# Bachelor of Science in Environmental Science - S600

**Program Description:** The Bachelor of Science (BS) in environmental science is designed for students that wish to pursue a career as a laboratory/field technician and/or progress to a graduate degree program (MS or PhD). The curriculum will provide the students with a foundational understanding of science, critical thinking skills, experiential learning, ethics and specific technical knowledge and skills required to work in the laboratory or the field. The Biosecurity track focuses on ecology, entomology, plant science, genetics and other aspects of environmental science. An optional Advanced Technical Certificate in Geographic Information Systems (GIS) provides additional discipline skills and knowledge that will make them competitive for employment within the environmental and biological science workforce.

**Career Pathway**: Science, Technology, Engineering, and Math (STEM)

**Program Entrance Requirements:** Entry requires completion of an AA/AS degree or transfer of 60+ credits (including general education) from another accredited institution. Applicants must have:

- a cumulative grade point average of 2.5 on a 4.0 scale
- submit a letter of recommendation
- submit all transcripts from previous institutions
- be approved by the Environmental Science department.
- Completed the following courses with a C or higher:
    - BSC2010, Introduction to Biology I
    - BSC2010L, Introduction to Biology I Lab
    - Chemistry
        - CHM1045
    - Chemistry lab
        - CHM1045L
    - (Biosecurity Concentration)2000+ level biology with lab
        - BSC2011 or ZOO2010 or BOT2010 or MCB2010 or ORH2527
    - (Physical Science Concentration) ESC 1000 or GLY2010 or PSC 1121 (all with lab)
    - Statistics (STA2023) must be completed prior to entry or during the first year of baccalaureate study

**Additional Program Information**: This program collaborates with the University of Florida Ft. Lauderdale REC. Electives and certain courses will be taken as a transient student through UF. Completion of the degree requires BSC4911 (senior research) /BSC4948 (Senior Internship) for Biosecurity concentration or PSC4912 (senior research) /PSC4948 (Senior Internship) for Physical Science concentration.

**Related Industry Certifications**: N/A

**Foreign Language Requirement**: Students must successfully complete the foreign language requirement as prescribed in college policy and the college catalog.

**Location(s):** General Education courses can be taken at any college location. Some program specific courses may only be available at the a. Hugh Adams Central Campus. Please consult the course schedule for specific semester locations.

**Contact information**: Program contact information can be found at www.broward.edu/academics/programs/Pages/science-technology-math-engineering-STEM.aspx

**Required Courses (Physical Science concentration)**

| | | | | | |
|---|---|---|---|---|---|
| GLY4825 | Hydrogeology | 3 | PCB4454C | Biostatistics with Lab | 4 |
| GLY4825 | Hydrogeology Lab | 1 | PCB4043 | Ecology | 3 |
| OCE3008 | Advanced Oceanography | 3 | MET4700 | Atmospheric Processes | 3 |
| SWS3022 | Introduction to Soil Science | 3 | PSC4912/ BSC 4911 | Senior Research | **or** |
| BSC4846 | Scientific Communication | 3 | PSC/BSC4948 | Senior Internship | 3 |
| GLY4746 | Global Environmental Change | 3 | GIS Courses | | 6 |
| GLY4203 | Environmental Geology and Lithospheric processes | 3 | Electives | | 19 |
| GLY4731 | Coastal and Marine Science | 3 | | | |

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**Recommended Course Sequencing (Physical Science Concentration)**

**First Year Term I**

| | | |
|---|---|---|
| GIS Course* | | 3 |
| GIS Course* | | 3 |
| GLY4825 | Hydrogeology | 3 |
| GLY4825L | Hydrogeology Lab | 1 |
| OCE3008 | Advanced Oceanography | 3 |
| Electives | | 3 |
| | **Total Term Credit Hours** | **16** |

**First Year Term II**

| | | |
|---|---|---|
| BSC4846 | Scientific Communication | 3 |
| SWS3022 | Introduction to Soil Science | 3 |
| Electives** | | 8 |
| | **Total Term Credit Hours** | **14** |

**Second Year Term I**

| | | |
|---|---|---|
| GLY4746 | Global Environmental Change | 3 |
| GLY4731 | Coastal and Marine Science | 3 |
| PCB4043 | Ecology | 3 |
| PCB4454C | Biostatistics with Lab | 4 |
| Elective** | | 4 |
| | **Total Term Credit Hours** | **17** |

