 - Composition One  3
   02. ENG 102 - Composition Two  3

GEC 02. Basic Science Requirement (2 courses & 2 labs)  Credit Hours
   BSC 110/L* - Principles of Biological Sciences I & Lab  3/1
   BSC 111/L* - Principles of Biological Sciences II & Lab  3/1
   *This particular course is required for this major.

GEC 03. Humanities (3 courses)  Credit Hours
   01. REQUIRED: ENG 203 - World Literature  3
   02. SELECT 2 courses from the following list. It is REQUIRED that one of the selected courses be a History course.
       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 from the following list.  Credit Hours
   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 from the following list.  Credit Hours
   ANT 101 - The Human Experience  3
   COH 100 - Concepts of Wellness  3
   ECO 101 - Basic Economics  3
   GHY 101 - World Regional Geography  3
   PS 101 - American Government  3
   PSY 110 - General Psychology  3
   SOC 101 - Understanding Society  3

GEC 06. Mathematics Requirement. SELECT 1 of the following calculus courses.**  Credit Hours
   MAT 114 - Calculus for Arts and Sciences OR  3
   MAT 167 - Calculus I with Analytical Geometry  3

**Calculus is required for this major. MAT 114 is recommended for biology majors. MAT 167 is generally taken by student desiring a minor in mathematics or by students with a second major in mathematics. Students may enroll in MAT 114 if their ACT mathematics subtest score is 24 or higher. Students enrolling in MAT 167 must have an ACT mathematics subtest score of 26 or higher. 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 less than or equal to 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.

GEC 06B. Computer Competency Requirement. SELECT 1 course from the following list.  Credit Hours
   CSS 211 - Statistical Methods  3
   CSS 240 - FORTRAN 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. SELECT 1 course.
   ENG 333 - Technical Writing (WI) OR any upper-level approved writing-intensive (WI) class 3

GEC 08. Oral Communication 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.

PROGRAM CURRICULUM

DEG 01. Major Area of Study Requirements
   TOTAL BSC HOURS MUST EQUAL A MINIMUM OF 41 HOURS, including BSC 110/L, BSC 111/L, and BSC 497. Students must also complete a minimum of three laboratory-based BSC courses at the 300-400 levels. General Microbiology & Lab (DEG. 01.07) may be used as one of the three upper level lab courses if taken at the 300 level.

   01. BSC 197 - First Year Foundations 1
   02. BSC 370 - Genetics 4
   03. BSC 380/L - General Microbiology & Lab 3/1
   04. BSC 476 - Molecular Biology 3
   05. BSC 477/L - Microbial Genetics & Lab 3/1
   06. BSC 478 - Methods in Biotechnology & Lab 3/1
   07. BSC 487/L - Microbial Physiology & Lab 3/1
   08. BSC/CHE Electives - SELECT at least 17 hours from the following list of courses.
      BSC 360 - Cell Biology 3  CHE 311/L - Analytical Chemistry & Lab 3/2
      BSC 457 - Neurobiology 3  CHE 461/L - Physical Chemistry:
      BSC 469/L - Developmental Biology & Lab 3/1  Thermodynamics & Kinetics & Lab 3/1
      BSC 484/L - Virology & Lab 3/1  CHE 462/L - Physical Chemistry:
      BSC 486/L - Immunology & Serology & Lab 3/1  Quantum Chemistry & Lab 3/1

DEG 02. Additional Requirements
   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 3/1
   05. CHE421/L - Biochemistry I & Lab 3/2
   06. SELECT 1 course from the following: CHE 422 - Biochemistry II (3 hours); CHE 451 - Medicinal Chemistry (3 hours); CHE 460 - Pharmacology (3 hours); CHE 470 - Survey of Toxicology (3 hours)
   07. PHY 111/L - General Physics I & Lab 3/1
   08. PHY 112/L - General Physics II & Lab 3/1

DEG 03. Minor Area of Study (Optional)

DEG 04. Electives – Choose as needed (see hours to degree below).

Hours to Degree at The University of Southern Mississippi (USM): 124 credit hours are needed to graduate with a B.S. in Biological Sciences. At least 50% of the hours applied to the degree at USM must be earned in a senior college and a minimum of 45 of these hours must be in courses numbered 300 or above. Students must earn at least 25% of the credit hours needed for their degree from USM. Students must earn at least 21 of the last 30 hours of course work from USM. Students must also earn at least 12 hours at the 300-400 course level in their major field of study from USM. The capstone course required for a student's degree must also be completed at USM.