BSC. MAJOR IN ENVIRONMENTAL SCIENCE

The Major in Environmental Science, offered through the Department of Biological & Chemical Sciences, is designed for Science students who are interested in the environment as an area of application. It allows students to develop knowledge and skills that will allow them to contribute to regional and global issues such as Ocean Health, Climate Change, Water Quality, Sustainable Energy, and Natural Hazards.

Environmental Science Majors develop knowledge and skills that allow students to contribute to international and regional needs in areas such as:

- Biodiversity
- Climate Change
- Coastal Management
- Environmental Law
- Geology/Geologic Stability
- Natural Hazards
- Ocean/Marine Health
- Pollution Assessment
- Sustainable Development
- Water Quality/Management

Students are required to take:

- Essentials of Oceanography
- Introduction to the Earth-Life System
- Earth's Climate

And choose from the following to complete the 30-credit requirement:

- Sustainable Energy Systems
- Natural Hazards
- Climate Variation and Change
- Environmental Health
- Environmental Ethics
- Chemistry of the Environment
- Environmental Chemistry and Toxicology
- Caribbean Island Biodiversity
- Essentials of Ecology
- Caribbean Environmental Law

- Case Study in Environmental Science
- Research Project in Environmental Science

Provided below is a complete list of all the courses offered in the Major in Environmental Science:

MAJOR IN ENVIRONMENTAL SCIENCE:

LEVEL I (6 Credits)

METE1110 Introduction to Oceans and Climate

OR

ENSC1000 Earth and its Environment

AND

ENSC1001 Introduction to Physical Geology: Dynamic Earth

LEVEL II

ENSC2000 Essentials of Oceanography

ENSC2001 Introduction to the Earth Life System ENSC2002 Earth's Climate

AND 21 Credits from Environmental Science Electives Courses:

LEVEL II

ENSC2003 Sustainable Energy Systems

ECOL2461 Caribbean Island Biodiversity

ECOL2460 Essentials of Ecology

CHEM2725 Chemistry of the Environment*

Level III

ENSC3000 Climate Variation and Change

ENSC3001 Natural Hazards and Disasters

METE3500 Bioclimatology#

CHEM3218 Environmental Chemistry and Toxicology

PHIL3110 Environmental Ethics**

HESC3003 Environmental Health**

LAW3450 Caribbean Environmental Law**

ENSC3020 Case Study in Environmental Science***

ENSC3900 Research Project in Environmental Science

*Requires CHEM1125 Introduction to Experimental Chemistry

** No Pre-Requisites

*** Could be run in Semesters I, II or Summer and need approval from Lecturer

#4 Credit Course

MINOR IN ENVIRONMENTAL SCIENCE:

LEVEL I (6 Credits)

METE1110 Introduction to Oceans and Climate

OR

ENSC1000 Earth and its Environment

AND

ENSC1001 Introduction to Physical Geology: Dynamic Earth

AND Fifteen (15) credits from the following:

LEVEL II

ENSC2000 Essentials of Oceanography

ENSC2001 Introduction to the Earth Life System ENSC2002

Earth's Climate

ENSC2003 Sustainable Energy Systems

LEVEL III

ENSC3000 Climate Variation and Change

ENSC3001 Natural Hazards and Disasters

ENSC3900 Research Project in Environmental Science

With a Major in Environmental Science, students can have a career in such fields as:

- Climate Studies/Science
- Conservation
- Ecology
- Environmental Engineering
- Environmental Management
- Environmental Planning
- Geoscience
- Hazard Mitigation
- Hazard Planning
- Hydrology
- Natural Resources
- Oceanography
- Park Ranger
- Soil Science/Conservation

- Sustainability
- Water Resource/Quality Science

The Environmental Science Major also allows students to conduct research in:

- ***Climate***: E.g., Dr. Isabelle Gouirand's research interest is focused on the dynamic processes related to Caribbean climate and the factors influencing the rainfall from seasonal to multi-decadal time scale.
- ***Ocean and Environmental Health***: E.g., Dr. Emma Smith is an expert for the United Nations World Ocean Assessment and is involved in analyzing pollutants in turtle eggs, whale tissues, as well as fish, water, soil, air and human breast milk samples.
- ***Geoscience***: E.g., The multiple award-winning teacher-scholar, Dr. Casey Allen retains expertise in Geomorphology ("Science of Scenery"), Geo/Landscape Archaeology, and promoting fieldwork opportunities locally and internationally for students, especially tied to rock/stone decay and geologic stability of rock art.

Therefore, if students want to:

- Get outside the classroom to engage in cutting-edge field-based research
- Understand how storms, climate, and other hazards affect people
- Harness technology to help manage the environment sustainably
- Understand the environmental issues associated to climate such as drought, atmospheric and ground pollution.

Then this degree is for you!

For further details about the Environmental Science programme, contact Dr. Isabelle Gouirand (Environmental Science Coordinator) via email at isabelle.gouirand@cavehill.uwi.edu, or via telephone at (246) 417-4837.