

COURSE OUTLINE

(1) GENERAL

SCHOOL	ENVIRONMENT, GEOGRAPHY AND APPLIED ECONOMICS		
ACADEMIC UNIT	GEOGRAPHY		
LEVEL OF STUDIES	Undergraduate		
COURSE CODE		SEMESTER	3 rd
COURSE TITLE	APPLIED GEOINFORMATION IN ENVIRONMENTAL MANAGEMENT		
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		3	5
Add rows if necessary. The organisation of teaching and the teaching methods used are described in detail at (d).			
COURSE TYPE <i>general background, special background, specialised general knowledge, skills development</i>	Optional		
PREREQUISITE COURSES:	-		
LANGUAGE OF INSTRUCTION and EXAMINATIONS:	GREEK		
IS THE COURSE OFFERED TO ERASMUS STUDENTS	YES, IN ENGLISH (IF REQUIRED)		

(2) LEARNING OUTCOMES

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> Consult Appendix A • 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	
The course aims to offer a deeper knowledge and technical skills to the students on the use of a wide spectrum of geoinformation technologies and of their practical applications in managing the physical and manmade environment.	
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>	
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...

Some of the key topics covered in the course include (list is indicative):

- Developing tools for automating data collection in the field
- Presentation of geospatial data using WebGIS
- Interpolation methods (going spatial from point)
- Introduction to drones
- Introduction to simulation process models
- Thermal remote sensing: from theory to practice
- EO data usage in creating thematic maps and change detection mapping

(3) SYLLABUS

Some of the key topics covered in the course include (list is indicative):

- Developing tools for automating data collection in the field
- Presentation of geospatial data using WebGIS
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(4) TEACHING and LEARNING METHODS - EVALUATION

DELIVERY <i>Face-to-face, Distance learning, etc.</i>	- In class lectures - Practical training in ICT laboratory	
USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY <i>Use of ICT in teaching, laboratory education, communication with students</i>	ICT use, Internet use and e-class Use of specialized software (open source & commercial) in geospatial data handling	
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	13
	Laboratory practice	26
	Assignment	30
	Individual study	58
	Course Total	127
STUDENT PERFORMANCE EVALUATION <i>Description of the evaluation procedure</i> <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> <i>Specifically-defined evaluation criteria are given, and if and where they are accessible to students.</i>	Assessment Language: Greek Assessment criteria are announced at the start of the semester.	

(5) ATTACHED BIBLIOGRAPHY

ΤΗΛΕΠΙΣΚΟΠΗΣΗ ΠΕΡΙΒΑΛΛΟΝΤΟΣ - Μια προοπτική για τα φυσικά διαθέσιμα. John Jensen, ΕΚΔΟΣΕΙΣ ΕΜΠ, 2015
Οδηγός του ArcGIS Pro, 3η Έκδοση. Shellito Bradley, Τσάτσαρης Ανδρέας (Επιστ. Επιμέλεια). ΕΚΔΟΣΕΙΣ ΤΖΙΟΛΑ, 2021