66231 - Ecodesign and life cycle analysis

Información del Plan Docente

Academic Year	2018/19
Subject	66231 - Ecodesign and life cycle analysis
Faculty / School	110 - Escuela de Ingeniería y Arquitectura
Degree	531 - Master's in Chemical Engineering
ECTS	3.0
Year	
Semester	Half-yearly
Subject Type	Optional
Module	---

1.General information

1.1.Aims of the course

1.2.Context and importance of this course in the degree

1.3.Recommendations to take this course

2.Learning goals

2.1.Competences

2.2.Learning goals

2.3.Importance of learning goals

3.Assessment (1st and 2nd call)

3.1.Assessment tasks (description of tasks, marking system and assessment criteria)

4.Methodology, learning tasks, syllabus and resources

4.1.Methodological overview

The methodology followed in this course (**Ecodesign and life cycle analysis**) is oriented towards achievement of the learning objectives. It is based on participation and the active role of the student favors the development of communication and decision-making skills. A wide range of teaching and learning tasks are implemented, such as lectures, guided assignments, computer lab session, autonomous work, and tutorials.

Students are expected to participate actively in the class throughout the semester.

Classroom materials will be available via Moodle. These include a repository of the lecture notes used in class, the course syllabus, as well as other course-specific learning materials.

66231 - Ecodesign and life cycle analysis

Further information regarding the course will be provided on the first day of class.

4.2.Learning tasks

The course includes 3 ECTS organized according to:

- Lectures (0.6 ECTS: 15 hours, 2 weekly hours). The professor will explain the theoretical contents of the course and solve illustrative applied problems. The professor will proposed some exercises and cases for solving by students in class. Lectures will be complemented by problem-solving sessions and computer lab sessions. Although it is not a mandatory activity, regular attendance is highly recommended.
- Problem‐solving sessions (0.4 ECTS: 10 hours, 2 weekly hours).
- Computer lab session (0.2: 5 hours).
- Guided assignments. Students will complete assignments, problems and exercises related to concepts seen problem-solving sessions and lectures.
- Autonomous work (1.52 ECTS: 38 hours). Students are expected to study theory, solve problems, prepare works and oral presentation, and take exams.
- Tutorials (0.16 ECTS: 4 hours). The professor's office hours will be posted on Moodle and the Master's website to assist students with questions and doubts. It is beneficial for the student to come with clear and specific questions.
- Assessment (0.12: 3 hours).

4.3.Syllabus

The course will address the following topics:

Topic 1. Ecodesign concept: Contribution to sustainability through product design. Legal requirements in the eco-design of product.

Topic 2. Ecodesign methodology. Tools.

Topic 3. Life cycle analysis (LCA): Methodology, databases, tools. Implementation of the LCA for eco-design.

Topic 4. Product environmental statement: Self-environmental statement and eco-labeling.

4.4.Course planning and calendar

Further information concerning the timetable, classroom, office hours, assessment dates and other details regarding this course, will be provided on the first day of class or please refer to the website (https://eina.unizar.es/).

4.5.Bibliography and recommended resources