**Second Year Term II**

| | | |
|---|---|---|
| GLY4203 | Environmental Geology | 3 |
| PCB4454C | Biostatistics with Lab | 4 |
| PSC4911 | Senior Research | **or** |
| PSC4948 | Senior Internship | 3 |
| MET4700 | Atmospheric Processes | 3 |
| Electives** | | 1 |
| | **Total Term Credit Hours** | **13** |
| | **Total Upper Division Credit Hours** | **60** |

**Required Courses (Biosecurity Track)**

| | | | | | |
|---|---|---|---|---|---|
| BSC4846 | Scientific Communication | 3 | PCB4454C | Biostatistics with Lab | 4 |
| ENY3005 | Principles of Entomology | 2 | ALS4163 | Challenges in Plant Resource Protection | 3 |
| ENY3005L | Principle of Entomology Lab | 1 | PLP3002C | Fundamentals of Plant Pathology | **or** |
| ENY4161 | Insect Classification | 3 | ZOO 4234 | Parasitology | 3 |
| PCB4043 | Ecology | 3 | BSC4911 | Senior Research | **or** |
| PCB3063 | Genetics | 3 | BSC4948 | Senior Internship | 3 |
| PCB3063 | Genetics Lab | 1 | GIS Courses | | 6 |
| PCB3023 | Molecular and Cellular Biology | 3 | Electives | | 13 |
| SWS3022 | Introduction to Soil Science | 3 | | | |
| GLY4746 | Global Environmental Change | 3 | | | |

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**Recommended Course Sequencing**

**Biosecurity Concentration**

**First Year Term I**

| | | |
|---|---|---|
| BSC4846 | Scientific Communication | 3 |
| ENY3005 | Principles of Entomology | 2 |
| ENY3005L | Principle of Entomology Lab | 1 |
| ENY4161 | Insect Classification | 3 |
| PCB4043 | Ecology | 3 |
| PCB3063 | Genetics | 3 |
| PCB3063L | Genetics Lab | 1 |
| | **Total Term Credit Hours** | **16** |

**First Year Term II**

| | | |
|---|---|---|
| PCB3023 | Molecular and Cellular Biology | 3 |
| SWS3022 | Introduction to Soil Science | 3 |
| GIS 1040c | Introduction to GIS I | 3 |
| GIS 1042c | Introduction to GIS II | 3 |
| Elective** | | 3 |
| | **Total Term Credit Hours** | **15** |

**Second Year Term I**

| | | |
|---|---|---|
| GLY4746 | Global Environmental Change | 3 |
| PCB4454C | Biostatistics with Lab | 4 |
| ALS4163 | Challenges in Plant Resource Protection | 3 |
| PLP3002C | Plant Pathology or Parasitology | 3 |
| | **Total Term Credit Hours** | **13** |

**Second Year Term II**

| | | |
|---|---|---|
| BSC4911 | Senior Research | **or** |
| BSC4948 | Senior Internship | 3 |
| Electives** | | 13 |
| | **Total Term Credit Hours** | **16** |
| | **Total Upper Division Credit Hours** | **60** |

**Notes:** Many courses have specific pre-requisite and co-requisite requirements that must be followed. Students are encouraged to consult the Course Information Table for a detailed list of all requisite requirements.

**Elective Course options – ALS4161, ALS4162, AOM4643, BCH3033, BSC2011, BSC2011L, BOT2010, BOT2010L, CHM1046, CHM1046L, CHM2210, CHM2210L, CHM2211, CHM2211L, ENY3225, ENY3222, ENY3510c, ENY3228, ENY4210, ENY4592, ENY4660, ENY 4660L, ENY4905, EVR 1263, EVR 1858, EVR 2930, FNR4660C, GIS1030, GIS1047C, MAC1114, MAC1140, MAC1147, MAC2233, MAC2311, MAC2312, MAC2313, MAC2104, MAP2302, MCB2010, MCB2010L, ORH 2527, ORH3513, ORH4256, PCB3401c, PCB4303, PCB 4341c, SWS2242c, SWS3022L, SWS4223, SWS4116, SWS4223, ZOO2010, ZOO2010L

***General Education Courses will vary based on a student's transcript.***

**Students are strongly encouraged to meet with an advisor to create an educational plan.**