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: 2023  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
CONTENTS

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 NP + 0.4*E
NF- Final mark
NP- Project Mark
E- Partial deliveries