

66433 - Advanced Materials in Mechanical Engineering

Información del Plan Docente

Academic Year	2016/17
Academic center	110 - Escuela de Ingeniería y Arquitectura
Degree	536 - Master's in Mechanical Engineering
ECTS	4.5
Course	1
Period	Second semester
Subject Type	Optional
Module	---

1. Basic info

1.1. Recommendations to take this course

1.2. Activities and key dates for the course

2. Initiation

2.1. Learning outcomes that define the subject

2.2. Introduction

3. Context and competences

3.1. Goals

3.2. Context and meaning of the subject in the degree

3.3. Competences

3.4. Importance of learning outcomes

4. Evaluation

5. Activities and resources

5.1. General methodological presentation

The learning process that is designed for this subject is based on the following: In order for students to achieve the learning outcomes described above and acquire the skills designed for this subject, the following training activities are proposed: Lecture participatory A01 (15 contact hours) .Exposición by the teacher of the main contents of the subject.

This activity will take place in the classroom in person. A02 Troubleshooting and cases (15 contact hours). These classes are also conducted in the same classroom

lectures participatory. A03 Labs. (10 contact hours). A04 Special practices (5 hours attendance). A05 Carrying out practical work or research application. (30 hours of personal work) .The student will study several research articles that will give the teacher. These works may be individual or in pairs, depending on

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the number of students. Such work should be analyzed and seek the additional information necessary for full understanding. The student will prepare a report for each commissioned work and deliver it to the teacher. This work will be defended orally to the subject teachers and other students. A06: Tutoring. (5 hours) Hours personalized attention to students with the aim of reviewing and discussing the materials and topics presented in both theoretical and practical classes. A07: Study of theory. (30 hours) A08: Evaluation. (2.5 hours) A set of theoretical and reporting practices or work used in the assessment of student learning process written tests.

5.2.Learning activities

The program that the student is offered to help you achieve the expected results includes the following activities

... 1. Materials used in mechanical engineering and its application in various industrial sectors. 2. Selection of materials for various applications in mechanical engineering. 3. Technical inspection monitoring damage during service, as well as the basics of failure, and necessary to identify the failure mechanism and determine its root cause tools . 4. The latest trends in materials for use in mechanical engineering , forming processes , mainly manufacturing and mechanical properties.

5.3.Program

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5.4.Planning and scheduling

Schedule sessions and presentation of works The schedule of the course , both of the sessions in the classroom and laboratory sessions , will be determined by the academic calendar that the center established for the corresponding course. The schedule for submission of papers shall be announced at the beginning of the course.

5.5.Bibliography and recomended resources

No bibliographic records for this subject