Informatics project management RandD

Academic Year: (2019 / 2020) **Review date: 09-05-2018**

Department assigned to the subject: Department of Computer Science and Engineering

Coordinating teacher: AMESCUA SECO, ANTONIO DE

Type: Compulsory ECTS Credits : 6.0

Year : 2 Semester : 1

COMPETENCES AND SKILLS THAT WILL BE ACQUIRED AND LEARNING RESULTS.

Competences.
The students will own the capability to:
- Understand the main processes of an organization for developing and managing research and innovative projects.
- Understand the requirements to manage research, development and innovation projects in companies.
- Analyze the different types of innovation.
- Design innovative ideas providing value to clients
- Prepare, manage and coordinate R&D&I projects.
- Plan, organize and supervise multidisciplinary teams.

Learning Outcomes
. Know the main processes of an organization for the development and management of research and innovation projects.
. Ability to analyze the different types of innovation.
. Ability to prepare, manage and coordinate research, development and innovation projects in companies.

DESCRIPTION OF CONTENTS: PROGRAMME

1. Fundamentals of R&D&I
1.1. Origin of ideas. History and Innovation.
1.2. Innovation Methods
1.3. Innovation and Entrepreneurship. The inventor, researcher, entrepreneur. Anthropological and psychological aspects.
1.4. Innovation Management & Process.
1.5. Requirements for a management system for R & D. Required capabilities and organizational structure of units of R + D + I

2. Innovative Ideas Development
2.1. Types of Innovation
2.2. Business Model Canvas
2.3. Value Proposition Design

3. R&D&I Product Management
3.1. Product Development Organization. Review of project management concepts: Traditional vs Agile. Specific aspects of innovation projects (UNE 166001)
3.2. Product Vision, Release Planning
3.3. Agile & Lean Product Development: Principles, Organization, Business Value Creation, Quality, Change, Risk

4. Design Thinking: Challenges
4.1 Case Study 1
4.2 Case Study 2

LEARNING ACTIVITIES AND METHODOLOGY

Learning activities:
AF1: Theoretical Class
AF2: Practical Classes
AF5: Tutorials

AF6: Group work
AF7: Individual student work

Methodology
MD1: Professor's Talks with the support of computer and audiovisual media, in which the main concepts of the subject are developed and the bibliography is provided to complement the students' learning.
MD2: Critical reading of texts recommended by the teacher of the subject: Press articles, reports, manuals and/or academic articles, either for further discussion in class or to expand and consolidate the knowledge of the subject.
MD3: Resolution of practical cases, problems, etc. ... raised by the teacher individually or in a group.
MD4: Talks and discussion in class, under the teacher's moderation of topics related to the content of the subject, as well as practical cases.
MD5: Preparation of papers and reports individually or in groups.

Tutorials:
There are 2 hours established and published in "Aula Global" every week .

ASSESSMENT SYSTEM

SE1: Class Participation
SE2: Work Assignments
SE3: Final Exam

The objective of the evaluation is to know the degree of fulfillment of the learning objectives, so all the work of the student, individually and collectively, will be assessed through the continuous evaluation of their activities through practical assignments (SE2).

The continuous evaluation consists of the development of several case studies. All case studies must be delivered submitted. Each practice will have a percentage of the final grade. To pass the course, it is required to reach a 5 as a minimum grade.

% end-of-term-examination:	1
% of continuous assessment (assigments, laboratory, practicals…):	99

BASIC BIBLIOGRAPHY

- Alexander Osterwalder, Yves Pigneur, Alan Smith, Greg Bernarda, and Patricia Papadakos VALUE PROPOSITION DESIGN, John Wiley & Sons, Inc., 2014
- Daniel Ling COMPLETE DESIGN THINKING GUIDE For Successful Professionals, Emerge Creatives Group, 2015
- Jurgen Appelo MANAGEMENT 3.0, Pearson Education, 2011
- Rubin, Kenneth S. Essential Scrum: a practical guide to the most popular agile process, Pearson Education, 2013
- Scott Berkun The Myths of Innovation, O'Reilly, 2010
- UNE UNE 166001:2006 Gestión de la I+D+i: Requisitos de un proyecto de I+D+i. , AENOR, 2006
- UNE UNE 166002:2006 Gestión de la I+D+i: Requisitos del Sistema de Gestión de la I+D+i, AENOR, 2006

ADDITIONAL BIBLIOGRAPHY

- Alexander Osterwalder & Yves Pigneur Business Model Generation: A Handbook for Visionaries, Game Changers, and Challengers, Wiley, 2010
- Andrew Stellman and Jennifer Greene Learning Agile, O¿Reilly Media, Inc., 2015
- Jeff Patton, et al. USER STORY MAPPING, O¿Reilly Media, Inc., 2014
- Morris, Langdon Agile innovation: the revolutionary approach to accelerate success, inspire engagement, and ignite creativity, John Wiley & Sons Inc., 2014
- Scott Berkun Making Things Happen: Mastering Project Management , O'Reilly, 2008