

## **BSC. MAJOR IN ECOLOGY**

The purpose of the Ecology Major is to produce graduates who (1) understand the structure, function and interconnectivity of terrestrial, coastal, and marine ecosystems; and (2) can apply their knowledge to competently address the ecological challenges that currently face the Caribbean.

Students will get to:

- Understand how organisms interact with the different components of their environment at different levels of the biological organization (from individuals to entire ecosystems).
- Discover patterns and processes within complex biological systems, such as forests and coral reefs.
- Develop creative problem-solving and critical thinking skills in both the field and the classroom.
- Appreciate the relevance of biodiversity to the well-being of Caribbean societies.
- Develop competency in the collection, handling and analysis of ecological data as well as on data reporting.

Students will need ninety-three (93) credits approved by the Faculty of Science and Technology. For the Major, 30 credits from Ecology (i.e., 10 courses) are required.

***Provided below is a complete list of all the courses offered in the Major in Ecology:***

### ***LEVEL I (12 Credits)***

BIOC1015 Introduction to Biochemistry\*  
BIOL1020 Diversity of Life I\*  
BIOL1025 Diversity of Life II\*  
BIOL1030 Introduction to Genetics\*

### ***LEVEL II (12 Credits)***

BIOL2373 Skills for Biologists\*+2  
ECOL2460 Essentials of Ecology\*  
ECOL2461 Caribbean Island Biodiversity\*  
ECOL2462 Marine Biota\*

### ***LEVEL II or III (18 Credits)***

#### ***Six (6) Credits:***

ECOL3461 Ecology of a Changing Planet\*  
ECOL3100 Statistics for Ecologists\*

### ***AND Twelve (12) Credits from the following:***

#### ***Level III ECOL elective courses***

ECOL3460 Biology & Ecology of Coral Reefs  
ECOL3463 Tropical Crop Ecology  
ECOL3462 Behaviour: an Evolutionary Approach  
ECOL3990 Ecology Project (6 credits)

#### ***AND/OR***

ENSC2000 Essentials of Oceanography\*\*  
MICR3266 Ecology of Microorganisms\*\*\*  
BIOC2371 Molecular Techniques  
BIOL2372 Plants for Caribbean Landscapes

\*Required courses

\*\*Requires METE1110 Introduction to Oceans and Climate or ERSC1000 Earth and its Environment.

\*\*\*Requires MICR2260 Essential Microbiology (or MICR2251 General Microbiology) and MICR2261 Eukaryotic Microbes (or MICR2252 Eukaryotic Micro-organisms)

+Ecology Majors must do this course in Semester 2

***+This course is offered in both semesters but it is recommended that Ecology Majors take this course in Semester 2.***

Students wishing to pursue an Ecology Major with a marine-focus may select ENSC2000 Oceanography and ECOL 3460 Biology and Ecology of Coral Reefs. Students wishing a more terrestrial focus to their Ecology Major may select ECOL3462 Behaviour: An Evolutionary Approach and ECOL 3463 Tropical Crop Ecology. The Ecology offerings are completed by two further compulsory courses; one which exposes students to the impacts of humankind on biodiversity (ECOL3461 Ecology of a Changing Planet) and one which develops methodological and analytical skills (ECOL3100 Statistics for Ecologists).

Students following this Major who have passed BIOL1010 Basic Skills for Biologists cannot take BIOL2373 Skills for Biologists but must substitute this course with any BIOC/BIOL/ECOL/MICR level 2 or 3 course.

### ***MINOR IN ECOLOGY [Fifteen (15) Credits]:***

ECOL2460 Essentials of Ecology

ECOL2461 Caribbean Island Biodiversity

ECOL2462 Marine Biota

ECOL3461 Ecology of a Changing Planet

***AND Three (3) credits from the following:***

ECOL3100 Statistics for Ecologists

ECOL3460 Biology & Ecology of Coral Reefs

ECOL3462 Behaviour: An Evolutionary Approach

ECOL3463 Tropical Crop Ecology

If students want to advance their career as a/an:

- Environmental Consultant
- Wildlife Manager
- Protected Area Manager
- Eco-diplomat
- Eco-tourism Operator
- Science Teacher
- Biosafety Officer
- Conservation Scientist
- Marine Biologist
- Or even continue on to the postgraduate programme

Then this degree is for you!

For further details on the Ecology programme, contact Dr. Henri Vallès (Ecology Coordinator) via email at [henri.valles@cavehill.uwi.edu](mailto:henri.valles@cavehill.uwi.edu), or via telephone at (246) 417-4361.