Course guide
295907 - FABAD1 - Additive Manufacturing 1

Unit in charge: Barcelona East School of Engineering
Teaching unit: 712 - EM - Department of Mechanical Engineering.

Degree: BACHELOR'S DEGREE IN BIOMEDICAL ENGINEERING (Syllabus 2009). (Optional subject).
BACHELOR'S DEGREE IN CHEMICAL ENGINEERING (Syllabus 2009). (Optional subject).
BACHELOR'S DEGREE IN ELECTRICAL ENGINEERING (Syllabus 2009). (Optional subject).
BACHELOR'S DEGREE IN ENERGY ENGINEERING (Syllabus 2009). (Optional subject).
BACHELOR'S DEGREE IN INDUSTRIAL ELECTRONICS AND AUTOMATIC CONTROL ENGINEERING (Syllabus 2009). (Optional subject).
BACHELOR'S DEGREE IN MECHANICAL ENGINEERING (Syllabus 2009). (Optional subject).
BACHELOR'S DEGREE IN MATERIALS ENGINEERING (Syllabus 2010). (Optional subject).

Academic year: 2022  ECTS Credits: 3.0  Languages: Spanish

LECTURER
Coordinating lecturer: JOSE ANTONIO TRAVIESO RODRIGUEZ
Others: Primer quadrimestre:
JOSE ANTONIO TRAVIESO RODRIGUEZ - Grup: M10
ERIC VELÁZQUEZ CORRAL - Grup: M10

PRIOR SKILLS
Drawing 3D pieces, Graphical expression

TEACHING METHODOLOGY
There will be theory sessions and team work sessions based on a project

LEARNING OBJECTIVES OF THE SUBJECT
The subject pretends that the student:
1. Have the ability to select and design the manufacturing process for parts using additive manufacturing techniques.
2. Apply and integrate the connections to develop the project of the manufacture of a mechanical assembly, using CAD-CAM-CAE techniques and additive manufacturing.
3. Be able to control the quality of the manufactured parts.

STUDY LOAD

<table>
<thead>
<tr>
<th>Type</th>
<th>Hours</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self study</td>
<td>45,0</td>
<td>60.00</td>
</tr>
<tr>
<td>Hours large group</td>
<td>30,0</td>
<td>40.00</td>
</tr>
</tbody>
</table>

Total learning time: 75 h
## Generals issues about additive manufacturing techniques

**Description:**
content english

**Specific objectives:**
Acquire knowledge about the different techniques of additive manufacturing

**Full-or-part-time:** 3h
- **Theory classes:** 2h
- **Practical classes:** 1h

## Project development

**Description:**
content english

**Full-or-part-time:** 3h 20m
- **Theory classes:** 3h
- **Guided activities:** 0h 20m

## GRADING SYSTEM

The evaluation of the project will be based on the presentation of the report and a final presentation. Partial deliveries will be distributed throughout the semester.

This subject does not have re-evaluation test

## EXAMINATION RULES

\[ NF = 0.6 \times NP + 0.4 \times E \]

- **NF:** Final mark
- **NP:** Project Mark
- **E:** Partial deliveries