
Academic Year of Degree: 2025/26

24043 - Project Management and Innovation in Biomedical Engineering

Teaching Guide Information

Academic Course: 2025/26

Academic Center: 337 - Engineering School

Study: 3378 - Bachelor's degree in Biomedical Engineering

Subject: 24043 - Project Management and Innovation in Biomedical Engineering

Credits: 4.0

Course: 446 - Bachelor's degree in Biomedical Engineering: 4
743 - Minor in Entrepreneurship: 1

Teaching languages:

Theory: Group 1: English

Practice: Group 101: English

Group 102: English

Seminar: Group 101: English

Teachers: Aurelio Ruiz Garcia, Miguel Angel Gonzalez Ballester, Neus Bayó Puxan

Teaching Period: First term

Presentation

Innovation is at the core of the process of knowledge and technology transfer. Entrepreneurship and exploitation (commercial or otherwise) lead to value generation towards society. These processes are, however, challenging and sometimes complex. In this course we will try to shed some light on issues such as business planning, protection of intellectual property and project management, providing tools and examples.

Associated skills | General learning outcomes

CB3. That the students have the ability of collecting and interpreting relevant data (normally within their study area) to pass judgements which include a reflection about relevant topics of social, scientific or ethical nature;

CT4. Communicating in academic and professional contexts in English, both orally and in writing

CE6. Mastering the concepts of company, its constitutional and legal framework, organization and management.

Learning outcomes | Specific learning outcomes

RA.CE6.2 Identify aspects related to company organization and management.

RA.CE6.4 Identify the main elements which configure the entrepreneurial spirit and the creation of companies in the ICT field.

Contents

- Overview of different roles that biomedical engineers can play in the management of biomedical engineering projects, including their social and economic implications.

- Reflect on economic, ethical and political issues present in different business models and situations (ranging from research-intensive solutions to solutions for low-resource settings), as well as the broader ethical implications of the profession and its

future evolution.

- Intellectual property management.
- Regulation.
- Communication.
- General framework for project management
- Agile project management
- Leading high performance teams
- Business model canvas.
- Project planning: Gantt charts.
- Project budgeting and cost/time management.
- Risk management.
- Innovative business models.
- Seminars by internationally prominent invited guests

Sustainable Development Goals

- 9 - Industry, Innovation and Infrastructure
- 12 - Responsible Consumption and Production

Evaluation and grading system

Evaluation based on assignments, which will cover the theoretical and practical concepts introduced during the course.

In particular, the evaluation will consist of two projects, which cover the two parts of the course. For each of them, a document will be prepared and evaluated, as well as a presentation.