Biology (B.A.)

2014-2015 Catalog Year

Program Admission Requirements

• Submit an FGCU Undergraduate Admission Application and satisfy all applicable university admission requirements.
• Complete common prerequisites with a grade of C or better.
• Attend an orientation session.
• Sign an Advising Agreement document.

Program Requirements

1. FGCU General Education Program (GEP) (36 hrs) Refer to the General Education Program for more information.
   
   A. Communication (6 hrs)
      1. ENC 1101 (3)
      2. ENC 1102 (3)
   
   B. Mathematics (6 hrs)
      1. STA 2023 (3)
      2. MAC 2311 (4) recommended
   
   C. Humanities (9 hrs)
      1. HUM 2510 (3)
   
   D. Social Sciences (6-9 hrs)
   
   E. Natural Sciences (6-9 hrs)
      1. BSC 1010C (4) or BSC 1010 (3) and BSC 1010L (1)
      2. BSC 1011C (4) or BSC 1011 (3) and BSC 1011L (1)
      3. CHM 1045C (4) or CHM 1045 (3) and CHM 1045L (1)

   Note: At least one Natural Sciences course must include a laboratory or field component. Courses meeting this requirement contain a “C” or “L” in their course numbers. Each combined lecture and laboratory course (marked with a C) is equivalent to taking the lecture and laboratory separately.

2. Common Prerequisites

• BSC 1010C General Biology with Lab I (4) or BSC 1010 (3) and BSC 1010L (1) (GEP)
• BSC 1011C General Biology with Lab II (4) or BSC 1011 (3) and BSC 1011L (1) (GEP)
• CHM 1045C General Chemistry with Lab I (4) or CHM 1045 (3) and CHM 1045L (1) (GEP)
• CHM 1046C General Chemistry with Lab II (4) or CHM 1046 (3) and CHM 1046L (1)
• CHM 2210C Organic Chemistry with Lab I (4) or CHM 2210 (3) and CHM 2210L (1)
• CHM 2211C Organic Chemistry with Lab II (4) or CHM 2211 (3) and CHM 2211L (1)
• MAC 2311 Calculus I (4) (GEP)
• MAC 2312 Calculus II (4)

3. Required Courses in the Major (18 hrs)

• BSC 4910C Senior Research Experience (3) or BSC 4911C Senior Research Experience in Biology (2) and BSC 4911C Senior Project Presentation in Biology (1)
• IDS 3300 Foundations of Civic Engagement (3)
• IDS 4910 Integrated Core Senior Seminar (3)
• IDS 3120C Scientific Process (3)
• PCB 3023C Cell Biology (3)
• PCB 3063C Genetics (3)

4. Electives in the Major (30 hrs)

Select one of the following:

• IDS 3143 Issues in Science and Technology (3)
• IDS 3332 Issues in Culture and Society (3)

Select one of the following:

• PCB 3043C General Ecology (3)
• PCB 3673 Evolutionary Biology (3)
• ZOO 3713C Vertebrate Form and Function (3)

Select 24 hours from the following:

