

Course guide

240EM122 - 240EM122 - Design, Ecodesign and Recycling

Last modified: 26/06/2025

Unit in charge: Barcelona East School of Engineering

Teaching unit: 702 - CEM - Department of Materials Science and Engineering.

Degree: ERASMUS MUNDUS MASTER'S DEGREE IN ADVANCED MATERIALS SCIENCE AND ENGINEERING (Syllabus 2014). (Optional subject).

Academic year: 2025

ECTS Credits: 4.5

Languages: Spanish

LECTURER

Coordinating lecturer: MARIA LLUÏSA MASPOCH RULDUA

Others: Jessica Calvo Muñoz
Jonathan Cailloux

DEGREE COMPETENCES TO WHICH THE SUBJECT CONTRIBUTES

Specific:

CEMCEM-04. (ENG) Realitzar estudis de caracterització, avaluació i certificació de materials segons les seves aplicacions

Transversal:

01 EIN N2. ENTREPRENEURSHIP AND INNOVATION - Level 2. Taking initiatives that give rise to opportunities and to new products and solutions, doing so with a vision of process implementation and market understanding, and involving others in projects that have to be carried out.

05 TEQ N2. TEAMWORK - Level 2. Contributing to the consolidation of a team by planning targets and working efficiently to favor communication, task assignment and cohesion.

03 TLG. THIRD LANGUAGE. Learning a third language, preferably English, to a degree of oral and written fluency that fits in with the future needs of the graduates of each course.

TEACHING METHODOLOGY

Subject in process of extinction. There is no teaching, the students that enroll it do so only with the right to an exam.

LEARNING OBJECTIVES OF THE SUBJECT

Review processes for manufacturing plastic parts

Know the principles of plastics design

Learn the basics to apply ecodesign criteria in product development

Know the principles of metals and plastics recycling

STUDY LOAD

Type	Hours	Percentage
Self study	72,0	64.00
Hours small group	13,5	12.00
Hours large group	27,0	24.00

Total learning time: 112.5 h



CONTENTS

title english

Description:

content english

Full-or-part-time: 15h

Practical classes: 4h 30m

Laboratory classes: 1h 30m

Self study : 9h

title english

Description:

content english

Full-or-part-time: 11h

Practical classes: 4h 30m

Laboratory classes: 2h

Self study : 4h 30m

title english

Description:

content english

Full-or-part-time: 10h 30m

Practical classes: 3h

Laboratory classes: 3h

Self study : 4h 30m

title english

Description:

content english

Full-or-part-time: 9h

Practical classes: 4h 30m

Self study : 4h 30m

title english

Description:

content english

Full-or-part-time: 15h 30m

Practical classes: 6h

Laboratory classes: 1h 30m

Self study : 8h



title english

Description:

content english

Full-or-part-time: 4h 30m

Practical classes: 1h 30m

Self study : 3h

title english

Description:

content english

Full-or-part-time: 7h 30m

Practical classes: 4h 30m

Self study : 3h

GRADING SYSTEM

Subject in process of extinction. There is only one final test that corresponds to 100% of the final grade of the subject.

BIBLIOGRAPHY

Basic:

- Ashby, M.F. Materials and the environment. 2nd ed. New York: Elsevier, 2013. ISBN 9780123859716.

RESOURCES

Audiovisual material:

- Nom recurs. Resource