

COURSE OUTLINE

(1) GENERAL

SCHOOL	ENGINEERING		
ACADEMIC UNIT	DEPARTMENT OF MINERAL RESOURCES ENGINEERING		
LEVEL OF STUDIES	UNDERGRADUATE		
COURSE CODE	MRE933	SEMESTER	9/3 rd orientation
COURSE TITLE	Environmental Management and Law		
INDEPENDENT TEACHING ACTIVITIES <i>if credits are awarded for separate components of the course, e.g. lectures, laboratory exercises, etc. If the credits are awarded for the whole of the course, give the weekly teaching hours and the total credits</i>		WEEKLY TEACHING HOURS	CREDITS
Lectures		3	4
Labs		1	1
Total		4	5
<i>Add rows if necessary. The organisation of teaching and the teaching methods used are described in detail at (d).</i>			
COURSE TYPE <i>general background, special background, specialised general knowledge, skills development</i>	special background		
PREREQUISITE COURSES:	There are no prerequisite courses		
LANGUAGE OF INSTRUCTION and EXAMINATIONS:	Greek		
IS THE COURSE OFFERED TO ERASMUS STUDENTS	No		
COURSE WEBSITE (URL)			

(2) LEARNING OUTCOMES

<p>Learning outcomes <i>The course learning outcomes, specific knowledge, skills and competences of an appropriate level, which the students will acquire with the successful completion of the course are described.</i></p> <p><i>Consult Appendix A</i></p> <ul style="list-style-type: none"> • <i>Description of the level of learning outcomes for each qualifications cycle, according to the Qualifications Framework of the European Higher Education Area</i> • <i>Descriptors for Levels 6, 7 & 8 of the European Qualifications Framework for Lifelong Learning and Appendix B</i> • <i>Guidelines for writing Learning Outcomes</i>
<p>Students should be able to:</p> <ul style="list-style-type: none"> • Understand the role of EU and Greek environmental legislative framework • Comprehend the meaning of global environmental warming framework and its connection with Climate Change phenomenon. • Are aware of corporate social responsibility • Know the value of a telematics environmental management system (Supervisory Control and Data Acquisition, SCADA) which allows the control of an environmental project through computer or mobile applications. • Understand the main characteristics of environmental management, through a sustainable approach in order to create a framework for addressing the global environmental issues.
<p>General Competences <i>Taking into consideration the general competences that the degree-holder must acquire (as these appear in the Diploma Supplement and appear below), at which of the following does the course aim?</i></p>

<i>Search for, analysis and synthesis of data and information, with the use of the necessary technology</i> <i>Adapting to new situations</i> <i>Decision-making</i> <i>Working independently</i> <i>Team work</i> <i>Working in an international environment</i> <i>Working in an interdisciplinary environment</i> <i>Production of new research ideas</i>	<i>Project planning and management</i> <i>Respect for difference and multiculturalism</i> <i>Respect for the natural environment</i> <i>Showing social, professional and ethical responsibility and sensitivity to gender issues</i> <i>Criticism and self-criticism</i> <i>Production of free, creative and inductive thinking</i> <i>Others...</i>
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- Understand that a balanced society-environment relationship, presupposes the knowledge of the environmental structure, in relation to man-made activities.
- The E.U legislative evolution with new Directives that leading European society to innovative techniques and ways for reducing its environmental footprint and showing the path for a just energy transition step.

(3) SYLLABUS

Introduction. Environmental EU and Greek Legislative framework, Environment and Mining, Analysis cost-effectiveness, Life Cycle Analysis, Environmental Management Systems, Eco-labeling, Sustainability: environmental, Economic and Social, Environmentally friendly product design, Elements of Green Economics, Green Public procurements, Multicriteria Decision Analysis (MCDA), Risk Assessment, Environmental Statistics, Climate Change and Mineral Resources management Strategies, Best Available Techniques (BAT) in Environmental Management systems, Corporate Social Responsibility, Environmental telematics.

TEACHING and LEARNING METHODS - EVALUATION

DELIVERY <i>Face-to-face, Distance learning, etc.</i>	Face-to-face, Distance learning, Lectures, Lab demonstration, Tutorials	
USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY <i>Use of ICT in teaching, laboratory education, communication with students</i>	E-Class, electronic communication, video demonstrations, intermediate exams via e-Class tools	
TEACHING METHODS <i>The manner and methods of teaching are described in detail.</i> <i>Lectures, seminars, laboratory practice, fieldwork, study and analysis of bibliography, tutorials, placements, clinical practice, art workshop, interactive teaching, educational visits, project, essay writing, artistic creativity, etc.</i> <i>The student's study hours for each learning activity are given as well as the hours of non-directed study according to the principles of the ECTS</i>	Activity	Semester workload
	Lectures	36
	Lab	12
	Tutorials	32
	Self-study	20
	Course total	100

STUDENT PERFORMANCE EVALUATION	
<p><i>Description of the evaluation procedure</i></p> <p><i>Language of evaluation, methods of evaluation, summative or conclusive, multiple choice questionnaires, short-answer questions, open-ended questions, problem solving, written work, essay/report, oral examination, public presentation, laboratory work, clinical examination of patient, art interpretation, other</i></p> <p><i>Specifically-defined evaluation criteria are given, and if and where they are accessible to students.</i></p>	<p>Final exam (60%, minimum required grade = 4/10), Multiple choice intermediate exam (20%), Homework (20%)</p>

(4) SUGGESTED BIBLIOGRAPHY

- Suggested bibliography:

1. Munier, N. 2005. Introduction to Sustainability – Road to a better future. Springer. Κωδικός στον Εύδοξο : 170113.
2. Meadows Donella, Randers Jorgen, Meadows Dennis. “Limits to Growth: The 30-Year Update, Chelsea Green Publishing, 2004.
3. Ellen M. van Bueren (Editor), Hein van Bohemen (Editor), Laure Itard (Editor), Henk Visscher (Editor), Sustainable Urban Environments: Ecosystem Approach, Springer; 2012 edition.
4. GEA Writing team, Global Energy Assessment: Toward a Sustainable Future, Cambridge University Press, 2012
5. Χημεία Περιβάλλοντος. Κ. Φυτιάνος, Κ. Σαμαρά-Κωνσταντίνου. University Studio Press (2009)
6. Περιβαλλοντική Επιστήμη ΠΡΟΣ ΕΝΑ ΒΙΩΣΙΜΟ ΜΕΛΛΟΝ. Ενδέκατη Έκδοση Richard T. Wright/Dorothy E. Boorse. Επιμέλεια Ελληνικής Έκδοσης. Θεοδώρα Πετανίδου - Σοφία Ριζοπούλου, Επιστημονικές εκδόσεις ΠΑΡΙΣΙΑΝΟΥ Α.Ε
7. Ρόβλιας, Ν. 2022. Ο Ν. 4412/2016 για τις δημόσιες συμβάσεις μετά τον Ν. 4782/2021. Ευδοξος (102074514):
8. Sankar Ajith, Μουζακίτης Ι. 2021. Διαχείριση Περιβάλλοντος Βιβλίο [86056487]:Εκδ. Τζιολα

- Related academic journals:

Journal of Environmental Management – Elsevier
Environmental management – Springer
Journal of Environmental Planning and Management
Environmental Engineering and Management Journal
Management of environmental quality
Corporate Social Responsibility and Environmental management