
COURSE: SISTEMI DI ELABORAZIONE DEI DATI TERRITORIALI SSD ING-INF/05

ACADEMIC YEAR:2017-2018

TYPE OF EDUCATIONAL ACTIVITY: Basic

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mobile (optional):

Language: Italian

ECTS: 6 (6 lessons,
0 tutorials/practice)n. of hours: 56 (56
lessons, 0
tutorials/practice)Campus:**Potenza**
Dept./School:**Dipartimento**
Scienze
Program:**di** Semester:
From 5 Oct. 2017 to 15-31 Jan
2018
web:

EDUCATIONAL GOALS AND EXPECTED LEARNING OUTCOMES

- *The course will provide the fundamental principles of GIS and Open Data.*
 - *More particularly, the course provides to the students the useful notions to analyze the main characteristics of a geographical area using GIS technologies, highlighting the critical issues.*
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PRE-REQUIREMENTS

- *The course does not require any specific prerequisites*
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SYLLABUS

1. Principles of cartography, EPSG codes and Introduction to Geographic Information Systems
 2. Google earth: editing, search paths, navigation
 3. Introduction to QuantumGIS
 4. The vector and raster data (symbolology, properties, editing)
 5. Online Converters of geographic data
 6. Integration of data: QuantumGIS and Google earth
 7. Geographic data and WEB: Geoportale Nazionale, RSDI
 8. The system of Plugins in Quantum GIS: research, installation and use of some plugins
 9. Metadata and Interoperability
 10. Managing a CAD file, extraction of contour lines
 11. Digital Terrain Analysis
 12. Notes on the use of app for geoinformation
 13. Hydrological analysis
 14. Layout
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TEACHING METHODS

The course includes many hours of reading on the theoretical aspects, and many hours of training on geographic information systems and applications of Land Suitability analysis.

EVALUATION METHODS

Oral examination, Discussion of a project work

TEXTBOOKS AND ON-LINE EDUCATIONAL MATERIAL

- Beniamino Murgante, *L'informazione geografica a supporto della pianificazione territoriale*, FrancoAngeli
 - Laurini R. Thompson D. *Fundamentals of Spatial Information Systems* ISBN-13: 978-0124383807 ISBN-10: 0124383807
 - David W. Rhind e Michael Frank Goodchild, *Geographic Information Systems and Science*
 - <http://www.qgistutorials.com/it/index.html#>
 - <https://www.youtube.com/playlist?list=PLc5INoe6kboYIX4vz4Zcju2hZSb7rdL17>
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The main educational resources are shared in Googleclassroom.

INTERACTION WITH STUDENTS

Theoretical lectures and exercises.

EXAMINATION SESSIONS (FORECAST)¹

8 February 2018, 23 February 2018, 19 April 2018, 08 June 2018, 13 July 2018, 27 July 2018, 14 September 2018, 12 October 2018, 16 November 2018, 14 December 2018.

SEMINARS BY EXTERNAL EXPERTS YES ☐ NO ☒

FURTHER INFORMATION

¹Subject to possible changes: check the web site of the Teacher or the Department/School for updates.