# COURSE DISCRIPTION

## 1. GENERAL

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| **SCHOOL** | ENVIRONMENT, GEOGRAPHY AND APPLIED ECONOMICS | | |
| **DEPARTMENT** | GEOGRAPHY | | |
| **LEVEL OF COURSE** | Undergraduate | | |
| **COURSE CODE** | ΓΦ2600 | **SEMESTER** | 7th |
| **COURSE TITLE** | APPLIED GIS | | |

| **STRUCTURE OF TEACHING ACTIVITIES** | **TEACHING HOURS PER WEEK** | **NUMBER OF CREDITS ALLOCATED (ECTS)** |
|---|---|---|
| Lectures and Laboratory Classes | 3 | 5 |
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| **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/GEO121/ |

## 2. EXPECTED LEARNING OUTCOMES

| **Learning outcomes**<br>*Describe the objectives of the course as well as the expected learning outcomes* |
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| The main subject of this course is to introduce to the students the advanced spatial analysis with the use of GIS as well as to the 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. |

## 3. COURSE CONTENTS

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| GIS and advanced Spatial Analysis - GIS and Geographical problem solving - Dynamic / Spatiotemporal phenomena analysis & modeling - Spatial interpolation using GIS techniques - Integrated GIS - GIS customization - GIS applications - Advanced spatial data models. Advanced GIS laboratories. |

## 4. TEACHING AND ASSESSMENT METHODS

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| **TYPE OF LECTURES** | In class lectures |

<table>
<tr><td></td><td>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>13</td></tr>
<tr><td>Laboratory</td><td>26</td></tr>
<tr><td>Weekly assignments</td><td>26</td></tr>
<tr><td>Projects</td><td>37</td></tr>
<tr><td>Studying – personal work</td><td>25</td></tr>
<tr><td>TOTAL</td><td>127</td></tr>
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</td></tr>
<tr><td>ASSESSMENT METHODS</td><td>Assessment Language: Greek<br><br>Assessment Methods<br>The final rate of the course is computed by three parts as follows:<br>Projects (50%)<br>Final written exams (50%)</td></tr>
</table>

## 5. RECOMMENDED READING


Chalkias, C., 2015. Geographical Analysis with the use of Geoinformatics. [ebook] Athens:Hellenic Academic Libraries Link. Available Online at: http://hdl.handle.net/11419/4546

Pappas V., 2011: GIS and planning, pub. University of Patra, Patra.

Koutsopoulos K., 2002: GIS and Spatial analysis, Papasotiriou pub, Athens.