Course guides
290610 - DISAMED14 - Environmental Building Design

Last modified: 06/10/2020

Unit in charge: Vallès School of Architecture
Teaching unit: 753 - TA - Department of Architectural Technology.

Degree: DEGREE IN ARCHITECTURE STUDIES (Syllabus 2014). (Compulsory subject).

Academic year: 2020 **ECTS Credits:** 4.0 **Languages:** Catalan, Spanish

LECTURER

Coordinating lecturer: ANNA PAGES RAMON

Others: ANA CASAS PORTET
ANNA PAGES RAMON

DEGREE COMPETENCES TO WHICH THE SUBJECT CONTRIBUTES

Specific:
ET9G. The ability to conceive, calculate, design and install water supply, sewage, heating and air conditioning systems and integrate them into existing buildings and urban areas (T).
ET11G. The ability to design building and urban installations for generating and supplying electricity, audiovisual communication, acoustic conditioning and artificial lighting.

Generical:
CE9. Adequate knowledge of the physical problems, technologies and functions of buildings so as to provide them with comfortable indoor conditions and protection from climate factors.

TEACHING METHODOLOGY

LEARNING OBJECTIVES OF THE SUBJECT

To know the basic concepts of sustainability related to architecture. To know how to relate the impact that the way of projecting and building has on the energy and comfort behavior of the building. Know how to quantify the phenomena of sun, light, hygrothermal and acoustic in the building. To know how to incorporate in a basic way the concepts developed in the subject to the project process. Recognize the environmental implications of architecture. To know tools and processes to apply sustainability criteria in the design of the building.

STUDY LOAD

Type	Hours	Percentage
Self study	56,0	56.00
Hours large group	22,0	22.00
Hours medium group	22,0	22.00

Total learning time: 100 h

CONTENTS

Syllabus

Description:
content english

Full-or-part-time: 44h
Theory classes: 22h
Practical classes: 22h

GRADING SYSTEM

BIBLIOGRAPHY

Basic:
- Coch Roura, Helena; Serra Florensa, Rafael. El Disseny energètic a l'arquitectura. Barcelona: Edicions UPC, 1994. ISBN 8476533780.
- Cuchí, Albert. Arquitectura i sostenibilitat [Recurs electrònic] [on line]. Barcelona: Edicions UPC, DL 2006 [Consultation: 29/11/2016]. Available on: http://upcommons.upc.edu/bitstream/handle/2099.3/36640/9788498800067.pdf?sequence=1&isAllowed=y. ISBN 9788498800067.
- Givoni, Baruch. L'Homme, l'architecture et le climat. Paris: Eds. du Moniteur, 1978. ISBN 2862820148.
- Serra Florensa, Rafael; Labastida Azemar, Francisco de P; Fernández Roldán, Miguel. Control acústico en los edificios. 2a ed., incluye la NBE-CA-82. Barcelona: La Gaya Ciencia : Publicaciones del Colegio Oficial de Arquitectos de Cataluña, 1983. ISBN 8470802283.
- Olgyay, Victor. Arquitectura y clima : manual de diseño bioclimático para arquitectos y urbanistas. Barcelona: Gustavo Gili, DL 1998. ISBN 8425214882.
- Un Vitruvio ecológico : principios y práctica del proyecto arquitectónico sostenible. Barcelona: Gustavo Gili, DL 2007. ISBN 9788425221552.
- Ramón, Fernando. Ropa, sudor y arquitecturas. Madrid: Blume, DL 1980. ISBN 8472141934.