



COURSE 14

PROJECT MANAGEMENT & STRATEGY

Study load: 3 credits

Total studytime: 75 hours

EU-Partner(s):

TC-Partner(s): MUN

PREREQUISITES

- None

STUDY MATERIALS

- Project Management Institute (2021). "PMBOK Guide: A guide to the project management body of knowledge (7th edition)", Project Management Institute.
- Project Management Institute & Agile Alliance (2017). "Agile Practice Guide", Project Management Institute.Course

TECHNICAL REQUIREMENTS / LAB EQUIPMENT

- Microsoft software

LEARNING OUTCOMES

Students will learn the basics of project-based work and analysis techniques. During the theory lessons, we'll cover the different phases of a project and the characteristics of an Agile or Waterfall approach. We'll also examine various diagrams and their usefulness during a project.

The models discussed in the theory lessons and practiced in the lab sessions, such as Activity and Use Case diagrams, are used by students in the technical documents they create for project courses, including the Multidisciplinary Project.

This course intends to prepare students for the relevant aspects associated with managing projects. Besides some introductory aspects about the traditional perspective on project management, the main focus will be on agile methodologies. By the end of the course students should be able to:

In this course, we learn how to apply various methods to managing IT projects. We cover planning, teamwork, and effective communication between stakeholders. The focus is on the various phases of a project, scrum and waterfall project management, change management, and project communication techniques such as presenting, formal writing, and interviewing.

- Analyze existing applications and their functionalities.
- Collect, formalizes, and validates functional requirements.
- Create a use case diagram with scenarios based on requirements.
- Create a data flow diagram.
- Describe model maturity levels and evaluates which ones are needed.
- Identify the exchange of data within a business process.
- Know and recognize the syntax of UML models (use case diagram and activity diagram).
- Create an activity diagram.
- Describe various methodologies for implementing change within an organization.
- Describe different types of testing (functional, integration, performance, usability, stress, etc.) and can distinguish between types and levels.
- Use professional language flexibly and effectively, both written and verbal.
- Apply basic project communication principles to create a presentation, taking into account the target audience.
- Apply basic principles for conducting interviews, taking into account the client's level and the necessary functional and technical requirements.

- Create development strategies to deal with conflicts within the context of a project.
- Distinguishe between the different phases of a project and their characteristics, depending on the project methodology used.
- Describe the basic principles of development methodologies (Waterfall, Scrum, etc.).
- Describe the advantages and disadvantages of various estimation techniques, depending on the project methodology used.
- Understand the concept of project management and its relationship to the company strategic choices
- Understand the characteristics of a project manager
- Identify the different aspects associated with the traditional project management perspective
- Manage a project according to the traditional perspective on project management
- Understand the differences between the traditional perspective and agile methodologies
- Manage a project according to scrum
- Manage a project according to Kanban
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ACTIVITIES

- Theory & exercices

CONTENT

1. Introduction to Project Management

- Concepts:
 - Project
 - Management
 - Project Management
 - Economy
- Characteristics of a project manager

2. Traditional Project Management (PMBOK)

- Project management phases
- Initiation of a project
- Planning a project
- Implementation of a project
- Monitoring and controlling a project
- Conclusion of a project

3. Agile Methodologies

- Agile Manifesto
- Scrum
- Kanban
- ...

EVALUATION

First exam chance

FORM	%	REMARK
Exam	40.00	
Case study	60.00	Implementation in module “Multidisciplinary Project”

Second exam chance (re-sit exam)

FORM	%	REMARK
Exam	40.00	
Case study	60.00	Implementation in module “Multidisciplinary Project”