

ENVIRONMENTAL IMPACT ASSESSMENT

COURSE OUTLINE

1. GENERAL

| | | | |
|---|--|-----------------|-----------------|
| SCHOOL | Environment and Agricultural Engineering | | |
| ACADEMIC UNIT | Department of Natural Resources Development & Agricultural Engineering | | |
| LEVEL OF STUDIES | Bachelor | | |
| COURSE CODE | 2665 | SEMESTER | 7 th |
| COURSE TITLE | ENVIRONMENTAL IMPACT ASSESSMENT | | |
| 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 and laboratory exercises | 5 | 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> | Specialised general knowledge | | |
| PREREQUISITE COURSES: | | | |
| LANGUAGE OF INSTRUCTION and EXAMINATIONS: | Greek | | |
| IS THE COURSE OFFERED TO ERASMUS STUDENTS | Yes (English) | | |
| COURSE WEBSITE (URL) | | | |

2. LEARNING OUTCOMES

| |
|--|
| <p>Learning outcomes</p> <p><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"> • Description of the level of learning outcomes for each qualifications cycle, according to the Qualifications Framework of the European Higher Education Area • Descriptors for Levels 6, 7 & 8 of the European Qualifications Framework for Lifelong Learning and Appendix B • Guidelines for writing Learning Outcomes |
| <p>The course has the following objectives:</p> <ul style="list-style-type: none"> • To present an integrated framework for dealing with environmental impacts. • To combine technical issues for development through natural resources development projects with environmental issues such as resource sustainability, their protection, the legislative framework, the social environment, technological and technological interventions to deal with impacts, etc. • To emphasize the interdependence of technology and environment and the methodology of their approach, especially in matters of natural resources development. <p>The course approaches the great transformation that has taken place in recent decades, regarding the diversity of ecological load, which has begun to escape in its dimensions and impacts. In this context, it highlights how an ever-increasing technological infrastructure combined with a parallel and rapidly changing socio-economic context, has contributed to new conceptual, methodological and political approaches. Therefore, the centrality of upcoming and changing patterns in theory and n practice for the sustainable exploitation of natural resources in the immediate and therefore in the long term. Finally, it highlights what</p> |

integrated action and implementation imply, in terms of planning and addressing technically feasible, cost-effective, socially just, and ecologically balanced future environments, creating a more quality environment (in agricultural and urban areas), minimizing the accumulation of environmental impacts, and striving for sustainable resource use. The course trains students to understand that addressing the impacts of natural resource utilization follows this approach in order to achieve a decision-making process and implementable measures that includes multiple objectives, multiple decision-makers, multiple users, and multiple stakeholders and interest groups.

Upon successful completion of the course, the student will be able to:

- Understand the basic and critical characteristics of natural resource development, their connection with general economic and operational objectives and the principles of dealing with impacts, especially in conditions of environmental degradation, failed exploitation options, etc.
- Have knowledge of the tools and techniques of Environmental Impact Studies and how they are used to ensure their successful treatment at a specified time and within budget
- Collaborate with fellow students to create and present an EIA plan in a project case study that includes Objectives, Environmental Analysis – Impacts, Methodology of treatment, and Synthesis of results).

General Competences

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?

Search for, analysis and synthesis of data and information, with the use of the necessary technology

Adapting to new situations

Decision-making

Working independently

Team work

Working in an international environment

Working in an interdisciplinary environment

Production of new research ideas

Project planning and management

Respect for difference and multiculturalism

Respect for the natural environment

Showing social, professional and ethical responsibility and sensitivity to gender issues

Criticism and self-criticism

Production of free, creative and inductive thinking

.....

Others...

.....

