COURSE OYTLINE

(1) GENERAL

SCHOOL	ENVIRONMENT, GEOGRAPHY AND APPLIED ECONOMICS		
DEPARTMENT	GEOGRAPHY		
LEVEL OF COURSE	UNDERGRADUATE		
COURSE CODE	ΓΦ2600	**SEMESTER**	6 / 8
COURSE TITLE	**APPLIED GIS**		

INDEPENDENT TEACHING ACTIVITIES	**WEEKLY TEACHING HOURS**	**CREDITS**
Lectures and Laboratory Classes	3	5

COURSE TYPE	Optional
PREREQUISITE COURSES:	-
LANGUAGE OF INSTRUCTION and EXAMINATIONS:	GREEK
IS THE COURSE OFFERED TO ERASMUS STUDENTS	YES (in English if required)
COURSE WEBSITE (URL)	https://eclass.hua.gr/courses/GEO121/

(2) LEARNING OUTCOMES

Learning outcomes

The module aims to introduce to the students the advanced spatial analysis with the use of GIS as well as GIS-based applications. Students are encouraged on project work in the field of applied GIS. The main target is the design, organization and implementation of real GIS projects using and enriching theoretical knowledge and technical skills of previous courses. At the end of the module students should be able to implement various GIS and spatial analysis applications, dealing with complex geographical phenomena, and have an overview of modern methods used in the industry and in research projects.

General Competences

- Search for, analysis and synthesis of data and information, with the use of the necessary technologies
- Working independently
- Team work
- Technical skills development
- Production of free, creative and inductive thinking.

(3) SYLLABUS

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

- GIS and advanced spatial analysis
- GIS and geographical problem solving

- GIS applications
- Multiriteria analysis and cartographic overlay
- Dynamic/Spatiotemporal phenomena analysis and modeling
- Analytical hierarchy
- Spatial interpolation using GIS techniques

(4) TEACHING and LEARNING METHODS - EVALUATION

DELIVERY	In class lectures, practical training in ICT laboratory.
USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY	ICT use in teaching and laboratory education, internet use and e-class.
TEACHING METHODS	***Activity*** / ***Semester workload***
	Lectures: 13
	Laboratory practice: 26
	Projects: 62
	Studying: 26
	Course total: 127
STUDENT PERFORMANCE EVALUATION	Evaluation language: Greek Evaluation methods: 1. Projects (70%) 2. Final written exams (30%) Evaluation criteria are announced at the start of the semester and they are accessible to students in the e-class of the course.

(5) ATTACHED BIBLIOGRAPHY

- Chalkias C., 2015. Geographical Analysis with the use of Geoinformatics [ebook]. Kallipos, Open Academic Editions. (In Greek)

  Available Online at: https://repository.kallipos.gr/handle/11419/4546
- Pappas V., 2011. GIS and planning. Patra: University of Patra publications.
- Koutsopoulos K., 2002. GIS and spatial analysis. Athens: Papasotiriou publications.