



Course guide

820442 - EMM - Steel Structures

Last modified: 27/05/2024

Unit in charge: Barcelona East School of Engineering
Teaching unit: 737 - RMEE - Department of Strength of Materials and Structural Engineering.

Degree: BACHELOR'S DEGREE IN MECHANICAL ENGINEERING (Syllabus 2009). (Optional subject).

Academic year: 2024 **ECTS Credits:** 6.0 **Languages:** Catalan

LECTURER

Coordinating lecturer: VICTOR MARTINEZ VALVERDE

Others: Primer quadrimestre:
VICTOR MARTINEZ VALVERDE - T11

Segon quadrimestre:
VICTOR MARTINEZ VALVERDE - T11

DEGREE COMPETENCES TO WHICH THE SUBJECT CONTRIBUTES

Transversal:

1. SELF-DIRECTED LEARNING - Level 3. Applying the knowledge gained in completing a task according to its relevance and importance. Deciding how to carry out a task, the amount of time to be devoted to it and the most suitable information sources.
2. TEAMWORK - Level 3. Managing and making work groups effective. Resolving possible conflicts, valuing working with others, assessing the effectiveness of a team and presenting the final results.

TEACHING METHODOLOGY

LEARNING OBJECTIVES OF THE SUBJECT

STUDY LOAD

Type	Hours	Percentage
Hours small group	15,0	10.00
Hours large group	45,0	30.00
Self study	90,0	60.00

Total learning time: 150 h

CONTENTS

(ENG) Tema 1: INTRODUCCIÓ

Full-or-part-time: 7h
Theory classes: 2h
Self study : 5h



(ENG) Tema 2: BASES DE CàLCUL

Full-or-part-time: 18h
Theory classes: 6h
Self study : 12h

(ENG) Tema 3: TRACCIÓ I COMPRESSIÓ

Full-or-part-time: 21h
Theory classes: 6h
Laboratory classes: 3h
Self study : 12h

(ENG) Tema 4: TALLANT I FLEXIÓ

Full-or-part-time: 21h
Theory classes: 6h
Laboratory classes: 3h
Self study : 12h

(ENG) Tema 5: UNIONS

Full-or-part-time: 21h
Theory classes: 6h
Laboratory classes: 3h
Self study : 12h

(ENG) Tema 6: PROTECCIÓ DE LES ESTRUCTURES METÀL·LIQUES

Full-or-part-time: 21h
Theory classes: 6h
Laboratory classes: 3h
Self study : 12h

(ENG) Tema 7: CONTROL DE QUALITAT

Full-or-part-time: 19h
Theory classes: 6h
Laboratory classes: 3h
Self study : 10h

(ENG) Tema 8: PROJECTES

Full-or-part-time: 14h
Theory classes: 4h
Self study : 10h



(ENG) Tema 9: PROCEDIMENTS DE CONSTRUCCIÓ

Full-or-part-time: 8h

Theory classes: 3h

Self study : 5h

GRADING SYSTEM

BIBLIOGRAPHY

Basic:

- Espanya. Código Técnico de la Edificación : (C.T.E.) [on line]. Madrid: Ministerio de Vivienda, 2006 [Consultation: 04/05/2020]. Available on: <https://www.codigotecnico.org/index.php/menu-documentoscte.html>. ISBN 8434016311.
- Reyes Rodríguez, Antonio Manuel. Manual imprescindible de CYPE 2010 : cálculo de estructuras metálicas con Nuevo Metal 3D. Madrid: Anaya Multimedia, cop. 2010. ISBN 9788441526570.

RESOURCES

Audiovisual material:

- Aula amb CANÓ
- Aula de pràctiques amb CYPE