



COURSE OUTLINE

(1) GENERAL

SCHOOL	School of Technology		
ACADEMIC UNIT	Department of Environmental Sciences		
LEVEL OF STUDIES	Undergraduate		
COURSE CODE	AY703	SEMESTER	7th
COURSE TITLE	ENVIRONMENTAL PROJECT MANAGEMENT		
INDEPENDENT TEACHING ACTIVITIES	WEEKLY TEACHING HOURS		CREDITS
Teaching Hours		4	5
COURSE TYPE	Specialised general knowledge		
PREREQUISITE COURSES	None		
LANGUAGE OF INSTRUCTION and EXAMINATIONS	Greek		
IS THE COURSE OFFERED TO ERASMUS STUDENTS	No		
COURSE WEBSITE (URL)	https://eclass.uth.gr/courses/ENV_U_181		

(2) LEARNING OUTCOMES

Learning outcomes
<p>The key objectives of a project, set from the outset, are to be completed within the best possible time, with the least possible environmental impact, ensuring its quality up to a predefined level. To achieve these objectives, rational planning, cost-effective planning, efficient organization and management of the project, and the achievement of maximum productivity are essential. Productivity is directly linked to production costs and the time needed to complete the project and indirectly to the quality level of the output. The aim of this course is to provide students with an understanding of the basic characteristics of environmental management so that, through a holistic and sustainable approach, the framework for the proper management of contemporary environmental problems can be created.</p> <p>Upon successful completion of the course, students should be able to:</p> <ul style="list-style-type: none">• Understand basic concepts of environmental project planning and management.• Analyze the assessment of the impact of an engineering project on the environment.• Use environmental indicators in project monitoring.• Evaluate alternative solutions.• Comprehend the concept of project life cycle.• Realize the worth of a telematics environmental management system, which enables the control of an environmental project through a computer or mobile phone application.
General Competences
<ul style="list-style-type: none">• Search for, analysis and synthesis of data and information, with the use of the necessary technology• Decision-making• Working independently• Team work• Respect for the natural environment• Criticism and self-criticism• Production of free, creative and inductive thinking

(3) SYLLABUS

<ul style="list-style-type: none">• Sustainability and sustainable development. Interactions between engineering works and the natural environment. Categories of projects and activities.• Project scope management. Management software and techniques.• Environmental management systems. Environmental management standards.• Project management processes. The Fayol management process. Easton's process. Initiation process. Planning process. Execution, monitoring and control process. Completion process. Process levels.• Project Life Cycle.

- Green Public Procurement. Green Fund - Green Resources.
- Embankment dams. Geological background investigation. Methods of improving geotechnical behaviour.
- Landslides (causes, types, geometric features of landslides, the effect of water on slope stability). Response to landslides. Environmental measures for slope protection. Analysis of slope stability. Monitoring and stabilisation methods.
- Land thrusts and retaining structures. Alternative methods of excavation and stabilization in engineering works.
- Embankments. Embankment compaction, pathology and instrumental monitoring.
- Solid waste disposal sites, landfills for the disposal of waste and residues; design and management of landfills.
- Flood protection projects. Riverbed protection projects.
- Example of environmental project management: Landscape restoration project.

(4) TEACHING and LEARNING METHODS – EVALUATION

DELIVERY	Face-to-face		
USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY	<ul style="list-style-type: none">• Use of PowerPoint slides• View material in video• Communication with students via e-mail• Use of asynchronous distance learning (e-class)		
TEACHING METHODS		Activity	Semester workload
		Lectures	50
		Study and analysis of bibliography	50
		Written work	25
		Course total	125
STUDENT PERFORMANCE EVALUATION	<p>Students' performance is evaluated in the Greek language. The final grade is determined by:</p> <ul style="list-style-type: none">• A written exam (at the end of the semester) that contributes 70% to the final grade, applying one or more of the following evaluation methods: Multiple-choice questions, short-answer questions, problem-solving.• Elaboration of an individual written assignment, in the 2nd half of the semester, which forms 30% of the final grade. The students may present the assignment in class. <p>Final Grade =70% Exam Grade + 30% written assignment Grade</p>		

(5) ATTACHED BIBLIOGRAPHY

- Barnes, G. (2014) *Soil mechanics: Principles and Applications*, (3rd ed). Athens: Klidarithmos Publications. ISBN: 9789604615780. (in Greek)
- Burke, R. (2014) *Project management*, (1st edition). Athens: KRITIKI Publishing S.A. ISBN: 9789602189252. (in Greek)
- Dimitriadi, A. (2009) *Project Management*, (4th Ed). Athens: NewTech-Pub. (in Greek)
- Kavvadas, M. (2013) *Elements of Environmental Geotechnics*. Tsotras Publications. (in Greek)
- Kostopoulos S. D. (2008) *Geotechnical Structures II*, (1st Edition). Athens: ION Publishing Group. (in Greek) ISBN: 9789604116577.
- Polyzos, S. (2018) *Project Management*, (3rd Ed). Athens: KRITIKI Publishing S.A. ISBN: 9789605862541. (in Greek)
- Vatalis, K. (2019) *Sustainable Management - Environmental Impacts of Projects*, (1st edition). Alexandrosikebooks. (in Greek) ISBN: 9786188444898. (in Greek)
- Vayona, D. (2021) *Project Management*. Thessaloniki: Disigma Publications. ISBN: 9786182020470.