UNIVERSITAT POLITÈCNICA DE CATALUNYA
BARCELONATECH
Escola Tècnica Superior d'Enginyeria de Telecomunicació de Barcelona

telecos BCN

230732 – ENTREPRENEURSHIP AND INNOVATION FOR WORD CHALLENGES

Credits: 5 ECTS

LECTURER

Coordinating lecturer: Ramon Bragós

Others: Eva Vidal, Vicenç Fernández

PRIOR SKILLS

No prior skills are needed

DEGREE COMPETENCES TO WHICH THE SUBJECT CONTRIBUTES

Specific:

- Identify and evaluate innovative ideas and products in the area of electronic technology.

- Identify funding sources and prepare innovative business projects in the electronic field.

Transversal:

ENTREPRENEURSHIP AND INNOVATION. Know and understand the mechanisms on which scientific research is based, as well as the mechanisms and instruments for transferring results between the different socioeconomic agents involved in R&D&i processes.

TEACHING METHODOLOGY

Participative lectures

Seminars and conferences

Challenge-based learning

Discussion of cases and presentations

Workshops about methodology

LEARNING OBJECTIVES OF THE SUBJECT

- Being able to identify user needs and to propose and evaluate innovative solutions based on the use of technologies in the electronic area.
- Be able to properly use techniques of innovation, design, management, administration, financing, leadership and social and environmental responsibility in electronic and ICT projects.
- Being able to propose, design and implement ICT projects that contribute to achieving the sustainable development goals proposed by the United Nations.

STUDY LOAD

Hours large group: 39
Hours small group: 0
Hours self-study: 86

CONTENTS

- The purpose of engineering. UN Sustainable Development Goals.
- The innovation process: Design-Thinking, Lean Startup, Agile Development.
- Identification of opportunities and generation of innovative user-oriented ideas with potential social impact.
- Development of methodologies for the management of projects in the field of Electronic Engineering, including Intellectual property.
- Sources of financing for innovative private and public projects, including R&D&I research projects at national and European level.
- Development of a project, carried out by student teams, that includes the identification of a need, the generation of an innovative idea, the use of one or more of the Electronic Engineering technologies
- Development of the project business model, the solution ethical analysis and the economic, social and environmental sustainability analysis.

Full-or-part-time: 39h
Participative lectures: 15
Discussion of cases and presentations: 12
Workshops about methodology: 12
Autonomous work (individual and in teams): 86h

GRADING SYSTEM

50 % Process: Team activity during the course (presentations, assignments, participation, deliverables …)
50 % Result (final presentation, final report, video …)
+ 30 % individual modulation (peer assessment, supervisors' assessment)

The non-fulfilment of the tasks commissioned by the team can mean failing the subject regardless of the grade awarded to the team project

BIBLIOGRAPHY

A. Osterwalder. Y. Pigneur. Business Model Generation.John Wiley & Sons, 2010. ISBN: 978-0470-87641-1

E. Ries. The Lean Startup. Penguin Business, 2011. ISBN: 978-0670-92160-7