

Course guide

310519 - 310519 - Smart Territories

Last modified: 11/12/2023

Unit in charge: Barcelona School of Building Construction
Teaching unit: 751 - DECA - Department of Civil and Environmental Engineering.

Degree: MASTER'S DEGREE IN BUILDING CONSTRUCTION MANAGEMENT (Syllabus 2015). (Optional subject).

Academic year: 2023 **ECTS Credits:** 5.0 **Languages:** Spanish

LECTURER

Coordinating lecturer: MIGUEL YURY MAYORGA CÁRDENAS

Others:

DEGREE COMPETENCES TO WHICH THE SUBJECT CONTRIBUTES

Specific:

CE08MUGE. Apply planning techniques of production from its strategic and operative aspects.

Generical:

CG4MUGE. Analyse, evaluate and synthesise critically, the information to propose solutions or alternatives to situations arising from building management processes.

Transversal:

01 EIN. ENTREPRENEURSHIP AND INNOVATION: Knowing about and understanding how businesses are run and the sciences that govern their activity. Having the ability to understand labor laws and how planning, industrial and marketing strategies, quality and profits relate to each other.

02 SCS. SUSTAINABILITY AND SOCIAL COMMITMENT. Being aware of and understanding the complexity of social and economic phenomena that characterize the welfare society. Having the ability to relate welfare to globalization and sustainability. Being able to make a balanced use of techniques, technology, the economy and sustainability.

05 TEQ. TEAMWORK. Being able to work as a team player, either as a member or as a leader. Contributing to projects pragmatically and responsibly, by reaching commitments in accordance to the resources that are available.

Basic:

CB8. The students must be able to integrate knowledges and front to the complexity to formulate opinions from an information which, being incomplete or limited, includes reflections about the social and ethical responsibilities linked to the application of their knowledges and opinions.

CB9. The students must be able to communicate their conclusions and the knowledges and ultimate reasons which support to specialised and non-specialised audiences in a clear mode and without ambiguities.

TEACHING METHODOLOGY

- Exhibition and realization of critical readings, synthesis, presentation and essay writing
- Exercises for comparison and case evaluation
- Making reflections, arguments and debates
- Carry out analysis, evaluation and elaboration of proposals

LEARNING OBJECTIVES OF THE SUBJECT

Introduce from a critical, holistic and integral approach, through reflections on theoretical concepts, exemplification of current cases and practical exercises, a vision on the potentials of the use of new technologies in management and improvement of urban habitat conditions.

In order to:

- Understand the advantages and limits of the application of new technologies in the city.
- Formulate a set of criteria for the appraisal of applications, case studies and experiences.
- Propose new technological solutions for the management of the city.

STUDY LOAD

Type	Hours	Percentage
Hours large group	15,0	12.00
Hours small group	5,0	4.00
Hours medium group	5,0	4.00
Guided activities	10,0	8.00
Self study	90,0	72.00

Total learning time: 125 h

CONTENTS

Smart Cities

Description:

Introduce from a critical, holistic and integral approach, through reflections on theoretical concepts, exemplification of current cases and practical exercises, a vision on the potentials of the use of new technologies in management and improvement of urban habitat conditions.

Specific objectives:

- Understand the advantages and limits of the application of new technologies in the city.
- Formulate a set of criteria for the appraisal of applications, case studies and experiences.
- Propose new technological solutions for the management of the city.

Related activities:

- Conferences
- Visits

Full-or-part-time: 30h

Theory classes: 13h 20m

Practical classes: 13h 20m

Guided activities: 3h 20m

GRADING SYSTEM

BIBLIOGRAPHY

Basic:

- BONOMI, Aldo & MASIERO, Roberto . Dalla smart city alla smart land. Marsilio editori, 2014.
- AAVV. Smart City Trends Tendencias en las Ciudades Inteligentes y oportunidades para los sectores del hábitat. ITC - AIDIMA , ISBN 978-84-941029-3-6.
- CASTELLS, Manuel. ""Space of Flows, Space of Places: Materials for a Theory of Urbanism in the Information Age"". GRAHAM, Stephen (ed) . The Cybercities . 2006.
- ""La mitificación de las nuevas tecnologías como respuesta a los retos de las ciudades contemporáneas"". Economía Industrial nº 395.
- Smart Cities: un primer paso hacia la internet de las cosas. FUNDACIÓN TELEFONICA, 2011.
- MARCUSE y Margarit MAYER (eds). Cities for people, not for profit. Critical urban theory and the right to the city. Routledge, 2012.
- MARCH, Hug y Ramón RIBERA-FUMAZ . ""Una revisión crítica desde la Ecología Política Urbana del concepto Smart City en el Estado español"". Ecología Política: Cuadernos de debate internacional, 47:29-36.
- MAYORGA, Miguel & FONTANA, Maria Pia. ""Hacia una calle más habitable: nuevas tecnologías y movilidad sostenible"". SERES URBANOS. EL PAÍS, 10/10/2108 .
- AAVV. Smart City Trends Tendencias en las Ciudades Inteligentes y oportunidades para los sectores del hábitat. ITC y AIDIMA , 2015.
- MAYORGA, Miguel. Hacia un nuevo urbanismo. Material docente Master en ciudad y urbanismo UOC, 2016.
- CABRERA, Daniel . Lo tecnológico y lo imaginario. Las nuevas tecnologías como creencias y esperanzas colectivas. 2006.
- "Smart Cities: Definitions, Dimensions, Performance, and Initiatives", en of Journal of Urban Technology, Volume 22, Issue 1, 2015.
- MONTEJANO, Jorge Alberto. ""El impacto de las nuevas tecnologías en la "explosión" de la ciudad"". URBS. Revista de Estudios Urbanos y Ciencias Sociales. Volumen 3, número 1, páginas 45-67.
- MAYORGA, M. et Alt. Estudio de transversalidad de la Avenida Meridiana. 2017.
- WINNER, Langdon . La ballena y el reactor. Una búsqueda de los límites en la era de la alta tecnología. GEDISA, 1987.
- "For a close and livable public space: four proposals in Barcelona". MAYORGA, Miguel & FONTANA, Maria Pia . Resilient and Sustainable Cities Research, Policy and Practice. Amsterdam: ELSEVIER, 2023.