Environmental Science Cedarville University
Bachelor of Science B.S.

Objectives:

At a time when the land, water, atmosphere, and living creatures are being impacted by increasing human demands for material resources, there is a **significant opportunity and need for environmental scientists** *educated in the liberal arts* and *informed by a biblical environmental stewardship ethic*. The BS degree in Environmental Science (ENVS) at Cedarville University aims to prepare graduates with a good foundation for entering vocations in ecology, conservation biology, ecosystem restoration, environmental education, and graduate study which is often needed for these careers. In particular, the ENVS major has the following aims:

1 As a result of their studies in the natural sciences (i.e. biology, chemistry, mathematics, geology) and the social sciences, our **students will demonstrate a knowledge of the dynamic relationships** among soil, water, air, and biological creatures.

2 Based upon **a variety of learning settings** (i.e. classroom discussion, laboratory and on-site field research, and internships in the public or private sector) our students will become acquainted with pressing environmental issues, published literature, research methodology, data acquisition and analysis, and the role of government in shaping policy.

3 Our students will acquire **a personal awareness** as well as **a professional commitment** to the care of creation based upon the biblical environmental stewardship ethic and thus learn to utilize their professions in environmental science as an opportunity to influence their families, local communities and the Earth as ambassadors in Christ's plan for reconciliation of humans and His creation.

4 Given the interdisciplinary nature of environmental problems, our **students will acquire experience in collaboration** with professionals in the natural sciences, government agencies, and in the private sector through research and internship experiences.

5 Our **students will be prepared for successful acceptance into graduate programs** in environmental science and related fields, and will make successful entry into careers in the environmental sciences.

REQUIRED COURSEWORK:

BIO 1110	Introduction to Biology	4
BIO 1120	General Zoology	4
BIO 2500	General Botany	4
BIO 2600	General Ecology	3
BIO 3800, or BIO 3810	Biological Research, or Biological Research Intern.	2
BIO 4800	Biology Senior Seminar	1
ENVS 1010	Introduction to Environ. Science	1
ENVS 2100	Introduction to GIS	3
ENVS 3200	Ecosystem Science	3
ENVS 3600	Environmental Ethics	3
CHEM 1110	General Chemistry I	4
CHEM 1120	General Chemistry II	4
CHEM 3510	Organic Chemistry I	5
MATH 1710	Calculus I	5
GMTH 2110	Introduction to Biostatistics	3
POLS 3690	Public Policy	3
	Emphasis area (description below)	12
Total		64

ELECTIVE COURSEWORK:

Category 1	Select ≥2 courses from the following: 7 hours	
BIO 2210	Microbiology	4
BIO 3300	Genetics	4
BIO 3710	Biochemistry	4
BIO 3410	Invertebrate Zoology	3
BIO 3420	Vertebrate Zoology	3
BIO 3520	Plant Taxonomy	3
BIO 3610	Environ.Physiol.& Ecol.	4
BIOA 3220	Aquatic Biology	4

Category 2	Select ≥2 courses from the following: 8 hours	
BIO 3610	Environ.Physiol.& Ecol.	4
BIO 4910	Environ. Biology Intern.	2
BIOA 4710	Conservation Biology	4
BIOA 4820	Restoration Ecology	4
BIOA 4870	Forest Ecology	4
BIOA Courses	Additional Au Sable Institute courses with advisor approval.	
CHEM 2210	Analytical Chemistry I	3
CHEM 3210	Environ.Chemistry (or Au Sable Course)	4

Note: Geology Major has been approved so you may have opportunity to enroll in

GEOL-1110 Introduction to Physical Geology

Other Program Requirements
Each student in the major must complete 12 hours in an emphasis area that is an extension of the major. Examples of such tracks include public policy, geoscience, and molecular ecology. At least 8 of these credits must come from 3000 or 4000 level courses. The courses in the emphasis will be selected by the student and his/her advisor and must be approved by the department chair. This set of courses will be sent to the registrar and will become part of the student's academic file.

Credit Hours Summary	
Proficiency Requirements	0-5
General Education Core Requirements	39-42
Major Requirements	79
Cognates	0
General Electives	7-10
Total (minimum, not including proficiency)	**128**