COURSE DISCRIPTION

1. GENERAL

SCHOOL	ENVIRONMENT, GEOGRAPHY AND APPLIED ECONOMICS		
DEPARTMENT	GEOGRAPHY		
LEVEL OF COURSE	Postgraduate		
COURSE CODE		**SEMESTER**	2nd
COURSE TITLE	DISASTER MANAGEMENT WITH THE USE OF GEOINFORMATICS		

STRUCTURE OF TEACHING ACTIVITIES	**TEACHING HOURS PER WEEK**	**NUMBER OF CREDITS ALLOCATED (ECTS)**
Lectures and Laboratory Classes	2	7,5

TYPE OF COURSE	Optional
PREREQUISITES	-
LANGUAGE OF INSTRUCTION	GREEK
COURSE OFFERED TO ERASMUS STUDENTS	YES (in English if required)
(URL)	https://eclass.hua.gr/courses/GEO174/

2. EXPECTED LEARNING OUTCOMES

Learning outcomes *Describe the objectives of the course as well as the expected learning outcomes*
The main aim of the course is to present the use of Geoinformatics (GIS, Remote Sensing, GPS, Automated Cartography) in disaster management, as well as to help postgraduate student acquiring skills through laboratory exercises and presentation of current research trends in this topic.

3. COURSE CONTENTS

The course includes the following units: Space Earth monitoring systems: Existing systems - Applications in management of natural-technological risks - Mapping, monitoring, forecasting, damage assessment with the use of space for earth observation in the context of prevention and mitigation - Applications in the preparation and development of warning systems and response, relief and redesigning - Rating operational capabilities of various data per management phase - Exercises based on the experience of using satellite data of past events as well as on possible scenarios - Introduction to Global Positioning Systems (GPS) -Introduction to Geographic Information Systems. General principles of GIS - Integration, visualization, analysis of geographic data - Examples of GIS use monitoring and disaster assessment -forecasting / simulation models of natural disasters by harnessing GIS - The role of mapping in the management of natural disasters - natural disaster management exercises with the use of GIS software

4. TEACHING AND ASSESSMENT METHODS

<table>
<tr><td>TYPE OF LECTURES</td><td>In class lectures
Laboratory Lectures and Practice, projects</td></tr>
<tr><td>ICT USE</td><td>ICT use, Internet use and e-class</td></tr>
<tr><td>TEACHING STRUCTURE</td><td>
<table>
<tr><th>Activity</th><th>Hours per semester</th></tr>
<tr><td>Lectures</td><td>26</td></tr>
<tr><td>Weekly assignments</td><td>39</td></tr>
<tr><td>Projects</td><td>65</td></tr>
<tr><td>Teacher – Student contact</td><td>30</td></tr>
<tr><td>Studying – personal work</td><td>25</td></tr>
<tr><td>TOTAL</td><td>185</td></tr>
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<tr><td>ASSESSMENT METHODS</td><td>Assessment Language: Greek

Assessment Methods
The final rate of the course is computed by two parts as follows:
Weekly assignments and projects (70%)
Final written exams (30%)</td></tr>
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5. RECOMMENDED READING

Longley P.A., M.F. Goodchild, D.J. Maguire, D.W. Rhind, 2005. Geographical Information Systems and Science. John Wiley and Sons, New Jersey, 517 p. Greek Translation, Kleidarithmos pub.