

Course guide

210931 - EC P - Ecology and Landscape

Last modified: 12/07/2024

Unit in charge: Barcelona School of Architecture
Teaching unit: 745 - DEAB - Department of Agri-Food Engineering and Biotechnology.

Degree: MASTER'S DEGREE IN LANDSCAPE ARCHITECTURE (Syllabus 2015). (Optional subject).

Academic year: 2024 **ECTS Credits:** 3.0 **Languages:** Catalan, Spanish, English

LECTURER

Coordinating lecturer: DANIEL GOMEZ DE ZAMORA MARTINEZ

Others: Primer quadrimestre:
DANIEL GOMEZ DE ZAMORA MARTINEZ - 1R1S

TEACHING METHODOLOGY

Theoretical classes.

Lectures in master class format where the disciplinary body is presented and main concepts are established. To attain knowledge, bibliographic material is provided, this material will be worked independently and will be discussed in complementary activities. Thematic lectures by external speakers that develop examples of professional work on the main themes of landscape ecology.

Field trips.

Visits and fieldwork to explore landscape projects developed under the criteria of landscape ecology.

Personal untutored work

This activity includes, mandatory, the performance of work derived from classes.

LEARNING OBJECTIVES OF THE SUBJECT

- Know, understand and apply the basic concepts of landscape ecology
- Know, understand and apply the basic concepts socio-ecology.

STUDY LOAD

Type	Hours	Percentage
Hours large group	22,5	30.00
Self study	52,5	70.00

Total learning time: 75 h



CONTENTS

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Description:

Develop the basics of landscape ecology and socio-ecology:

- 1) Basis of Landscape Ecology: tile, connector array; Ecotone: edge effects; Ecological connectivity; Habitat fragmentation.
- 2) Urban ecology: function and metabolism; Green city infrastructure, urban ecosystem services system. Quality indicators of urban space.
- 3) Ecological landscape planning: green infrastructure and territory, the territorial matrix of ecosystem services
- 4) Tertiary landscape and manage sustainable traditional uses of the landscape.
- 5) Basic concepts of ecological economics.

Full-or-part-time: 45h

Theory classes: 30h

Laboratory classes: 15h

GRADING SYSTEM

The final summative evaluation will be the result of the partial evaluations obtained in the various activities carried out in accordance with the planning of the course.

The evaluative activities consist of an exam on the subjects developed in the theoretical classes (40%); a practical exercise in ecological analysis of a concrete territory (40%); and a summary text of each of the visits (20%).

BIBLIOGRAPHY

Basic:

- Forman, Richard T. T; Godron, M. Landscape ecology. New York [etc.]: Wiley, 1986. ISBN 9780471870371.
- Farina, A. Ecología del paisaje. San Vicente del Raspeig: Publicaciones de la Universidad de Alicante, 2011. ISBN 9788497171670.
- "Infraestructuras transversales a cursos fluviales e infraestructura lineales de conducción de agua. Medidas para la reducción de sus impactos sobre la fauna y los hábitats fluviales". Book of abstracts of the XV Congress of the Iberian Association of Limnology. p. 171-172.
- Forman, Richard T. T. Land mosaics: the ecology of landscapes and regions. Cambridge [etc.]: Cambridge University Press, 1995. ISBN 9780521479806.
- Forman, Richard T. T. Urban regions: ecology and planning beyond the city. Cambridge: Cambridge University Press, 2008. ISBN 9780521670760.
- Forman, Richard T. T. Urban ecology : science of cities. Cambridge: Cambridge University Press, 2014. ISBN 9780521188241.
- Mayor, X. Connectivitat ecològica: elements teòrics, determinació i aplicació : importància de la connectivitat ecològica com a instrument de preservació de l'entorn i d'ordenació del territori a Catalunya. Barcelona: Generalitat de Catalunya, Consell Assessor per al Desenvolupament Sostenible, 2008. ISBN 9788439376859.

RESOURCES

Hyperlink:

- Intranet Docent. <https://atenea.upc.edu/moodle/login/index>