COURSE OUTLINE

(1) General information

FACULTY/SCHOOL	TECHNOLOGY			
DEPARTMENT	ENVIRONMENTAL SCIENCES			
LEVEL OF STUDY	*Undergraduate*			
COURSE UNIT CODE	NEW **COURSE**	**SEMESTER**	8	
COURSE TITLE	DISSERTATION			
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 TEACHNG HOURS**	**CREDITS**
THEORETICAL BACKGROUND			12	15
LABORATORY PRACTICE				
TOTAL			12	15
COURSE TYPE Background knowledge, Scientific expertise, General Knowledge, Skills Development	Skills Development			
PREREQUISITE COURSES:	After completion of 80% of the program's ECTS			
LANGUAGE OF INSTRUCTION &EXAMINATION/ASSESSMENT:	GREEK			
THE COURSE IS OFFERED TO ERASMUS STUDENTS	YES			
COURSE WEBSITE (URL)				

(2) LEARNING OUTCOMES

Learning Outcomes

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:

APPENDIX A

- *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*

APPENDIX B

- *Guidelines for writing Learning Outcomes*

1. General Aims – General Learning Outcomes

The aim of the module is

1. That the student should be able to write a scientific monograph in a research topic that will have increased innovation and autonomy aspects and requires the systematic literature review in a knowledge area that has been covered in one or more modules of the curriculum

and demands the pursue of a deeper understanding with the use of a suitable research methodology.

2. The ability to select of a suitable topic after the evaluation of the topics proposed by the teaching staff, the effort to contact and make the necessary discussions with the supervisor and the under guidance ability and effort of researching of the international literature and the documentation of the contribution.
3. The determination of the aims and timetable for the writing of the dissertation.
4. The acquisition of knowledge and learning of methodologies required for the deepening into the subject matter.
5. The submission of the actual written work of the dissertation that will meet the requirements and aims within the set timetable.

Πως εξειδικεύονται στις παρακάτω κατηγορίες

1.1. Knowledge

1. Recognition and taxonomy of the existing knowledge in the research topic under investigation thru the systematic review of the up-to-date related international literature.
2. The selection of the research question after the systematic evaluation of the ;iterature.
3. The selection and application of a suitable scientific methodology for the analysis of the research question.

1.2. Skills

1. Review of relevant to the research topic research με
2. Data Organization and taxonomy
3. Processing of results using suitable research methods and tools.
4. Review of the wider related subject matter during all of the processing phases of the dissertation and writing it in organized chapters

1.3. Abilities

1. Selection and suitable writing of a suitable research proposal.
2. Selection and application of suitable scientific methods and tools for the analysis.
3. Search, analysis and synthesis of data and information using the appropriate technologies.
4. Evaluation of the usefulness of the results to the environment.
5. Presentation of the results to a scientific audience.

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?

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

Introduction of innovative research

The general skills and abilities expected to be obtained by the student in the module are:

1. Recognition of the human and natural functions and its problems and malfunctions
2. Scientific analysis of the specific knowledge of the research topic under consideration and taxonomy within the wider research area.
3. Dealing with a complete research topic autonomously.
4. Ability to critique and self-critique.
5. Writing autonomously a research paper in a future interdisciplinary environment.
6. Promotion of free creative and inductive thinking

The above are secured by the supervising professor with periodical submissions, presentations and evaluations and thru learning from participation in presentations of finished dissertations and other presentations of scientific and research papers within the University.

(3) COURSE CONTENT

Module Outline

The writing of the dissertation includes:

1. The critical review of exiting literature.
2. The selection, writing and explanation of a suitable research topic.
3. The application of suitable methodologies and tools in the scientific research area, the analysis and taxonomy of the related literature, and the investigation of suitable research paradigms.
4. The completion of the analysis and the interpretation of the research results in relation to the selected research question, and the use of proper referencing
5. The presentation in a scientific audience.

The first four phases are developed under the supervision of a mentor professor while the fifth phase is cultivated with the attendance of similar presentations of dissertations and research papers by others.

(4) TEACHING METHODS-ASSESSMENT

MODES OF DELIVERY **Face-to-face, in-class lecturing, distance teaching and distance learning etc.**	• Periodic meetings with the supervisor in person according to the deliverables set in the sproposed chedule • Attendance of lectures and presentations of dissertations and other research papers.
USE OF INFORMATION AND COMMUNICATION TECHNOLOGY **Use of ICT in teaching, Laboratory Education, Communication with**	• Use of software for presentations, internet search tools, and asynchronous tele-education platform. Επικοινωνία με τους φοιτητές μέσω e-mail. • Use of the E-class learning platform.

<table>
<tr><td>students</td><td></td></tr>
<tr><td>COURSE DESIGN
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.

The study hours for each learning activity as well as the hours of self-directed study are given following the principles of the ECTS.</td><td>
<table>
<tr><th>Activity/Method</th><th>Semester workload</th></tr>
<tr><td>Lectures</td><td>50</td></tr>
<tr><td>Workshop</td><td>75</td></tr>
<tr><td>Laboratory work</td><td>150</td></tr>
<tr><td>Theory study</td><td>100</td></tr>
<tr><td>Weekly individual evaluation reports for laboratory exercises</td><td>375</td></tr>
<tr><td>Course total
(25 hours of workload per credit unit)</td><td>50</td></tr>
</table>
</td></tr>
<tr><td>STUDENT PERFORMANCE EVALUATION/ASSESSMENT METHODS
Detailed description of the evaluation procedures:

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.

Specifically, defined evaluation criteria are stated, as well as if and where they are accessible by the students.</td><td><u>Evaluation</u>
1. The dissertation is submitted in printed and electronic form on pre-selected standard document in Grrek of English language and is submitted to plagiarism check using the selected plagiarism software selected by the University.
2. The dissertation is presented publicly in Gree or English language and is evaluated by a 3-member committee of teaching staff, one of them being the supervisor. The supervisor gives the approval for submission to evaluation provided that the pass grade can be achieved..
3. The exam dates of dissertations are decided by the Department’s assembly.
The evaluation criteria are the following:
1. Originality 20%
2. Quality and quantity of Literature Review 25%
3. Good application of suitable Methodologies 30%
4. Quality of Results 10%
5. Presentation 10%
The final grade is the average of the final marks of the three evaluators rounded to the closest integer with minimum grade 5 (pass)</td></tr>
</table>

(5) SUGGESTED BIBLIOGRAPHY:

-***<u>Suggested bibliography</u>***

• International journals and books related to the research area.

-***<u>Complementary bibliography</u>***

Handbooks for writing dissertations and scientific papers.