- Search, analyze and synthesize data and information, using the necessary technologies
- Adapting to new situations Decision making
- Autonomous work
- Teamwork Working in an interdisciplinary environment R
- respect for diversity and multiculturalism
- Respect for the natural environment Promotion of free, creative and inductive thinking

3. SYLLABUS

- i. Environment, Anthropogenic Systems and Natural Resources Systems.
- ii. Planning of Anthropogenic Systems.
- iii. Planning for the development and use of natural resources.
- iv. Methodology for dealing with environmental impacts.
- v. Natural resources and environmental sustainability.
- vi. Social parameters.
- vii. Public participation in decision-making.
- viii. EIA Institutional Framework
- ix. Design and Management Applications

4. TEACHING and LEARNING METHODS - EVALUATION

| <p style="text-align: center;">DELIVERY <i>Face-to-face, Distance learning, etc.</i></p> | <p>Face-to-face & distance learning Lecture-Based Learning</p> <ul style="list-style-type: none"> ● e-Learning ● Internships and Work-Study Programs ● Field Trips ● Guest Lectures ● Group Projects | | | | | | | | | | | | | | | | | | | | | | | |
|--|--|--|-----------------|--------------------------|-----------------|----|---|----|---|----|---|----|--------------------------|----|--|--|--|--|--|--|--|--|---------------------|------------|
| <p style="text-align: center;">USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY <i>Use of ICT in teaching, laboratory education, communication with students</i></p> | <ul style="list-style-type: none"> ● Basic software (windows, word, excel, power point, web, etc) ● AUA webmail ● AI material | | | | | | | | | | | | | | | | | | | | | | | |
| <p style="text-align: center;">TEACHING METHODS</p> <p><i>The manner and methods of teaching are described in detail.</i></p> <p><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></p> <p><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></p> | <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: center;"><i>Activity</i></th> <th style="text-align: center;"><i>Semester workload</i></th> </tr> </thead> <tbody> <tr> <td><i>Lectures</i></td> <td style="text-align: center;">39</td> </tr> <tr> <td><i>Laboratory individual exercises, essay writing</i></td> <td style="text-align: center;">26</td> </tr> <tr> <td><i>Group work in a case study. Elaboration of project EIA</i></td> <td style="text-align: center;">20</td> </tr> <tr> <td><i>Field trip / Small individual practice assignments</i></td> <td style="text-align: center;">10</td> </tr> <tr> <td><i>Independent Study</i></td> <td style="text-align: center;">30</td> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <td>Course total</td> <td style="text-align: center;">125</td> </tr> </tbody> </table> | | <i>Activity</i> | <i>Semester workload</i> | <i>Lectures</i> | 39 | <i>Laboratory individual exercises, essay writing</i> | 26 | <i>Group work in a case study. Elaboration of project EIA</i> | 20 | <i>Field trip / Small individual practice assignments</i> | 10 | <i>Independent Study</i> | 30 | | | | | | | | | Course total | 125 |
| <i>Activity</i> | <i>Semester workload</i> | | | | | | | | | | | | | | | | | | | | | | | |
| <i>Lectures</i> | 39 | | | | | | | | | | | | | | | | | | | | | | | |
| <i>Laboratory individual exercises, essay writing</i> | 26 | | | | | | | | | | | | | | | | | | | | | | | |
| <i>Group work in a case study. Elaboration of project EIA</i> | 20 | | | | | | | | | | | | | | | | | | | | | | | |
| <i>Field trip / Small individual practice assignments</i> | 10 | | | | | | | | | | | | | | | | | | | | | | | |
| <i>Independent Study</i> | 30 | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | |
| Course total | 125 | | | | | | | | | | | | | | | | | | | | | | | |
| <p style="text-align: center;">STUDENT PERFORMANCE EVALUATION</p> <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>50% Theory, 50% Laboratory distributed as:</p> <ol style="list-style-type: none"> 1. Written final Exam (30%) comprising: Judgement questions Comparative evaluation of theory elements. 2. Individual Project Presentation and Laboratory Exercises (70%) | | | | | | | | | | | | | | | | | | | | | | | |

5. ATTACHED BIBLIOGRAPHY

- *Suggested bibliography:*

- **Decleris, M., 2000.** *The Law of Sustainable Development.* European Commission, Environment Directorate – General, Brussels.
- **Europe's Environment, 2012.** European Environment Agency, Copenhagen
- **Theis, Tom and Jonathan Tomkin (2012)** *Sustainability: A Comprehensive Foundation*

- *Related academic journals:*

- *Journal of Environmental Quality*
- *Journal of Environmental Planning and Management*
- *Environmental Research and Risk Assessment.*