

Office of Academic Affairs
Tarleton State University
January 2003

Master Course Syllabus

Department: Chemistry and Geoscience **Course Prefix/Number:** GEOL 1074

Official Course Title: Introduction to Environmental Science

Master Syllabus Approved by Department on: ____/____/____
Month Day Year

I. Catalog Description

An introduction to the study of the environment. The course will examine air, water, and soil pollution, and pollution remediation. Energy, mineral resources, and land use will be studied. The course will also emphasize a study of the water supply, water use, and water management. Much of the laboratory will focus on land use planning and environmental pollution remediation.

II. Prerequisites

None

III. Expanded Course Description

This course is an introduction to the study of the impact humans have had on the atmosphere, hydrosphere, lithosphere, and biosphere. Major topics include human population growth, air, water and soil pollution, resource utilization, and landscape disruption. The destruction of habitats, the decline of species, extinction of species, and preservation of species are covered in depth. The mandatory lab component of the course focuses on the environment of Erath County and Stephenville. The laboratory exercises examine human population trends, regional ecosystems, soil characteristics, and water characteristics. This course is geared towards freshmen students, and will satisfy one of Tarleton's required lab science courses. The course is required for students in the Geoscience Environmental Science support area.

IV. Intended Student Learning Outcomes

Knowledge outcomes

Upon completion of this course students will:

- * understand the impact humans have had on the environment
- * understand the role resource extraction, utilization, and disposal has on the environment
- * understand human population trends and the factors that affect them
- * understand the control humans have over non-human species, and the impact of this control
- * understand the potential solutions to environmental problems

Skill outcomes

Upon completion of this course students will:

- * be able to plan and carry out a basic environmental study
- * be able to conduct basic soil and water tests

Value outcomes

Upon completion of this course students will:

- * appreciate the power humans have over the environment
- * appreciate the need for preserving the natural environment
- * understand potential future outcomes, based on current human trends and decisions

V. Unless otherwise stipulated in this master syllabus by the department, the following items are subject to faculty discretion as described in each faculty member's individual course outline/syllabus:

Course Requirements (grading/evaluation procedures; class attendance policy; term papers, projects, field assignments; examinations; class participation, etc)

Mid term lecture exams (3 to 5) and a comprehensive final lecture exam. Mandatory exercises (5 to 8), field trips (3 to 5), and talks (1 to 2) constitute the laboratory component.

Required Texts An optional text on environmental science, and a required lab manual.

Department Head Signature/Date

Signature

____/____/____
Date