

# 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**

Туре	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

**Date:** 18/10/2025 **Page:** 1 / 3



# **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

**Date:** 18/10/2025 **Page:** 2 / 3



# 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

**Date:** 18/10/2025 **Page:** 3 / 3