

## COURSE OUTLINE

### (1) General

|   |   |                     |   |
|---|---|---------------------|---|
| <b>School:</b>                                    | Social Sciences   |                     |   |
| <b>Academic Unit:</b>                             | Geography   |                     |   |
| <b>Level of studies</b>                           | Undergraduate   |                     |   |
| <b>Course Code:</b>                               | GEO 344   | <b>Semester:</b>    | F |
| <b>Course Title:</b>                              | Special Topics in Geographic Analysis   |                     |   |
| <b>Independent Teaching Activities</b>            | <b>Weekly Teaching Hours</b>  | <b>Credits</b>      |   |
| Lecture   |   | 2                   |   |
| Laboratory practice                               |   | 2                   |   |
|   |   | <b>Course total</b> | 5 |
| <b>Course Type:</b>                               | Required Elective   |                     |   |
| <b>Prerequisite Courses:</b>                      | None  |                     |   |
| <b>Language of Instruction and Examinations</b>   | Greek   |                     |   |
| <b>Is the course offered to Erasmus students:</b> | No  |                     |   |
| <b>Course Website (Url):</b>                      | <a href="https://geography.aegean.gr/ppls/index_en.php?content=0&amp;lesson=344">https://geography.aegean.gr/ppls/index_en.php?content=0&amp;lesson=344</a> |                     |   |

### (2) Learning Outcomes

#### Learning Outcomes

- Ability to comprehend basic principles and methods of location analysis as they are specifically applied to the analysis of geographical data
- Ability to select appropriate methods of analysis for the examination of geographical variables
- Ability to interpret the results of location analysis
- Ability to use specialized spatial analysis software and programming language

#### General Competences

1. Search for, analysis and synthesis of data and information, with the use of the necessary technology
2. Adapting to new situations
3. Decision-making
4. Working independently
5. Production of new research ideas
6. Respect for difference and multiculturalism
7. Respect for the natural environment
8. Showing social, professional and ethical responsibility and sensitivity to gender issues
9. Criticism and self-criticism

## 10. Production of free, creative and inductive thinking

### (3) Syllabus

Introduction to the basic principles of location analysis (both euclidian and network space).

Emphasis is given to the analysis of location value and location problems, the analysis of measurements or relative distance and cost functions. Use of specialized software for understanding basic methods of location analysis and their practical application for the analysis of spatial data from physical and human geography.

### (4) Teaching and Learning Methods - Evaluation

|   |   |                          |
|---|---|--------------------------|
| <b>Delivery:</b>  | Physical presence   |                          |
| <b>Use of Information and Communication Technology:</b> | Use of R statistical Language along with the use of QGIS software |                          |
| <b>Teaching Methods:</b>                                | <b>Activity</b>   | <b>Semester workload</b> |
| Lecture   |   | 26                       |
| Laboratory practice                                     |   | 26                       |
| Fieldwork   |   | 3                        |
| Project   |   | 42                       |
| Non-supervised study                                    |   | 26                       |
| Performance evaluation/Exams                            |   | 6                        |
|   | <b>Course total&lt;</b>   | <b>129</b>               |
| <b>Student Performance Evaluation</b>                   | Written exams along with the 2 assignments.                       |                          |

### (5) Attached Bibliography

1. Κουτσόπουλος, Κ. (2009): Πραγματεία Ανάλυσης Χώρου: Θεωρία και Τεχνικές, Τόμος Α, Εκδόσεις Παπασωτηρίου, Αθήνα
2. Φώτης, Κ. (2009): Ποσοτική Χωρική Ανάλυση, Εκδόσεις Γκοβόστης, Αθήνα
4. O'Sullivan D. and Unwin, D.J. (2003): Geographic Information Analysis, John Wiley & Sons, New York
6. Haining, R. (2003): Spatial Data Analysis: Theory and Practice, Cambridge University Press, Cambridge, UK
8. Bailey, T.C. and Gatrell, A.C. (1995): Interactive Spatial Data Analysis, Prentice Hall, Upper Saddle River, New Jersey