

Office of Academic Affairs
Tarleton State University
May, 2004

Master Course Syllabus Outline

Department: Chemistry, Geosciences, and Environmental Science

Course Prefix/Number: ES 3503

Official Course Title: Environmental Science

Master Syllabus Approved by Department on: _____/_____/_____
month date year

I. Catalog Description

Integration of existing knowledge of geological, hydrological, and environmental processes associated with environmental management and land-use planning issues; including discussions of surface and subsurface water quality and quantity, soil erosion, solid and liquid waste disposal and flooding. Case studies involving environmental impact analysis.

II. Prerequisites

Prerequisites: GEOL 1054, 1074; CHEM 1054, or approval of department head.

III. Expanded Course Description

This course concentrates on water-related aspects of environmental science particularly pollution and water supply. Pollutants discussed will include nutrients, pesticides, metals with an emphasis on current problems. Additionally solid and hazardous waste disposal is also covered in detail including siting and legal issues. This course is designed for students intending to pursue a career in environmental science as well as students intending to become secondary science educators. It is required of students in the Environmental Science and Hydrogeology tracks in Geoscience.

IV. Intended Student Learning Outcomes

Knowledge outcomes

Upon completion of this course students will:

- understand the scientific, social, and economic aspects of pollution and water supply problems
- understand the history of water problems and how it has led to the development of current legal constraints
- understand how pollutants can migrate, concentrate and how water quality standards are set
- understand the complex legal, social, and scientific problems with waste disposal – solid and hazardous
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Skill outcomes

Upon completion of this course students will:

- be able to find specific information on water pollutants including standards and health information
- be able to find and use scientific material on a variety of subjects
- be able to distill and present complex subjects in a timely fashion

Value outcomes

Upon completion of this course students will have an appreciation of the interaction of technical, political, social, and economic factors in the management of environmental issues.

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.)

Typically 3 tests, presentation, 1-2 field assignments, discussion reports

Required Text(s) Usually none, readings posted with class notes

Department Head Signature/Date:

Signature

_____/____/_____
Date