DEGREE CURRICULUM

IT PROJECT MANAGEMENT

Coordination: GARRIDO NAVARRO, JUAN ENRIQUE

Academic year 2020-21

IT PROJECT MANAGEMENT 2020-21

Subject's general information

<table>
<tr><td>Subject name</td><td>IT PROJECT MANAGEMENT</td></tr>
<tr><td>Code</td><td>103081</td></tr>
<tr><td>Semester</td><td>1st Q(SEMESTER) CONTINUED EVALUATION</td></tr>
<tr><td>Typology</td><td>
<table>
<tr><th>Degree</th><th>Course</th><th>Character</th><th>Modality</th></tr>
<tr><td>Master's Degree in Informatics Engineering</td><td>1</td><td>COMPULSORY</td><td>Attendance-based</td></tr>
</table>
</td></tr>
<tr><td>Course number of credits (ECTS)</td><td>7.5</td></tr>
<tr><td>Type of activity, credits, and groups</td><td>
<table>
<tr><th>Activity type</th><th>PRALAB</th><th>TEORIA</th></tr>
<tr><td>Number of credits</td><td>6</td><td>1.5</td></tr>
<tr><td>Number of groups</td><td>1</td><td>1</td></tr>
</table>
</td></tr>
<tr><td>Coordination</td><td>GARRIDO NAVARRO, JUAN ENRIQUE</td></tr>
<tr><td>Department</td><td>COMPUTER SCIENCE AND INDUSTRIAL ENGINEERING</td></tr>
<tr><td>Teaching load distribution between lectures and independent student work</td><td>7.5 ECTS correspond to 187 work hours (57 in-class, 130 out-of-class).</td></tr>
<tr><td>Important information on data processing</td><td>Consult this link for more information.</td></tr>
<tr><td>Language</td><td>English</td></tr>
<tr><td>Distribution of credits</td><td>Josep Ramon Freixanet: 1 1ECTS
Juan Enrique Garrido Navarro: 3 1ECTS
Esteve Nadal Roig: 3,5 1ECTS</td></tr>
</table>

IT PROJECT MANAGEMENT 2020-21

Teaching staff	E-mail addresses	Credits taught by teacher	Office and hour of attention
ALDAZ IBAÑEZ, NATALIA	natalia.aldaz@udl.cat	0	
FREIXANET CASAS, JOSEP RAMON	josepramon.freixanet@udl.cat	1	
GARRIDO NAVARRO, JUAN ENRIQUE	juanenrique.garrido@udl.cat	3	
NADAL ROIG, ESTEVE	esteve.nadal@udl.cat	3,5	

Subject's extra information

This course will provide the student with the principles and techniques of Project Management for IT projects. The basics of Financial Reporting and Profitability analysis will briefly be covered, with the major amount of time spent on ways to understand, analyse and use the data for decision making. To follow this subject properly some previous knowledge on Business Management is recommended.

Learning objectives

- Identify costs and profits in analyzing the economic performance of the products, processes, and systems.
- Calculate and apply some profitability indicators.
- Learn the basics of Project management.
- Develop a Project plan to manage, execute and monitor a Project.
- Know different models to develop software, specially the agile model.
- Carry out a software development Project following an agile methodology.

Competences

General Competences

- **CG1**. Capacity to project, calculate and design products, processes and installations in all fields of Computer Engineering.
- **CG2**. Capacity to manage computing systems works and installations, in compliance with current regulations, and assure quality service.
- **CG3**. Capacity to manage, plan and supervise multidisciplinary teams.
- **CG5**. Capacity to elaborate, strategically plan, manage, coordinate and technically and economically manage projects in all fields of computer engineering following quality and environmental criteria.
- **CG7**. Capacity to implement and manage computer equipment manufacturing processes, guaranteeing personal and material safety, the final quality of products and their homologation.
- **CG9.** Capacity to understand and apply ethical responsibility, legislation and professional ethics in computer engineering activities.
- **CG10**. Capacities to apply economic principles, manage human resources and projects, and comply with computer legislation, regulation and normalization.

Strategic Competences of UdL

- **UdL3.** Mastering ICT's.
- **UdL4.** To respect the fundamental rights of equality between men and women, the promotion of the Human Rights and the principles of a culture of peace and democratic values.

Cross-disciplinary Competences

- **EPS4**. Capacity to conceive, design and implement projects and/or contribute to new solutions, using engineering tools.
- **EPS5**. To be motivated for the quality and steady improvement.

