PLEASE READ COURSE DESCRIPTIONS in the UNDERGRADUATE COURSE CATALOG (catalog.fiu.edu). Most elective courses have prerequisites that must be taken BEFORE you take the elective course. To see your own progress, you can view your Panther Degree Audit from your My FIU. If you need assistance or have any questions, you are encouraged to see an advisor prior to each registration period by making an appointment via the Panther Success Network. All Biology faculty members serve as biology career advisors and have designated advising times. All Science and Math courses must be completed with a grade of “C” or better to satisfy the requirements.

LOWER DIVISION PROGRAM

☐ UCC –University Core Curriculum (Note: Transfer students with an AA degree from a Florida College System or other Florida State University are exempt from the UCC).

☐ GLOBAL LEARNING REQUIREMENT at Foundation Level and In-field/Discipline Specific Level (consider using upper division courses here)

☐ Students entering the University with fewer than 60 hours must complete 9 hours of coursework during the summer semester

☐ Foreign Language requirements (see page 2)

☐ General Science Requirements (also called Common Prerequisites)

<table>
<thead>
<tr>
<th>General Science Courses</th>
<th>FIU ( ) = credit hours</th>
<th>BC or MDC equivalent</th>
<th>UM Equivalent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Foundations of Biochemistry Prerequisites:BSC2010+CHM045</td>
<td>BCH 2020(3)</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Biological Organization: The Size and Scale of Life Prerequisites:BSC2010+CHM045 Fall 2021</td>
<td>BSC 2300(3)</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>General Biology I and II BSC 2010(3)+Lab(1) BSC 2011(3)+Lab(1)</td>
<td>BSC 2010+Lab or BOT 1010+Lab</td>
<td>BOT 1010+Lab BIL 150 +151Lab</td>
<td></td>
</tr>
<tr>
<td>General Chemistry I and II CHM 1045(3)+Lab(1) CHM 1046(3)+Lab(1)</td>
<td>CHM 1045+Lab or CHM 1040+Lab</td>
<td>CHM 1046+Lab CHM 1041+Lab CHM 111 +113Lab</td>
<td></td>
</tr>
<tr>
<td>General Physics I PHY 2053(4) using algebra and trigonometry or PHY 2048(4) using Calculus 1 and 2.</td>
<td>PHY 2053</td>
<td>PHY 101</td>
<td></td>
</tr>
<tr>
<td>Mathematics - Students must complete sub-requirements (A) and (B) (A) Pre-Calculus Algebra and Trigonometry MAC 1147 (4)</td>
<td>MAC 1147</td>
<td>MTH 105 or MTH 108</td>
<td></td>
</tr>
<tr>
<td>or MAC 2311</td>
<td>or MAC 2311</td>
<td>MTH 111 or MTH 131</td>
<td></td>
</tr>
<tr>
<td>(B) Statistics I STA 3111(3) or STA 2122(3)</td>
<td>STA 2023</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
UPPER DIVISION PROGRAM (≈ 34 credits)

☐ Required Courses
☐ PCB 3043  Ecology (L*)
☐ PCB 3063  Genetics (L*)
☐ PCB 4674  Evolution
☐ BSC 4931  Senior Seminar

☐ Prerequisites
BSC 2010 + 2011
BSC 2010
PCB 3043 + PCB 3063
PCB 3043+3063+4023+4674

☐ Credits
3
3
3
1
10

7 Upper Division Elective Courses - Distribution Requirement - One Elective course in each of the following Areas**

☐ A. Ecology Area
☐ B. Organismal Diversity Area
☐ C. Physiology/biochemistry Area
☐ D. Structure/Development Area
☐ +3 upper division electives in any of these areas

☐ Credits
3
3
3
3
9
21

☐ Laboratory Requirement - 3 Upper Division Labs (2cr labs=1 lab)
3 or more

Please take labs that support upper division courses needed for your career goals

☐ Track Specific Courses - (18) credits. Please see page 4 for track lists

College of Arts, Sciences, and Education Requirements

☐ Credit hours of courses outside the major required within the last 60 hours of enrollment
Note: Take these 9 credit hours from upper division courses to help you reach the 45 hours needed for graduation Ex. 35 + 9 = 44 upper division credit hours

☐ Upper Division hours required
45

☐ Total credit hours required for graduation (University Requirement)
120

**Refer to course catalog for list of courses not applicable to the upper division Major electives.

ELECTIVES COURSES - DISTRIBUTION REQUIREMENT – Summer and Fall 2021

(L*)-Indicates that lab is being offered this term along with the lecture
Courses listed may be subject to change. Please confirm course availability by searching for courses on your MyFIU.

BSC 4473C - Introduction to Scientific Diving Prerequisites: (OCB3043+lab or PCB3043+lab or CHS4600 or OCE3014), open water diving certification, permission of the instructor, FIU Diving Medical clearance, pass standardized swim test, at least 18 years old. Lab fee of $1,158 applied.

BSC 3941 - Biological Sciences Research Internship: Supervised, practical experience in a professional, laboratory or field setting in which biologists may work. Instructor permission is required. This does NOT fulfill any lab or elective lecture requirement for Biology Majors or Minors.

- BSC 4996L - Computational Biology Lab of Emerging Infectious Disease: Being offered Summer 2021.
- BSC 3466L - Make Your Mutant (Corequisite: PCB 3063 or BCH 3033): Being offered Fall 2021.

A. ECOLOGY

<table>
<thead>
<tr>
<th>Summer 2021</th>
<th>Prerequisites (Grades of C or higher in)</th>
</tr>
</thead>
<tbody>
<tr>
<td>BSC 4363</td>
<td>Biodiversity in the Caribbean Basin</td>
</tr>
<tr>
<td>OCB 4633</td>
<td>Marine Community Ecology</td>
</tr>
<tr>
<td>PCB 3374</td>
<td>Tropical Ecology</td>
</tr>
<tr>
<td>PCB 4414</td>
<td>Behavioral Ecology</td>
</tr>
<tr>
<td>BOT 4601</td>
<td>General Plant Ecology *GL</td>
</tr>
<tr>
<td>BSC 4304</td>
<td>Environments of the Past</td>
</tr>
<tr>
<td>BSC 4363</td>
<td>Biodiversity in the Caribbean Basin</td>
</tr>
<tr>
<td>OCB 3043</td>
<td>Marine Biology Oceanography (*L)</td>
</tr>
<tr>
<td>OCB 4070</td>
<td>Coastal Marine Conservation</td>
</tr>
<tr>
<td>OCB 4104C</td>
<td>Field Methods in Marine Ecology</td>
</tr>
<tr>
<td>OCB 4633</td>
<td>Marine Community Ecology</td>
</tr>
<tr>
<td>PCB 3374</td>
<td>Tropical Ecology</td>
</tr>
<tr>
<td>PCB 4401</td>
<td>Global Change Ecology: How humans changed the face of Earth</td>
</tr>
<tr>
<td>PCB 4414</td>
<td>Behavioral Ecology</td>
</tr>
<tr>
<td>PCB 4452</td>
<td>Introduction to Wetland Ecology and Management</td>
</tr>
<tr>
<td>PCB 4462C</td>
<td>Introduction to Landscape Ecology with GIS</td>
</tr>
<tr>
<td>PCB 4467C</td>
<td>Marine Protected Areas *GL</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Fall 2021</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>BSC 4304</td>
<td>Environments of the Past</td>
</tr>
<tr>
<td>BSC 3043</td>
<td>Marine Biology Oceangraphy (*L)</td>
</tr>
<tr>
<td>OCB 4070</td>
<td>Coastal Marine Conservation</td>
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<tr>
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</tr>
<tr>
<td>PCB 4467C</td>
<td>Marine Protected Areas *GL</td>
</tr>
</tbody>
</table>

Updated 04/01/2021
### B. ORGANISMAL DIVERSITY

**Summer 2021**
- **BSC 4434** Bioinformatics for Biologists
  - Prerequisites: BSC2010, BSC2011, PCB3063
- **MCB 3020** General Microbiology (*L)
  - Prerequisites: CHM2210, BSC2010, and BSC2011
- **ZOO 4234** General Parasitology (*L)
  - Prerequisites: BSC 2010, Corequisite: ZOO4234L

**Fall 2021**
- **BOT 3154** Local Flora (*L)
  - Prerequisites: BOT1010 or BSC2011, Corequisite: BOT3154L
- **BOT 3663** Tropical Botany
  - Corequisite: BOT3663L
- **BSC 4434** Bioinformatics for Biologists
  - Prerequisites: BSC2010, BSC2011, PCB3063
- **MCB 3020** General Microbiology (*L)
  - Prerequisites: CHM2210, BSC2010, and BSC2011
- **ZOO 4234** General Parasitology (*L)
  - Prerequisites: BSC 2010, Corequisite: ZOO4234L

### C. PHYSIOLOGY/BIOCHEMISTRY

**Summer 2021**
- **BCH 3033** General Biochemistry (*L)
  - Prerequisites: CHM2211, BSC2010
- **CHM 4304** Biological Chemistry I (*L)
  - Prerequisites: CHM2211, CHM2211L
- **MCB 4503** Virology
  - Prerequisites: CHM2210, PCB3063
- **PCB 3702** Intermediate Human Physiology (*L)
  - Prerequisites: BSC2010 or BSC2011
- **PCB 4232** Biology of AIDS
  - Prerequisites: BSC2010, BSC2011, CHM1045, CHM1046
- **PCB 4717** Topics in Physiology/Biochemistry (RVC)-Biology of Stress
  - Prerequisites: BSC2010, BSC2010L and BSC2011, BSC2011L
- **PCB 4717** Topics in Physiology/Biochemistry (U01)-Urban Vector Biology/Epidemiology
  - Prerequisites: BSC2010, BSC2010L and BSC2011, BSC2011L

**Fall 2021**
- **BCH 3033** General Biochemistry (*L)
  - Prerequisites: CHM2211, BSC2010
- **BOT 4503** Plant Physiology
  - Prerequisites: BSC2010, BSC2010L, BSC2011, CHM2210
- **BSC 4443** Functional Genomics and Proteomics
  - Prerequisites: PCB3063
- **CHM 4304** Biological Chemistry I (*L)
  - Prerequisites: CHM2211, CHM2211L
- **PCB 3702** Intermediate Human Physiology (L*)
  - Prerequisites: BSC2010 or BSC2011
- **PCB 3703** Human Physiology I (*L)
  - Prerequisites: BSC2010
- **PCB 4233** Immunology
  - Prerequisites: PCB3063
- **PCB 4234** Biology of Cancer
  - Prerequisites: PCB3063, PCB3043
- **PCB 4717** Topics in Physiology/Biochemistry (U01)-Urban Vector Biology/Epidemiology
  - Prerequisites: BSC2010, BSC2010L and BSC2011, BSC2011L

### D. STRUCTURE/DEVELOPMENT

**Summer 2021**
- **BSC 4401** Principles of Forensic Biology
  - Prerequisites: BSC2010
- **BSC 4422** Biotechnology: Applications in Industry, Agriculture and Medicine
  - Prerequisites: PCB3063
- **PCB 4663** General Human Genetics
  - Prerequisites: BSC2010 or BSC 2023 or PCB 2099 or MCB 2000 or HSC 3549
- **ZOO 3731** Human Anatomy (*L)
- **ZOO 3753** Histology (*L)
  - Prerequisites: BSC2010, CHM2210, CHM2211
- **ZOO 4733** Survey of Regional Anatomy
  - Prerequisites: BSC2011, BSC2011L, CHM1046, CHM1046L, PHY2054 or PHY2049

**Fall 2021**
- **BSC 4422** Biotechnology: Applications in Industry, Agriculture and Medicine (*L)
- **PCB 4253** Developmental Biology
  - Prerequisites: PCB3063 or BCH3033
- **PCB 4663** General Human Genetics
  - Prerequisites: PCB3063
- **ZOO 3713C** Comparative Vertebrate Anatomy
  - Prerequisites: BSC2010, BSC2011
- **ZOO 3731** Human Anatomy (*L)
  - Prerequisites: BSC 2010 or BSC 2023 or PCB 2099 or MCB 2000 or HSC 3549
  - Corequisite: ZOO3731L
Transfer Students

Transfer students with >60 credits, must take half of their upper division credits at FIU.

