

COURSE OUTLINE

1. GENERAL

SCHOOL	APPLIED SCIENCES		
DEPARTMENT	ENVIRONMENTAL ENGINEERING		
LEVEL OF STUDY	UNDERGRADUATE		
COURSE UNIT CODE	GE5460	SEMESTER OF STUDY	4 th
COURSE TITLE	ENVIRONMENTAL ENGINEERING		
COURSEWORK BREAKDOWN		TEACHING WEEKLY HOURS	ECTS Credits
LECTURES, LAB EXERCISES, CASE STUDIES		4	4
COURSE UNIT TYPE	SC: Specialization Courses		
PREREQUISITES :	NONE		
LANGUAGE OF INSTRUCTION/EXAMS:	GREEK		
COURSE DELIVERED TO ERASMUS STUDENTS	YES		
MODULE WEB PAGE (URL)	http://geope.teikoz.gr/undergraduate/ug_studies.htm		

2. LEARNING OUTCOMES

Learning Outcomes

This course includes the study of environmental problems related to surface and ground waters, soils, atmosphere, wastewaters and solid wastes, noise, ionized radiation etc. The students will understand the causes and effects of environmental problems and express the perceived problem and its potential solution in quantitative forms. The application of current technology to eliminate or reduce the water, air and land pollution problems is also addressed in this course.

General Skills

Upon successful completion of the programme students will:

- have the basic theoretical and practical knowledge in the fields of the subject area of Geotechnology and Environmental Engineering*
- be able to properly apply the theoretical and practical knowledge acquired during the study period*
- be able to cover a wide spectrum of scientific and technical knowledge related to mining and geotechnical projects as well as the sector of environmental reclamation*
- have gained the necessary competencies to proceed to their second cycle study.*

- Locate, select, organize and document information using appropriate technology and information sources
- Independent work
- Teamwork
- Apply new research ideas
- Respect the natural environment
- Promotion of free, creative and inductive thinking

3. COURSE CONTENTS

1. Introduction
2. Essentials of environmental science and engineering
3. Water resources and supply
4. Wastewaters (municipal, industrial) and their treatment
5. Solid wastes and their management
6. Potential toxic substances in the environment
7. Quantification in environmental science
8. Soil and water pollution and contamination
9. Mineral resources and production of wastes
10. Air pollution
11. Indoor air pollution
12. Toxicity and carcinogenicity
13. Eutrophication

14. TEACHING METHODS - ASSESSMENT

MODE OF DELIVERY	Lectures in classroom	
USE OF INFORMATION AND COMMUNICATION TECHNOLOGY	Utilization of e-class platform	
TEACHING METHODS	<i>Method description</i>	<i>Semester Workload</i>
	Lectures	40
	<i>Self-study activity</i>	20
	<i>Group project</i>	20
	<i>Lab exercises</i>	20
	Total	100
ASSESSMENT METHODS	<ol style="list-style-type: none"> 1. In-class individual assignment and multiple choice test (60%) 2. Group assignment (40%) 	

15. RESOURCES

1. Albanis, Th. (2009). Environmental Pollution and Environmental Technologies. (in Greek).
2. Kungolos, A (2005). Introduction to Environmental Engineering (in Greek).
3. Kuintzis, Th. (2004). Environmental Pollution Control. (in Greek)