Syllabus

Dati sull’attività formativa

Denominazione insegnamento: Corso Integrato Tecnica urbanistica modulo A

Course: Regional and Urban Planning A: Sustainable Planning and GeoDesign

Corso di studio: Scienze dell’Architettura

Discipline: ICAR/20 URBAN AND REGIONAL PLANNING

Year: 3 Semester: 1

Credits\(^1\): 4 Lectures (n° hours): 30 Lab (n° hours): 14

Seminars (n° hours): 6

PROF. MICHELE CAMPAGNA

Department: DICAAR Dipartimento di Ingegneria Civile Ambientale e Architettura
Discipline: ICAR/20 8/F1 Tecnica e Pianificazione Urbanistica

\(^1\) 1 CFU equals 12.5 hours lectures/labs + 12.5 hours individual study.
Syllabus

Learning outcomes:
1. The Module A (1st semester) of the course - "Sustainable Planning and GeoDesign" - deals with principles, methods and application of spatial analysis of environmental, regional and urban systems for spatial planning and design.

Course contents:
1. The Module A includes, but it is not limited to, the following main topics:
   Planning Theory; Planning Systems and regulations (ref. EU/Italy); Environmental and Land-use Planning; Spatial Analysis of Regional and Urban Systems; Spatial decision-making; Public participation in planning; Spatial Data Infrastructures; Geographic Information Systems and Science; Environmental Impact Assessment (EIA) and Strategic Environmental Assessment (SEA); Sustainable development; GeoDesign.

Lectures:
- Introduction to Sustainable Planning and GeoDesign
- Geo-demographic Analysis in spatial planning
- Environmental Analysis in spatial planning
- GIS and GIScience
- GI and spatial analysis in planning
- Planning theory: from rational to communicative planning
- Evaluation in planning
- Land use planning
- Spatial Multicriteria analysis
- Land Suitability Analysis
- Carrying Capacity Analysis
- The Italian Planning System and regulations
- Environmental Impact Assessment
- Strategic Environmental Assessment
- GeoDesign
- Public participation in Planning
- Planning sustainable development
- Regional Landscape Planning
- Local land-use planning
- Conclusions

Geodesign Lab
- Local land-use planning

Teaching methods
Lectures, seminars and hand-on tutorials.

Assessment methods
1. Written exam (3 open questions IT or EN)
2. Evaluation of Geodesign lab results (delivery deadline to be confirmed).
References:

- ALEXANDER E., Introduzione alla pianificazione, Clean Edizioni, Napoli, 1997 – (Cap. IV e V)
- BETTTINI V. et al. Metodologie di valutazione dell’impatto ambientale, Clup, Venezia 1988 (Urbanistica)
- CAMPAGNA M. Gis for Sustainable Development, Taylor and Francis, Boca Raton 2005 CAPITOLO 1
- Cartelle materiali bibliografici disponibili presso la biblioteca DICAAR di architettura e urbanistica c/o piazza d’Armi
- GABELLINI P. Tecniche urbanistiche, Carocci, Roma 2000
- MATERIALI INTEGRATIVI FORNITI DURANTE IL CORSO E DISPONIBILI SUL SITO http://people.unica.it/campagna
- MERCANDINO A., Urbanistica Tecnica, Ed. Sole 24 Ore, Milano 2001
- Zeiler (1999) Modelling our world: the esri guide to geodatabase design, ESRI press (Cap. 1, 2, 3, 4)

Reference documents and regulations

- EIA Directives: (85/337/EEC) + (97/11/EC)
- IN SPIRE DIRECTIVE 2007/2/EC http://inspire.jrc.it
- SEA Directive: 2001/42/EC

Suggested readings

- CAMPAGNA M, Tecnologie per l’informazione spaziale per il governo dei processi insediativi, Angeli, Milano, 2004 – (Cap. I, II, III, IV)
- CAMPAGNA, M. Gis for Sustainable Development, Taylor and Francis, Boca Raton 2005
- LONGLEY P, GOODCHILD MF, MAGUIRE D, RHIND S, Geographic Information Systems and Science
- MC HARG I. Progettare con la natura, Muzzio, Padova 1989

Relevant Journals for further readings

- Computer Environment Urban Systems
- Environment and Planning A
- Environment and Planning B: Planning and Design
- International Journal of Environmental Technology and Management
- Journal of American Planning Association
- Journal of Geographic Information Decision and Analysis
- Journal of Planning Education and Research
- Landscape and Urban Planning
- Town Planning Review
- URISA Journal

Further information
For any inquiry please contact Prof. Campagna at campagna@unica.it