A maximum of 60 lower division semester hours taken at a two-year or a four-year institution may be counted toward the degree. A maximum of 30 upper division semester hours taken at a senior institution may be counted toward the degree.

Lower division courses in excess of 60 semester hours may serve to meet specific course requirements for the degree, but credit hours represented by these courses will not reduce the number of credit hours to be completed at the University.

Foreign Language Requirement

FIU Flent/Flex requirement — 2 years of high school foreign language satisfy Flent/Flex

All students graduating from Florida International University must meet the state-mandated foreign language requirement. The FLENT/FLEX requirement can be met if students have completed two years of the same foreign language in high school prior to their admission to FIU.

Transfer students may also qualify for an exemption with ANY of the following:
- Appropriate accelerated credit mechanisms (e.g., AP, A-Level, IB, CLEP)
- Transfer credits from a post-secondary institution,
- Two consecutive semesters of one language (levels 1 & 2)
- One intermediate or advanced level language course
- A passing TOEFL score for admission to the University
- Foreign Credentials (e.g, High School transcript from Non-English speaking country)
- A previously earned Bachelor’s degree (regionally accredited)
- An AA degree earned at a FL public institution prior to 1989

Students that do not qualify for any of the above exemptions must complete the foreign language requirement here at FIU, using one of the following options:
- Two introductory level courses (levels 1 & 2)
- One intermediate or advanced level course
- CLEP (Spanish, French and German only)
- FLATS (visit https://info.flats.byu.edu/list-of-languages/ to view the complete list of FLATS exams)

Civic Literacy Requirement: Beginning in the 2018-2019 school year and thereafter, all first-time-in-college baccalaureate seeking students entering a State University System institution must demonstrate civic literacy by satisfying the State of Florida’s, civic literacy requirement. Students at FIU can satisfy the civic literacy requirement by successful completion of any one of AMH2020 or POS2041, or by achievement of the standard score on one of the following assessments:

a. Advanced Placement (AP) — Government & Politics: United States (Min score of 3)

b. Advanced Placement (AP) — United States History (Min score of 4)

c. CLEP — American Government (Min. score of 50)

d. Florida Civic Literacy Test (CIV 2222) — (Min. score of 60). CIV 2222 will be proctored and administered through the University Testing Centers at MMC and BBC. This test will be offered to FIU students free of charge on specified dates each semester. Students who choose to test outside of the designated dates may test on a walk-in basis. Sign up to take the CIV 2222 test at FIU.

Students are strongly encouraged to fulfill this requirement before the end of their first year. No baccalaureate seeking student admitted during the 2018-2019 school year and thereafter, may graduate from FIU without first having met this requirement.

Pre-Medical, Dental, Optometry, Physician Assistant, Pharmacy, Podiatry and Veterinary Curricula

Students who have fulfilled the requirements for the BS in Biology will also have satisfied most of the course requirements for admission to the above mentioned professional schools. Interested students should consult a Pre-Medical Advisor (DM 337, 305-348-0515; preprof@fiu.edu) for arranging a curriculum to enhance their potential to gain admission to these professional schools.

Enrollment Status — for continuous enrollment in a semester, dropping courses can change enrollment status. Contact the Registrar for more details. Contact Financial Aid for various regulations.

Full time = 12 to 18 credits. Normal load = 15 credits; registration for more than 18 credits requires Dean Designee Approval.

Half time = 6-11 credits; Less than Half time = 5 credits or less.

