

## 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