

Course guide

300117 - STCBUSS - Ai4ci Activities: from Research to Business

Last modified: 04/07/2026

Unit in charge: Castelldefels School of Telecommunications and Aerospace Engineering
Teaching unit: **Degree:** MASTER'S DEGREE IN ARTIFICIAL INTELLIGENCE FOR CONNECTED INDUSTRIES (AI4CI) (Syllabus 2025). (Optional subject).

Academic year: 2026 **ECTS Credits:** 3.0 **Languages:** English

LECTURER

Coordinating lecturer: Daniele Mioriandi (Affliant), Diego Taglioni (Affliant)

Others:

PRIOR SKILLS

None

TEACHING METHODOLOGY

Lectures and autonomous project

LEARNING OBJECTIVES OF THE SUBJECT

- To equip students with the knowledge and skills necessary to identify opportunities for innovation and entrepreneurship/intrapreneurship within their technical expertise.
- To provide students with an understanding of the process of transforming research findings into viable business ideas.
- To develop students' competencies in market analysis, product development, and business model creation.
- To cultivate entrepreneurial mindset and strategic thinking among students.
- To enable students to work effectively in interdisciplinary teams and communicate their ideas to various stakeholders.

STUDY LOAD

Type	Hours	Percentage
Self study	48,0	64.00
Hours large group	27,0	36.00

Total learning time: 75 h

CONTENTS

Module 1: Introduction to Innovation and Entrepreneurship

Description:

Overview of the innovation process.
Understanding the entrepreneurial mindset.
Case studies of successful tech innovations turned into businesses.

Full-or-part-time: 5h 24m

Theory classes: 5h 24m



Module 2: Opportunity Identification and Market Analysis

Description:

Techniques for identifying market opportunities.
Market research methods and tools.
Analyzing market trends and customer needs.

Full-or-part-time: 5h 24m

Theory classes: 5h 24m

Module 3: Product Development and Prototyping

Description:

Conceptualizing and defining product ideas.
Lean startup methodology.
Prototyping techniques and tools.
The strategic role of the distribution models

Full-or-part-time: 5h 24m

Theory classes: 5h 24m

Module 4: Business Model Innovation

Description:

Understanding different business models.
Value proposition design.
Business model canvas and validation techniques.
The importance of the regulatory bodies and compliance aspects

Full-or-part-time: 5h 24m

Theory classes: 5h 24m

Module 5: Intellectual Property Rights and Technology Transfer

Description:

Introduction to patents, copyrights, and trademarks.
Technology transfer process and licensing agreements.
Protecting intellectual property in a business context.

Full-or-part-time: 5h 24m

Theory classes: 5h 24m

Project Group Work

Description:

Students will work in diverse teams to develop a business plan for a tech-based innovation. The project will involve identifying a market opportunity, developing a product concept and designing a business model. Each group will present their business plan to the class and receive feedback from peers and instructors.

Full-or-part-time: 48h

Self study : 48h

GRADING SYSTEM

Any academic fraud, plagiarism or use or possession of unauthorised means in an assessment activity leads to a mark of zero (0) for the affected test or assignment. Furthermore, in accordance with the University's regulations, if disciplinary proceedings are initiated the subject is recorded as "Pending Assessment" until a decision is reached. These incidents are managed in accordance with the [Action Framework for Academic Integrity in Assessment at the UPC](#).

Continuous monitoring. A project assignment to perform after the STC execution will also be evaluated.