Track Specific courses — Six courses in the specified track must be completed

<table>
<thead>
<tr>
<th>Allied Health Profession Track (ALLHLTPro)</th>
<th>Science Communication Track (SCICOM)</th>
<th>Health Policy, Environmental Policy and Pre-Law Track (HLTENVLAW)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANT 3460 Medical Anthropology</td>
<td>COM 3110 Business and Professional Communication</td>
<td>AMH 3630 Environmental History of the United States</td>
</tr>
<tr>
<td>ANT 4486 Anthropological Approaches to Global Health</td>
<td>ENC 3213 Professional and Technical Writing</td>
<td>CLI 3512 The Courts</td>
</tr>
<tr>
<td>ANK 3110 Exercise Physiology</td>
<td>ENC 3311 Advanced Writing and Research</td>
<td>ENC 4331 Advanced Writing and Research</td>
</tr>
<tr>
<td>CJP 4114 Psychopathology</td>
<td>ENC 3363 Writing About the Environment</td>
<td>ENC 4241 Scientific Writing</td>
</tr>
<tr>
<td>CJP 2008 Human Growth and Development: Introductory Developmental Psychology</td>
<td>ENC 3456 Writing and New Media</td>
<td>ENC 4260 Advanced Professional Writing</td>
</tr>
<tr>
<td>ECO 4504 Intro to Public Finance</td>
<td>ENC 4241 Scientific Writing</td>
<td>ENC 4537 How To Go Public</td>
</tr>
<tr>
<td>HIS 4982 History of U.S. Health Policy</td>
<td>ENC 3457 How To Go Public</td>
<td>ENC 3509 How We Know What We Know – GL</td>
</tr>
<tr>
<td>PAF 3034 Policy Development and Implementation</td>
<td>MNC 3122 Writing Fundamentals for Communicators</td>
<td>MNC 3512 Writing Fundamentals for Communicators</td>
</tr>
<tr>
<td>PCB 3703 Human Physiology</td>
<td>MNC 3620 Media and Sustainability</td>
<td>ENC 3311 Advanced Writing and Research</td>
</tr>
<tr>
<td>PCB 3704 Human Physiology Lab</td>
<td>MNC 4090 Special Topics</td>
<td>ENC 3354 Writing as Social Action</td>
</tr>
<tr>
<td>POS 3424 The Legislative Process</td>
<td>ENC 3338 Environmental Journalism: Communicating Environmental Issues in South Florida</td>
<td>ENC 3371 Rhetorical Theory and Practice</td>
</tr>
<tr>
<td>HSC 3537 Medical Terminology</td>
<td>ENC 3350 Environmental Journalism: Communicating Environmental Issues in South Florida</td>
<td>ENC 3431 Writing, Rhetoric, and Community</td>
</tr>
<tr>
<td>HSC 3549 Clinical Physiology for Health Professionals</td>
<td>ENC 4930 Special Topics in Composition</td>
<td>ENC 3490 Special Topics in Composition</td>
</tr>
<tr>
<td>HSC 4553 Fundamentals of Pathology</td>
<td>ENC 4930 Special Topics in Composition</td>
<td>GEO 4354 Geography of the Global Food System - GL</td>
</tr>
<tr>
<td>HUN 2201 Principles of Nutrition</td>
<td>ENC 4930 Special Topics in Composition</td>
<td>INR 4350 International Environmental Politics</td>
</tr>
<tr>
<td>PET 3310 Kinesiology</td>
<td>ENC 4930 Special Topics in Composition</td>
<td>PAD 3036 Policy Development and Implementation</td>
</tr>
<tr>
<td>PSY 2012 Introductory Psychology</td>
<td>ENC 4930 Special Topics in Composition</td>
<td>PHI 2100 Introduction to Logic</td>
</tr>
<tr>
<td>ZOO 3731 Human Anatomy</td>
<td>ENC 4930 Special Topics in Composition</td>
<td>PHI 2103 Critical Thinking</td>
</tr>
<tr>
<td>ZOO 3731 Human Anatomy</td>
<td>PHI 4130 Symbolic Logic</td>
<td>POS 3283 The Judicial Process</td>
</tr>
<tr>
<td></td>
<td></td>
<td>POS 3603 Constitutional Law: Powers</td>
</tr>
</tbody>
</table>

*Students must meet with advisor to declare their track. All Biology BA Majors MUST be declared in one of the four tracks.*

Updated 04/01/2021