

## Syllabus

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### 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<sup>1</sup>:** 4      *Lectures (n° hours):* 30      *Lab (n° hours):* 14

*Seminars (n° hours):* 6

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### Instructor

**PROF. MICHELE CAMPAGNA**

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

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<sup>1</sup> 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)
- ARNSTEIN, SR. "A Ladder of Citizen Participation," JAIP, Vol. 35, No. 4, July 1969, pp. 216-224
- BETTINI 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
- KHAKEE, A. 1998 'Evaluation and planning: inseparable concepts', Town Planning Review, Vol. 69, No. 4, pp.359–374.
- 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

- AGENDA 21: <http://www.un.org/esa/sustdev/documents/agenda21/index.htm>
- EIA Directives: (85/337/EEC) + (97/11/EC)
- INSPIRE DIRECTIVE 2007/2/EC <http://inspire.jrc.it>
- RIO DECLARATION ON SUSTAINABLE DEVELOPMENT:  
<http://www.unep.org/Documents/Default.asp?DocumentID=78&ArticleID=1163>
- 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
- CANTER, L.W. Environmental impact assessment. - 2. ed. - New York [etc.] ; McGraw-Hill, c1996. - XX, 660 p. ; 25 cm
- COLOMBO G., et alii, Manuale di Urbanistica, Ed. Sole 24 Ore, Milano 2001
- HALL P, 2002, Urban & Regional Planning, IV edition, Routledge, London (cap IV, VI, VII, VIII)
- LAWRENCE, D, 2000, "Planning theories and environmental impact assessment", Environmental Impact Assessment Review, 20, pp. 607–625
- LONGLEY P, GOODCHILD MF, MAGUIRE D, RHIND S, Geographic Information Systems and Science
- M.F. Goodchild (2010) Towards GeoDesign: Repurposing cartography and GIS? Cartographic Perspectives 66 (Fall 2010): 7–22. [www.geog.ucsb.edu/~good/papers/498.pdf](http://www.geog.ucsb.edu/~good/papers/498.pdf)
- MC HARG I. Progettare con la natura, Muzzio, Padova 1989
- SALZANO E. Fondamenti di Urbanistica, Laterza Bari, 2003

## 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](mailto:campagna@unica.it)