ENVIRONMENTAL SCIENCE TECHNOLOGY PROGRAM—SAMPLE PROGRAM OF STUDY

*Program Specific Course (Note that some are taught only during a specific semester)

First Year

- **1st Semester (Fall)**

  ENC1101 College Composition (3)
  Designed to develop skills in expressive, expository and persuasive writing, theme construction and style. This course contributes to satisfying the Gordon Rule (State Rule 6A-10.030) writing requirement.

  MAC1105 College Algebra (3)
  Topics include: Polynomial and rational equations and inequalities, graphs of functions, rate of change, transformations, extreme values, modeling, combining functions, one-to-one and inverse functions, exponential functions, logarithmic functions, laws of logarithms, exponential and logarithmic equations, modeling, systems of equations, linear systems in three variables, nonlinear systems of equations, and linear and nonlinear systems of inequalities.  Pre-Reqs: MAT1033

  CHM1025/L Introductory to Chemistry/Lab (4)
  Survey of modern chemistry, designed particularly for those with little or no chemistry background or for those needing an overview of chemistry.  Co-Reqs: ENC1101 AND MAT1033 OR MAC1105 OR STA2023

*GIS2040/L Geographic Information Systems (3)
This course introduces the hardware and software components of a geographic information system (GIS) and reviews GIS applications. Topics include data structures and basic functions, methods of data capture and sources of data, and the nature and characteristics of spatial data and objects.  (Taught in Fall Only)

Behavioral and Social Sciences Core  (3)

- **2nd Semester (Spring)**

  BSC1010/L General Biology I/Lab (4)
  Basic principles, which apply to the nature of plant and animal cells, including metabolism, reproduction, protein synthesis and genetics.  Co-Reqs: ENC1101 AND MAT1033 OR MAC1105 OR STA2023
Cultural Geography (3)

A descriptive study of the location and distribution of people in the world and their cultural characteristics, including: language, religion, and how people use resources and earn their livings. **Co-Req: ENC1101**

Introduction to Oceanography (3)

An introduction to physical oceanography, including geology and hydrology of the world’s ocean basins and the coupling effects of the ocean and atmosphere. **Co-Req: ENC1101**

Energy and its Environmental Effects (3)

This course is a survey course designed to introduce basic physics concepts and applications, with emphasis placed on energy and the environment. **Pre-Reqs: MAC1105 (Taught in Spring only)**

**Summer Semester**

Oral Communications/Research/Presentation Skills (3)

Basic principles of speech communication, including practice with various types and methods of oral expression. **Pre-Reqs: ENC1101**

Elementary Statistics (3)

Topics include: A survey of descriptive statistics and graphs, probability, random variables, confidence intervals, hypothesis testing, sampling, types of distributions, correlation and regression, and statistical applications. **Pre-Reqs: MAC1105 OR MGF2106**

Humanities, Cultural and Aesthetic Elective Core (3)

Second Year

1st Semester (Fall)

Environmental Science/Lab (4)

This is an introductory lecture course linking the human and physical/biological worlds. The course will help students to develop an understanding of population and resource interactions. **Pre-Reqs: BSC1010/L AND CHM1025/L AND MAC1105 (Taught in Fall Only)**

Physical Geology/Lab (4)

Detailed study of the materials comprising the earth’s crust and interior and the forces acting to change its surface; the origin of continents and ocean basins in light of recent geologic research. **Co-Reqs: ENC1101 AND STA2023 OR MAC1105 Pre-Reqs: MAT1033 (Taught Fall Only)**

Meteorology (3)

An introduction to the fundamentals of weather and climate. Topics include temperature, humidity, clouds, precipitation, air masses, fronts, storms, air pollution and climate. Emphasis is on how these processes take place and their results. **Co-Reqs: MAT1033 OR MAC1105 OR STA2023 AND ENC1101**
*PCB2033/L  Introduction to Ecology/Lab (4)

This course explores the natural history, evolution and adaptation of fauna and flora to the environment with special emphasis on ecosystems of East Central Florida. The laboratory portion will stress wetlands ecology utilizing field techniques of sampling, identification, and delineation. Pre-Reqs: BSC1010/L AND MAC1105 AND STA2023 (Taught Fall Only)

- 2nd Semester (Spring)

*OCE2013/L  Aquatic Environmental Science/Lab (4)

This course is organized around the geochemistry of Earth's hydrologic cycle with an emphasis on the principal constituents dissolved in and transported by natural waters. The course is built around field trip(s) and lab work during which students will obtain water quality data from local aquatic environments and create technical reports and presentations based on their data. Pre-Reqs: CHM1025/L AND OCE1001 AND STA2023 AND MAC1105 (Taught Spring Only)

*EVR2861  Environmental Policy (3)

This course surveys the history and current conditions of environmental policy development and decision-making in the U.S. with emphasis on how policy is made and the conceptual structure, practical implementation, and underlying rationale of environmental policies and regulations. This course is designed to provide an overview of general environmental and land use law including permitting, enforcement, toxic substances, and environmental litigation issues. The student will study cases, learn about federal, state and local agencies that regulate and enforce environmental law and policy. Pre-Reqs: EVR2001/L and ENC1101 (Taught Spring Only)

*EVR2933  Environmental Seminar (1)

This course requires that students create a peer-reviewed presentation synthesizing all learned material, sampling methods, analytical techniques, and data analysis as well as experiences gained via their Environmental Internship position. Co-Reqs: EVR2943 (Taught Spring only)

*EVR2943  Environmental Internship (3)

This course provides students with meaningful work experience in the field of environmental science. Students may participate in field and laboratory exercises as determined by their assigned employers. Co-Reqs: PCB2033/L AND EVR2933 Pre-Reqs: OCE2013/L (Taught Spring only)

TOTAL........................................................................................................64 CREDIT HOURS

Please contact Dr. Debra Woodall for advising and further information.

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