• ANS 3440 Animal Nutrition (3)
• ANT 3586C Human Evolution (3)
• BCH 3023C Biochemistry (3)
• BCH 3025C Analytical Biochemistry (3)
• BOT 3015C The Lives of Plants and Algae (3)
• BOT 4394C Plant Molecular Biology (3)
• BOT 4503C Plant Physiology (3)
• BSC 1930L Seminar in Medicine I (1)
• BSC 2930L Seminar in Medicine II (1)
• BSC 3030 Biology and Society (2)
• BSC 3303 Biogeography (3)
• BSC 3367C Tropical Island Biology (3)
• BSC 3403C Environmental Quant Tech (3)
• BSC 4052 Conservation Biology (3)
• BSC 4422C Methods in Biotechnology (3)
- BSC 4900 Dir Indep Study/Research Biology (1-3)***
- BSC 4910C Sr Project Research in Biology (2)
- BSC 4911 Sr Project Presentation in Biology (1)
- BSC 4912 Senior Seminar in Biology (3)
- BSC 4930 Special Topics in Biology (3)
- BSC 4933 Current Topics in Biology (1)****
- BSC 4940 Internship in Biology (1-3)***
- CHM 2210C*** Organic Chemistry with Lab I (4)
- CHM 2211C*** Organic Chemistry with Lab II (4)
- EVR 4920 Current Topics in Environmental Studies (1)***
- FYS 4814C Environmental Toxicology (3)
- HIS 3470 History of Science and Technology (3)
- ISC 4930 Current Topics (1)
- MAC 2312** Calculus II (4)
- MCB 3020C General Microbiology (4)
- MCB 3652C Environmental Microbiology (3)
- MCB 4203C Pathogenic Microbiology (3)
- MCB 4223C Food Microbiology (3)
- MCB 4502C Virology (3)
- MCB 4507C Virology, Mycology & Parasitology (3)
- OCE 4633C Marine Ecology (3)
- OCE 3008C Oceanography (3)
- PCB 3043C* General Ecology (3)
- PCB 3414C Behavioral Ecology (3)
- PCB 3460C Ecosystem Monitoring and Res Meth (3)
- PCB 3673* Evolutionary Biology (3)
- PCB 3703C Human Physiology (3)
- PCB 3723C Comparative Animal Physiology (3)
- PCB 411xC Molecular Techniques in Behavioral Ecology (3)
- PCB 4xxC Comparative Immunology
  - PCB 4233C Immunology (3)
  - PCB 4253C Developmental Biology (3)
  - PCB 4303C Limnology and Wetlands (3)
  - PCB 4522C Molecular Genetics (3)
  - PCB 4674C Reptile-Amphibian Evolution (4)
  - PCB 4714C Comparative Immunology (3)
- PCB 4783C Cell Membrane Physiology (3)
- PHY 2048C** General Physics with Lab I (4) or PHY 2053C** College Physics I with Lab (4)
- PHY 2049C** General Physics with Lab II (4) or PHY 2054C** College Physics II with Lab (4)
- ZOO 3205C Invertebrate Zoology (3)
- ZOO 3713C* Vertebrate Form and Function (3)
- ZOO 3733C Human Anatomy (3)
- ZOO 4272C Ornithology (3)
- ZOO 4422C Herpetology (3)
- ZOO 4436C Evolution of the Mammals (3)
- ZOO 4454C Ichthyology (3)
- ZOO 4480C Mammalogy (3)
- ZOO 4513C Animal Behavior (3)
- ZOO 4743C Neuroscience (3)
- ZOO 4753C Histology (3)

** Courses taken to satisfy common prerequisites cannot be counted as an elective.

* Courses taken in one elective category cannot be used to satisfy another elective category.

*** A maximum number of four credits combined from these courses can be used to fulfill the elective requirement.

**** A maximum number of two credits combined from these courses can be used to fulfill the elective requirements.

5. University Requirements (3 hrs)

- IDS 3920 University Colloquium (3)

6. Additional Electives (variable)

TOTAL SEMESTER HOURS REQUIRED: 120 HRS

Additional Graduation Requirements

- A minimum of 120 credit hours.
- A minimum of 48 of the 120 hours must be at the upper division (3000 - 4999) level.
- A cumulative GPA of 2.0 for all coursework attempted at FGCU.
- A minimum grade of C for each course used to satisfy the following categories: common prerequisites, required courses in the major, and electives in the major.
- Satisfaction of the Communication and Computation Skills and foreign language entrance requirements.
- Satisfaction of the Service Learning requirement (See www.fgcu.edu/connect).
- Satisfaction of the residency requirement: thirty of the last sixty credits must be completed at FGCU.
- Completion of the summer course enrollment requirement.
- Submit an Application for Graduation by the deadline listed in the FGCU Academic Calendar.
Transfer Notes and Acceptable Substitutes

- The following substitutes are acceptable for common prerequisites and must be completed with a grade of C or better.
- BSC 1010C: may substitute BSC X010/X010L (4) or BSC X010C (4), or BSC X040/X40L (4), or PCB X011C (4)
- BSC 1011C: may substitute BSC X011/X011L (4) or BSC X011C (4) or BSC X041/X041L (4)
- CHM 1045C: may substitute CHM X045/X045L (4) or CHM X045C (4) or CHM X040 (3) and CHM X041 (1)
- CHM 1046C: may substitute CHM X046/X046L (4) or CHM X046C (4)
- CHM 2210C and CHM 2211C: may substitute CHM X210/X210L (4) and CHM X211/X211L (4), or CHM X210C (4) and CHM X211C (4) or PHY X053/X053L (4) and PHY X054/X054L (4), or PHY X048/X048L (4) and PHY X049/X049L (4)
- MAC 2311: may substitute MAC X311 (4) or MAC X233 (4), MAC X253 (4), or MAC X281 (4), MAC X241 (4)
- MAC 2312: may substitute MAC X312 (4) or MAC X282 (4) or MAC X234 (4) or STA X023 (3), or STA X024 (4), or STA X321 (4)

For All Majors: Students are strongly recommended to select required lower division electives that will enhance their General Education coursework and that will support their intended baccalaureate degree program. Students should consult with an academic advisor in their major degree area.