



COURSE OUTLINE

(1) GENERAL

SCHOOL	School of Technology		
ACADEMIC UNIT	Department of Environmental Sciences		
LEVEL OF STUDIES	Undergraduate		
COURSE CODE	AE705	SEMESTER	7th
COURSE TITLE	QUALITY ASSURANCE in ENVIRONMENTAL MANAGEMENT SYSTEMS		
INDEPENDENT TEACHING ACTIVITIES		WEEKLY TEACHING HOURS	CREDITS
Teaching Hours		3	4
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_136/		

(2) LEARNING OUTCOMES

Learning outcomes
<p>An Environmental Management System (EMS) is a structured management framework designed to help a business / organization reduce its impact on the environment by using various business practices. Since EMSs vary considerably in quality and scope, various voluntary standards have been developed, which can be recognized at National, European and International level. Environmental standards consist of management standards and product standards. Management standards provide a system for managing environmental impacts while product standards enable consumers to identify environmentally friendly products. The most widespread Environmental Management Systems are ISO 14001 - International Standard, and EMAS (Eco-Management and Audit Scheme - Ecological Management and Ecological Control) - European Standard, which includes candidate and potential candidate countries of the wider European economic zone.</p> <p>Upon successful completion of the course students will have acquired the necessary knowledge, skills and competence, and will be able to:</p> <ul style="list-style-type: none">• Understand the importance of environmental management of organizations.• Comprehend the ISO 14001 environmental management system.• Comprehend the EMAS environmental management system.• Comprehend corporate sustainability reports.• Identify environmental aspects and issues.• Draw up environmental management programmes.• Monitor the operation of an environmental management system.• Implement an environmental management system.
General Competences
<ul style="list-style-type: none">• Adapting to new situations• Working in an interdisciplinary environment• Decision-making• Working independently• Production of new research ideas• Respect for difference and multiculturalism• Project planning and management• Respect for the natural environment• Criticism and self-criticism• Production of free, creative and inductive thinking

(3) SYLLABUS

<ul style="list-style-type: none"> • Introduction – Definitions. • Sustainability & Environment. • Environmental Management Systems. • The ISO 14001 standard. • Regulation on the Eco-Management and Eco-Control System (EMAS). • Stages of Development of an Environmental Management System. • Environmental issues and aspects. Risk Analysis. • Development methodology for Environmental Management Programmes. • Tools for implementing an Environmental Management System. • Monitoring of Environmental Parameters in the context of an EMS. • Case Studies: Implementation of EMS. • Case Studies: Implementation of EMS • Case Studies: Implementation of EMS

(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 • Visiting and using material from websites • Communication with students via e-mail • Use of asynchronous distance learning (e-class) 	
TEACHING METHODS	Activity	Semester workload
	Lectures	39
	Study and analysis of bibliography	30
	Essay writing & presentation preparing	31
	Course total (25 hours workload per credit)	100
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) that contributes 30% to the final grade. The assignment may be presented by the students in class. <p>Final Grade = 70% Exam Grade + 30% Assignment Grade</p>	

(5) ATTACHED BIBLIOGRAPHY

<ul style="list-style-type: none"> • Arvanitogiannis, I.S., Efstratiadis, M.M., Boundouropoulos, I.D. (2000) <i>ISO 9000 and ISO 14000</i>. Thessaloniki: University Studio Press (in Greek) • Regulation (EC) no. 1221/2009 of the European Parliament and of the Council, of November 25, 2009, on the voluntary participation of organizations in a Community eco-management and eco-audit scheme (EMAS). • Sheldon, C., Yoxon, M. (2012) <i>Environmental Management Systems: A Step-by-Step Guide to Implementation and Maintenance</i>, (3rd ed). London: Routledge.
