

COURSE OUTLINE

(1) General information

FACULTY/SCHOOL	TECHNOLOGY		
DEPARTMENT	ENVIRONMENTAL SCIENCES		
LEVEL OF STUDY	<i>Undergraduate</i>		
COURSE UNIT CODE	NEW COURSE	SEMESTER	1 ^o
COURSE TITLE	ENVIRONMENT AND SUSTAINABLE DEVELOPMENT		
INDEPENDENT TEACHING ACTIVITIES in case credits are awarded for separate components/parts of the course, e.g. in lectures, laboratory exercises, etc. If credits are awarded for the entire course, give the weekly teaching hours and the total credits		WEEKLY TEACHING HOURS	CREDITS
THEORETICAL BACKGROUND		4	5
LABORATORY PRACTICE		0	0
TOTAL		4	5
COURSE TYPE Background knowledge, Scientific expertise, General Knowledge, Skills Development	Background knowledge		
PREREQUISITE COURSES:	None		
LANGUAGE OF INSTRUCTION & EXAMINATION/ASSESSMENT:	GREEK		
THE COURSE IS OFFERED TO ERASMUS STUDENTS	YES		
COURSE WEBSITE (URL)			

(2) LEARNING OUTCOMES

<p>Learning Outcomes</p> <p><i>The course learning outcomes, specific knowledge, skills and competences of an appropriate (certain) level, which students will acquire upon successful completion of the course, are described in detail. It is necessary to consult:</i></p> <p>APPENDIX A</p> <ul style="list-style-type: none"> • Description of the level of learning outcomes for each level of study, in accordance with the European Higher Education Qualifications' Framework. • Descriptive indicators for Levels 6, 7 & 8 of the European Qualifications Framework for Lifelong Learning and <p>APPENDIX B</p> <ul style="list-style-type: none"> • Guidelines for writing Learning Outcomes
<p>Natural resources are fundamental to economy and prosperity. They provide raw materials, energy, food, water and land, as well as environmental and social services. However, current standards of resource use, production, consumption and waste are not sustainable. The earth has only finite resources, and their over-use involves increasing pressure on our natural environment, global warming, pollution and degradation of ecosystems and biodiversity. Reducing the environmental impact associated with the use of resources in the economy presupposes the efficient and reasonable use of the resources we have.</p>

The aim of the course is to evaluate, in quantitative terms, the extent to which recycling, waste prevention and production design improvement, combined with existing policies, can contribute to overall material use and productivity. The general environmental, economic and social consequences of possible actions to improve material productivity are also examined.

General Competences

Taking into consideration the general competences that students/graduates must acquire (as those are described in the Diploma Supplement and are mentioned below), at which of the following does the course attendance aim?

<i>Search for, analysis and synthesis of data and information by the use of appropriate technologies, Adapting to new situations</i>	<i>Project planning and management</i>
<i>Decision-making</i>	<i>Respect for diversity and multiculturalism</i>
<i>Individual/Independent work</i>	<i>Environmental awareness</i>
<i>Group/Team work</i>	<i>Social, professional and ethical responsibility and sensitivity to gender issues</i>
<i>Working in an international environment</i>	<i>Critical thinking</i>
<i>Working in an interdisciplinary environment</i>	<i>Development of free, creative and inductive thinking</i>
<i>Introduction of innovative research</i>	<i>.....</i>
	<i>(Other.....citizenship, spiritual freedom, social awareness, altruism etc.)</i>
	<i>.....</i>

- Search for, analysis and synthesis of data and information by the use of appropriate technologies,
- Individual/Independent work
- Group/Team work
- Environmental awareness
- Development of free, creative and inductive thinking

(3) COURSE CONTENT

1. Introduction - General concepts
2. International environmental meetings - Main agenda
3. What is sustainable development - Pillars - Basic concepts
4. Development - consumption and natural wealth
5. Measuring sustainable development
6. Influence of scale on sustainable development
7. The international factor
8. Sustainable growth indicators
9. Use of materials and environmental impacts
10. Sustainability and development
11. Agenda 2030 and sustainable development
12. Corporate social responsibility as a factor of sustainable development.
13. Circular economy and sustainable development

(4) TEACHING METHODS-ASSESSMENT

MODES OF DELIVERY Face-to-face, in-class lecturing, distance teaching and distance learning etc.	<ul style="list-style-type: none"> ▪ In-class lecturing ▪ Team discussion ▪ Distance teaching and distance learning
USE OF INFORMATION AND COMMUNICATION TECHNOLOGY Use of ICT in teaching, Laboratory	<ul style="list-style-type: none"> ▪ Use of ICT in teaching (power-point, video). ▪ Communication with students (email, skype, etc..) ▪ E-class

Education, Communication with students		
<p style="text-align: center;">COURSE DESIGN</p> <p>Description of teaching techniques, practices and methods: Lectures, seminars, laboratory practice, fieldwork, study and analysis of bibliography, tutorials, Internship, Art Workshop, Interactive teaching, Educational visits, projects, Essay writing, Artistic creativity, etc.</p> <p>The study hours for each learning activity as well as the hours of self-directed study are given following the principles of the ECTS.</p>	Activity/Method	Semester workload
	Lectures	52
	Workshop	35
	Laboratory work	
	Theory study	38
	Weekly individual evaluation reports for laboratory exercises	
	Course total (25 hours of workload per credit unit)	125
<p style="text-align: center;">STUDENT PERFORMANCE EVALUATION/ASSESSMENT METHODS</p> <p>Detailed description of the evaluation procedures:</p> <p>Language of evaluation, assessment methods, formative or summative (conclusive), multiple choice tests, short-answer questions, open-ended questions, problem solving, written work, essay/report, oral exam, presentation, laboratory work, other.....etc.</p> <p>Specifically, defined evaluation criteria are stated, as well as if and where they are accessible by the students.</p>	<p>Students are evaluated in Greek or English. Students final Assessment is based on:</p> <ul style="list-style-type: none"> ▪ Written examination based on short and open-ended questions: 50% of final evaluation (A) ▪ Individual and team essay- report examination and presentation: 50% of final evaluation (B) ▪ Final Assessment = 50% (A) + 50% (B) 	

(5) SUGGESTED BIBLIOGRAPHY:

<p><u>Suggested bibliography</u></p> <p>- Handbook of sustainable development/edited by Giles Atkinson, Simon Dietz, Eric Neumayer. ISBN 978 1 84376 577 6</p> <p>- European Commission DG ENV, Analysis of the Key Contributions to Resource Efficiency, Final report March 2011</p> <p>- Χατζημπίρος Κ. (2009). Πράσινη Ανάπτυξη. Κατευθύνσεις Προοδευτικής Διακυβέρνησης, Δ. Ξενάκης (επιμ.). Εκδόσεις Παπαζήση, Αθήνα.</p> <p>- EEA – European Environment Agency (2015). SOER 2015 — The European environment — state and outlook 2015. European Environment Agency, Copenhagen. ISBN 978-92-9213-515-7.</p> <p>- Η Εταιρική Κοινωνική Ευθύνη στην ΕΕ Ευρωπαϊκή Επιτροπή [ONLINE] Available at: http://ec.europa.eu/social/main.jsp?catId=331&langId=el [Accessed 12 October 2015].</p>
