

## 310519 - Smart Cities

Coordinating unit:	310 - EPSEB - Barcelona School of Building Construction		
Teaching unit:	751 - DECA - Department of Civil and Environmental Engineering		
Academic year:	2019		
Degree:	MASTER'S DEGREE IN BUILDING CONSTRUCTION MANAGEMENT (Syllabus 2015). (Teaching unit Optional)		
ECTS credits:	5	Teaching languages:	Spanish

### Teaching staff

Coordinator:	MIGUEL YURY MAYORGA CÁRDENAS
Others:	JOSEP MERCADÉ

### Degree competences to which the subject contributes

#### 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.

#### 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.

### 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:

## 310519 - Smart Cities

- 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

Total learning time: 125h	Hours large group:	15h	12.00%
	Hours medium group:	5h	4.00%
	Hours small group:	5h	4.00%
	Guided activities:	10h	8.00%
	Self study:	90h	72.00%

### Content

Smart Cities	<p>Learning time: 30h</p> <p>Theory classes: 13h 20m</p> <p>Practical classes: 13h 20m</p> <p>Guided activities: 3h 20m</p>
<p><b>Description:</b> 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.</p> <p><b>Related activities:</b></p> <ul style="list-style-type: none"> <li>- Conferences</li> <li>- Visits</li> </ul> <p><b>Specific objectives:</b></p> <ul style="list-style-type: none"> <li>- Understand the advantages and limits of the application of new technologies in the city.</li> <li>- Formulate a set of criteria for the appraisal of applications, case studies and experiences.</li> <li>- Propose new technological solutions for the management of the city.</li> </ul>	

## 310519 - Smart Cities

### Bibliography

#### Basic:

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