Course Definition Document

Course

Software Project Management - ISE_PM - **Dr. Iyad Zoukar**

Weight

4 credit hours

Level

Summary

In this course, we discuss the subject of software project management in the organizations working in software and information technology industry. The main goal is to introduce the basic concepts of project management, the most important methods and tools, and to link them directly with real examples in software domain.

Learning Outputs

They contain the skills and experience appropriate to the market and which the student will acquire by successfully passing this course.

There are four major learning outcomes covered by activities such as activities, synchronized sessions, and the exam:

LO1	Definition of a new project and feasibility study
LO2	Planning, scheduling, and budgeting a new project

LO3   Develop indicators to monitor and control the project

LO4   Evaluate the success of the project

Contents

The contents of the scientific material that constitute the theoretical basis of the material.

Chapter	Description
1. Introduction to project management	- Project definition - Factors of success and failure of projects - Definition of project management - History of the development of project management science - Project management profession
2. Project Life Cycle Project	- Definition Phase - Project Planning Stage - Monitoring and follow-up phase of the project - Project Termination Phase - Project management systems
3. Definition of project	- Definition of project scope - Project Priorities - The fractional structure of WBS work - Project Information System
4. Time planning in	- Planning

project	- Work Breakdown Structure (WBS) - Milestones - Activities - Relations between activities - Time estimation - Resource estimation - Project network - Critical path method - Gantt Chart - Schedule compression
5. Resource Planning in Project	- Resource estimation - Resource graph - Resource levelling - Resource levelling with time constraints - Resource levelling with resource constraints
6. Cost management	- Resource planning - Cost estimate - Budgeting - Cost control
7. Project Monitoring and controlling	- Monitoring in projects - Control in projects - Earned value analysis - Schedule variances and indicators

	- Cost variances and indicators	
8. Project organizational structure	- Functional organizational structure - Projectized organizational structure - Matrix organizational structure	
9. Project risk management	- Concept of risk - Risk identification - Risk assessment - Risk response plan - Risk control	
10. Project Human Resource Management	- Stakeholders management - Team formation - Communication management - Conflict management and resolution - Negotiation - Performance assessment and motivation	

Evaluation criteria and outcome coverage:

Help define the activities the student will undertake to cover the outcomes. Noting that the evaluation criteria must be covered by the student as a condition for covering the outcomes and thus for success.

Learning Outcomes	Evaluation Criteria *To achieve the outcomes the student must show the capability in:*	Assignment	Online Sessions	Exam

LO1	Define new project	X	X	X
	Feasibility studies	X	X	X
	Select a project	X	X	X
LO2	Create a work breakdown structure	X	X	X
	Develop project schedule	X	X	X
	Develop project budget	X	X	X
	Critical path method	X	X	X
LO3	Earned value analysis	X	X	X
	Calculate schedule variances and performance indicators	X	X	X
	Calculate cost variances and performance indicators	X	X	X
	Calculate project performance indicators and predictions	X	X	X
LO4	Evaluate the project success	X	X	X
	Project documentation	X	X	X
	Project knowledge management	X	X	X

Generating the evidence

A brief explanation of the nature of the students' reports, exercises and examinations, which will determine the extent of their coverage of the outcomes.

The student will present a mini-project that will cover all the concepts to be addressed in the course. He will use Microsoft Project to develop project plans.

Links

We determine the relationship of the course to other courses in the program.

In this course, we can use the knowledge of the other courses in the program, but there are no perquisite that must be passed before that the student can be enrolled in this course.

Resources

We identify the various resources that students can use to provide evidences such as library, software, internet sites and others.

The student can refer to any reference or book in project management.

Many e-books will be placed on the course page in LMS.

The student will learn to use Microsoft Project

Virtual meetings:

Here we explain the purpose of the virtual meeting and the way of management by the professor.

Simultaneous virtual meetings are very important given the interactive nature of the course and to benefit from the experiences of the students exchange, especially since the subject is very practical. The examples presented in the sessions are very useful and there is a need for students to participate through their examples that they could have dealt with in their previous work.

Reading Proposals:

A list of books in which students can expand their knowledge in the course.

Project Management: The Managerial Process - Clifford F. Gray - Erik W. Larson - McGraw - HILL Seventh Edition 2017

Project Management Body of Knowledge - Sixth Edition 2017 - Project Management Institute

Software Project Management, 5th Edition 2018, Bob Hughes Mcgraw Hill.

Any book in project management and software project management

The course page will have a set of e-books on LMS.