Course guides
295108 - 295II023 - Management of Technology

Unit in charge: Barcelona East School of Engineering
Teaching unit: 732 - OE - Department of Management.

Degree: MASTER'S DEGREE IN INTERDISCIPLINARY AND INNOVATIVE ENGINEERING (Syllabus 2019). (Compulsory subject).
MASTER'S DEGREE IN MATERIALS SCIENCE AND ADVANCED MATERIALS ENGINEERING (Syllabus 2019). (Compulsory subject).

Academic year: 2021 ECTS Credits: 6.0 Languages: English

LECTURER

Coordinating lecturer: Jordi Olivella Nadal

Others: Jordi Olivella Nadal Silvia Rodriguez Donaire Oriol Cuatrecases Arbós

DEGREE COMPETENCES TO WHICH THE SUBJECT CONTRIBUTES

Specific:
CEMCEAM-07. (ENG) Gestionar la Investigación, Desarrollo e Innovación Tecnológica, atendiendo a la transferencia de tecnología y los derechos de propiedad y de patentes

Generical:
CGMUEII-02. To manage, plan and supervise multidisciplinary teams according to technological creativity, business opportunity, social impact and sustainable development.
CGMUEII-03. Analyze the economic, social and environmental impact of technical solutions to base strategic decisions on criteria of objectivity, transparency and professional ethics.
CGMUEII-04. Transfer technological solutions in the form of products, services, processes or facilities in an efficient and sustainable manner, with an attitude of leadership and entrepreneurial spirit.

Transversal:
01 EIN. ENTREPRENEURSHIP AND INNOVATION: Knowing about and understanding how businesses are run and the sciences that govern their activity. Having the ability to understand labor laws and how planning, industrial and marketing strategies, quality and profits relate to each other.
02 SCS. SUSTAINABILITY AND SOCIAL COMMITMENT. Being aware of and understanding the complexity of social and economic phenomena that characterize the welfare society. Having the ability to relate welfare to globalization and sustainability. Being able to make a balanced use of techniques, technology, the economy and sustainability.
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

The teaching of the course is based on different methodologies (Master classes, seminars, workshops, projects) prioritizing active learning and "learning by doing" through exercises and team projects.
LEARNING OBJECTIVES OF THE SUBJECT

Upon completion of the course, the student should be able to:
- Inventorate and evaluate internal and external, consolidated and emerging technologies, and make a proposal for their management.
- Plan and manage RDI projects.

STUDY LOAD

<table>
<thead>
<tr>
<th>Type</th>
<th>Hours</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self study</td>
<td>96,0</td>
<td>64.00</td>
</tr>
<tr>
<td>Hours large group</td>
<td>34,0</td>
<td>22.67</td>
</tr>
<tr>
<td>Hours small group</td>
<td>20,0</td>
<td>13.33</td>
</tr>
</tbody>
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Total learning time: 150 h

CONTENTS

- **Technology evaluation**
  - **Description:** Level of development; Comparison of alternatives; Technology forecasting; Possible customers and uses
  - **Full-or-part-time:** 12h
  - Theory classes: 12h

- **Business models**
  - **Description:** Project Management concepts; Phase-gate methods; Standard project management; Agile methods
  - **Full-or-part-time:** 11h
  - Theory classes: 11h

- **Technology project management**
  - **Description:** Project Management concepts; Phase-gate methods; Standard project management; Agile methods
  - **Full-or-part-time:** 11h
  - Theory classes: 11h

GRADING SYSTEM

Class assignments of blocks 1, 2 and 3: 20% each
Course project: 40%
BIBLIOGRAPHY

Basic:

Complementary: