Course guide
290627 - ESTRUCIV14 - Reinforced Concrete Structures

Last modified: 01/02/2024

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: 2023 **ECTS Credits:** 3.0 **Languages:** Catalan

LECTURER

Coordinating lecturer: Gimferrer Vilaplana, Xavier

Others: Gimferrer Vilaplana, Xavier
Padros Salles, Carles

DEGREE COMPETENCES TO WHICH THE SUBJECT CONTRIBUTES

Specific:
ET7G. The ability to conceive, calculate, design and implement systems for the division of interiors, carpentry, stairs and other finishing work and integrate them into existing buildings and urban areas (T).
ET2G. An aptitude for applying technical and building standards.
ET6G. The ability to conceive, calculate, design and erect building structures and integrate them into existing buildings and urban areas (T).

Generical:
CE1. An aptitude for creating architectural projects that meet both aesthetic and technical demands.
CE8. An understanding of structural, construction and engineering design problems related to building design.

TEACHING METHODOLOGY

LEARNING OBJECTIVES OF THE SUBJECT

The objective is for the student to understand and learn the general basic concepts for the overall design of building structures, the approach and suitability of the structural typology and material used (reinforced concrete). Likewise, the course aims to establish the fundamental concepts to deepen and expand later on more specific or complex subjects through optional subjects and postgraduate programs.

STUDY LOAD

Type	Hours	Percentage
Self study	42,0	56.00
Hours large group	16,5	22.00
Hours medium group	16,5	22.00

Total learning time: 75 h

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Syllabus

Description:
The objective is for the student to understand and learn the general basic concepts for the overall design of building structures, the approach and suitability of the structural typology and material used (reinforced concrete). Likewise, the course aims to establish the fundamental concepts to deepen and expand later on more specific or complex subjects through optional subjects and postgraduate programs.

Full-or-part-time: 33h
Theory classes: 16h 30m
Practical classes: 16h 30m

GRADING SYSTEM

BIBLIOGRAPHY

Basic:
- EHE-08 : instrucción de Hormigón Estructural : con comentarios de los miembros de la Comisión Permanente del Hormigón. 4ª ed. Madrid: Ministerio de Fomento, Centro de Publicaciones, 2010. ISBN 9788449808753.
- Buxadé Ribot, Carles; Margarit, Joan. Seccions i sostres sense bigues de formigó armat : disseny i càlcul. Barcelona: Edicions UPC, 1998. ISBN 8483012553.
- Calavera Ruiz, José. Proyecto y cálculo de estructuras de hormigón armado para edificios. [Bilbao]: Intemac, 1985. ISBN 8439840039.
- Gómez Bernabé, Pepa; Gómez Serrano, José. Estructures de formigó armat : predimensionament i càlcul de seccions. Barcelona: Edicions UPC, 2002. ISBN 8483015862.
- Jiménez Montoya, P. Hormigón armado. 14a ed. Barcelona: Gustavo Gili, 2000. ISBN 842521825X.