

## 210189 - UE CEP - Urbanism and Ecology. Concepts, Strategies and Projects

Coordinating unit: 210 - ETSAB - Barcelona School of Architecture  
Teaching unit: 740 - UOT - Department of Urbanism and Regional Planning  
Academic year: 2019  
Degree: BACHELOR'S DEGREE IN LANDSCAPE ARCHITECTURE (Syllabus 2019). (Teaching unit Optional)  
DEGREE IN ARCHITECTURE STUDIES (Syllabus 2014). (Teaching unit Optional)  
DEGREE IN ARCHITECTURE (Syllabus 2010). (Teaching unit Optional)  
ECTS credits: 5 Teaching languages: English

### Teaching staff

Coordinator: CARLES CROSAS ARMENGOL - MIGUEL J PEREA SOLANO  
Others: Segon quadrimestre:  
CARLES CROSAS ARMENGOL - 341  
MIGUEL J PEREA SOLANO - 341

### Requirements

Previous Urban Design/ Urban Planning courses

### Degree competences to which the subject contributes

#### Basic:

1. Translation from Spanish slope
2. Translation from Spanish slope
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#### Specific:

18. Translation from Spanish slope
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#### Generical:

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9. Translation from Spanish slope
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11. Translation from Spanish slope
12. Translation from Spanish slope

Transversal:

13. Translation from Spanish slope
14. Translation from Spanish slope
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16. Translation from Spanish slope
17. Translation from Spanish slope

### Teaching methodology

Go to catalan or spanish version.

### Learning objectives of the subject

The course offers a reflection on various emerging paradigms of contemporary urbanism from both a practical and theoretical point of view. In the framework of the metropolitan scale, the designing potential of urban ecology, urban metabolism, resilience and long-lasting projects are examined in order to understand key elements of these concepts and their capacity for generating new urban shapes.

The discussion is addressed in the framework of a technical debate on the contemporary city, the production of its forms and constitutive interrelations. The practical exploration of these concepts and their associated urban design resources must allow enriching the set of instruments for the development of broad-spectrum projects and urban projects.

### Study load

Total learning time: 125h	Hours large group:	55h	44.00%
	Self study:	70h	56.00%

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### Content

#### [Eco]systemic Urbanism

Learning time: 125h

Theory classes: 55h

Self study : 70h

#### Description:

We propose an immersion into topics concerning ecology and sustainability, often related on the one hand, at the building design scale (new technologies) and on the other hand, at the scale of territorial planning. Main goal is to explore the opportunities between the binomial Urbanism and Ecology at the design project intermediate scale, dealing with flows, cycles and matter in urban context.

#### Paradigms

1. [Eco]systemic Urbanism. Introduction and background
2. Ecology of the city and territory. Concepts and resources
3. Metropolitan metabolism: networks and systems
4. Sustainability: tectonic approaches and systemic conceptualizations
5. Urban resilience
6. Long-lasting Urban Projects.
7. Mobility, networks and intersections
8. "Upcycling cities": new urban cycles.

The more theoretical and instrumental analysis and reflection work will be complemented by some practical exercises for implementation and design within the Barcelona Metropolis area, following the guidelines of previous courses in which workshops and work visits could be organized in collaboration with IUAV-Venezia and the Free University of Bruxelles in the framework of the project Strategic Partnership "Integrated Urban Design E-studio For 21st Century Sustainable Metropoloitan Region" (15PS0004) pel periode 2015-2017. See <http://www.metropolitan-estudio.eu>

### Qualification system

The evaluation is ongoing and takes into account the active participation and contribution in seminars and classes (40%) and design practice (30%) including the mandatory attendance and outcome during the Intensive Week (30%) at the end of the term. Assignments will be elaborated in groups of 2 or 3 students but individual contribution will also be evaluated. The full day participation in the intensive week in June is mandatory. Any student not being able to participate will not pass the course and any overlap with other intensive subjects will not be accepted.

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### Bibliography

#### Basic:

Mostafavi, M.; Doherty, G. (ed.). Ecological urbanism. Cambridge; Baden: Harvard University; Lars Müller, 2010. ISBN 9783037781890.

Masbounji, A. (ed.). Projets urbains durables: stratégies. Paris: Le Moniteur, 2012. ISBN 9782281195309.

Terradas, J. "L'ecosistema urbà". Rueda, Salvador (ed.). La Ciudad sostenible = la Ciutat sostenible = the Sustainable city. Barcelona: Centre de Cultura Contemporània de Barcelona, 1998. p. 75-84.

Grulois, G.; Crosas, C.; Perea, J. Upcycle Barcelona: cogenerative Design Strategies for a Sustainable Urban Metabolism [online]. Bruxelles; Barcelona: LoUIsE & LUB, 2014 [Consultation: 28/07/2019]. Available on: <<http://difusion.ulb.ac.be/vufind/Record/ULB-DIPOT:oai:dipot.ulb.ac.be:2013/205878/Holdings>>.

Designing territorial metabolism: Barcelona, Brussels, and Venice. Berlin: Jovis, 2018. ISBN 9783868594898.

#### Complementary:

Graham, S. Splintering urbanism: networked infrastructures, technological mobilities and the urban condition. New York: Routledge, 2001. ISBN 0415189659.

Water and asphalt: the project of isotropy. Zürich: Park Books, 2016. ISBN 9783906027715.

Landscape and energy: designing transition. Rotterdam: Nai010 Publishers, 2014. ISBN 9789462081130.

Cody, B. Form follows energy: using natural forces to maximize performance. Basel: Birkhäuser, 2017. ISBN 9783990432020.