Basic Competences

- **CB2.** That the students can apply their knowledge and their ability to solve problems in new or unfamiliar environments within broader (or multidisciplinary) contexts related to their field of study.

Specific competences

- **CE1**. Capacity for the integration of technologies, applications and computer engineering systems, in general and in wider and multidisciplinary contexts.
- **CE2**. Capacity for the strategic planning, preparation, direction, coordination, and technical and economic management in the fields of the computer engineering in: systems, applications, services, networks, infrastructures or computer installations and centres or factories of software development, complying with the suitable fulfilment of the quality criteria and multidisciplinary working environments.
- **CE3**. Capacity for the direction of research, development and innovation projects, in companies and technological centres, with guarantee of security for people and resources, the final quality of the products and his certification.
- **CE6**. Capacity to ensure, manage, audit and certify the quality of the developments, processes, systems, services, applications and computer products.
- **CE8**. Capacity to analyse the information needs that arise and to carry out all the stages of the process of construction of an information system.

Subject contents

PART 1.

Lesson 1. Idea Generation

Lesson 2. Economic viability. Main KPI's

PART 2.

Lesson 3. Models and methodologies

Lesson 4. SCRUM methodology

PART 3.

Lesson 5. Real software project development together with the PTIC subject. At this point we will manage this project by using SCRUM

Methodology

Teaching methodology is based on project-based learning.From a proposed technological business idea, theoretical topics of the subject are developed. This project is performed in coordination with an other subject of the master:ICT Project: Development and Implementation. During the semester will combine theoretical and practical sessions that pretend to do a follow-up.

IT PROJECT MANAGEMENT 2020-21

Development plan

Course Schedule. Course 20/21 ICT Project: Development and Implementation and IT Project Management

Week	Content
1	"Team Building Week"
2	Presentation + Idea Development
3	Workshop Preparation + Workshop "Projects Presentation"
4	Workshop "Projects Presentation" + Making Groups + ITPM
5	PTIC + Sprint Planning + ITPM
6	PTIC + Sprint Preparation + ITPM
7	PTIC + Sprint Review + Retrospective
8	PTIC + Sprint Preparation + ITPM
9	PTIC + ITPM
10	PTIC + Sprint Review + Retrospective
11	Mentoring + Sprint Preparation + PTIC + ITPM
12	Sprint Planning + PTIC + ITPM
13	PTIC + ITPM + Sprint Review + Restrospective
14	Mentoring + Final Project
15	Final Presentation

Evaluation

Group Qualification Result: 60% of final mark.

Evaluation Point	Percentage	Description
Sprint 1	12,5%	- Project Management Evaluation. - “Sprint Planning” and “Sprint Review” evaluation. - Implemented code and features general evaluation.
Sprint 2	12,5%	- Project Management Evaluation. - “Sprint Planning” and “Sprint Review” evaluation. - Implemented code and features general evaluation.
Sprint 3	12,5%	- Project Management Evaluation. - “Sprint Planning” and “Sprint Review” evaluation. - Implemented code and features general evaluation.
Final Presentation	22,5%	- Evaluation of student’s oral and presentation skills. - Commercial presentation of the project. - Presentation quality in terms of coherence and content.

Individual Result: 40% of final mark.

Evaluation Point	Percentage	Description
Workshop	10%	- Workshop attendance; - Participation in the workshop by elaborating ideas.

Peer Review	10%	- Evaluation of the peer review. - Evaluation of problems found/corrected. - Evaluation of conflicts found/correct.
Implication/Participation in the project.	10%	Active participation in the project. (measured by commits and resolved tasks).
Technical Evaluation	10%	Evaluation of the project management, cost assessment and product development concepts that should be learned during the project.

Bibliography

- John White, Kellie Grasman, Kenneth Case, Kim LaScola Needy and David Pratt. (2014). **Fundamentals of Engineering Economic Analysis**. Wiley.
- Project Management Institute. **A Guide to the Project Management Body of Knowledge 5a Edición.** PMI, 2013. ISBN: 978-1-62825-009-1
- Henrik Kniberg. **Scrum y XP desde las trincheras**. C4Media, editor de InfoQ.com, 2007. (Traducción al español). ISBN: 978-1-4303-2264-1
- Henrik Kniberg and Mattias Skarin. **Kanban y Scrum. Obteniendo lo mejor de ambos**. C4Media, editor de InfoQ.com, 2010. (Traducción al español). ISBN: 978-0-557-13832-6
- https://scrumguides.org/scrum-guide.html
- https://www.scrumalliance.org