OSTIM TECHNICAL UNIVERSITY
FACULTY OF ECONOMICS AND ADMINISTRATIVE SCIENCES
MANAGEMENT INFORMATION SYSTEMS DEPARTMENT
COURSE SYLLABUS FORM

MIS 451 Software Process Management							
Course Name	**Course Code**	**Period**	**Hours**	**Application**	**Laboratory**	**Credit**	**ECTS**
Software Process Management	MIS 451	1	3	0	0	3	6

Language of Instruction	English
Course Status	Elective
Course Level	Bachelor
Learning and Teaching Techniques of the Course	Lecture, Question-Answer, Problem Solving

Course Objective

The goals of the course are as follows: • To learn the importance of software process maturity & understand related concepts. • Understanding the specific roles within a software organization as related to project and process management • Understanding the basic infrastructure competences (e.g., process modeling andmeasurement) • Understanding the basic steps of project planning, project management, quality assurance, and process management and their relationships

Learning Outcomes

At the end of the course, the student shall be able to:

1. Apply suitable capability Maturity model for specific scenarios & determine the effectiveness.
2. Describe and determine the purpose and importance of project process management from the perspectives of planning, tracking and completion of project.
3. Compare and differentiate organization structures and project process structures.
4. Implement a project to manage project schedule, expenses and resource with the application of suitable project process management tools

Course Outline
This course will begin with introduction to understand software process maturity. This two-week aim to understand software maturity framework, principles of software Process change, software process assessment, the initial process, the repeatable process, the defined process, the managed process, the optimizing process and process reference. Then, the course will skip to the real part and the project process implementation activities, conventional software management, transition to agile, the old way and the new way. Life-cycle phases and process artifacts engineering and production stages, inception phase, elaboration phase, construction phase, transition phase, artifact sets, management artifacts, engineering artifacts and pragmatic artifacts, model based software architectures. Then, students will learn workflows and checkpoints of process. The week of eight is for the midterm exam. By the ninth week, process based project organizations, process management tools will be taught . At the end of the term, all students will present their skills with a presentation.

Weekly Topics and Related Preparation Studies

Weeks	Topics	Preparation Studies
1-2	Introduction, Software Process Maturity	Software maturity Framework, Principles of Software Process Change, Software Process Assessment, The Initial Process, The Repeatable Process, The Defined Process, The Managed Process, The Optimizing Process. Process Reference
3-4-5	Software Project Management Processes	Conventional Software Management, The old way and the new way. Life-Cycle Phases and Process artifacts Engineering and Production stages, inception phase, elaboration phase, construction phase, transition phase, artifact sets, management artifacts, engineering artifacts and pragmatic artifacts, model based software architectures.
6-7	Workflows and Checkpoints of process	Software process workflows, Iteration workflows, Major milestones, Minor milestones, Periodic status assessments.
8	**MIDTERM EXAM**	
9-10	Project Organizations	Line-of- business organizations, project organizations, evolution of organizations, process automation
11-12	Process Management Tools	Example Tools
13-14	Software Process Implementation Guides	-
14- -15	Presentations	
	FINAL EXAM	

Textbook(s)/References/Materials:
Textbook: 1-Managing the Software Process, Watts S. Humphrey, Pearson Education 2-Software Project Management, Walker Royce, Pearson Education
Supplementary References: 1. Effective Project Management: Traditional, Agile, Extreme, Robert Wysocki, Sixth edition, Wiley India, rp2011. 2. An Introduction to the Team Software Process, Watts S. Humphrey, Pearson Education, 2000 3. Process Improvement essentials, James R. Persse, O'Reilly, 2006 4. Software Project Management, Bob Hughes & Mike Cotterell, fourth edition, TMH, 2006 5. Applied Software Project Management, Andrew Stellman & Jennifer Greene, O'Reilly, 2006.

Assessment		
Studies	**Number**	**Contribution margin (%)**
Attendance		
Lab		
Class participation and performance	**1**	**10**
Field Study		
Course-Specific Internship (if any)		
Quizzes / Studio / Critical		
Homework		
Presentation		
Projects	**1**	**10**
Report		
Seminar		
Midterm Exam/Midterm Jury	**1**	**30**
General Exam / Final Jury	**1**	**50**
Total		**100**
Success Grade Contribution of Semester Studies		**50**
Success Grade Contribution of End of Term		**50**
Total		**100**

ECTS / Workload Table			
Activities	**Number**	**Duration (Hours)**	**Total Workload**
Course hours (Including the exam week): 16 x total course hours)	16	3	48
Laboratory			
Application			
Course-Specific Internship (if any)			
Field Study			
Study Time Out of Class	16	3	48
Presentation / Seminar Preparation		6	6
Projects			
Reports			
Homework			
Quizzes / Studio Review	0	0	0
Preparation Time for Midterm Exams / Midterm Jury	2	20	40
Preparation Period for the Final Exam / General Jury	1	40	40
Total Workload	**(182/30 = 6,07)**		**182**

Course' Contribution Level to Learning Outcomes						
Nu	**Learning Outcomes**	**Contribution Level**				
		1	**2**	**3**	**4**	**5**
LO1	Apply suitable capability Maturity model for specific scenarios & determine the effectiveness.					X
LO2	Describe and determine the purpose and importance of project process management from the perspectives of planning, tracking and completion of project.					X
LO3	Compare and differentiate organization structures and project process structures.					X
LO4	Implement a project to manage project schedule, expenses and resource with the application of suitable project process management tools					X

	Relationship Between Course Learning Outcomes and Program Competencies (Department of Management Information Systems)								
Nu	**Program Competencies**	**Learning Outcomes**							**Total Effect (1-5)**
		LO1	**LO2**	**LO3**	**LO4**	**….**	**….**	…	
1	Recognize and distinguish the basic concepts such as data, information, and knowledge in the field of Management Information Systems and know the processes to be followed for data acquisition, storage, updating, and security.	x	x	x	x				5
2	Develop and manage databases suitable for collecting, storing, and updating data.								
3	As a result of his/her ability to think algorithmically, easily find solutions to the problems concerning the basic business functions.								
4	Learn programming logic, have information about current programming languages.								
5	Learn programming logic, have information about current programming languages.								
6	Be able to take part in teamwork or lead a team using knowledge of project management processes.	x	x	x	x	x	x		5
7	Know ethical and legal rules, use professional field knowledge within the scope of ethical and legal rules.	x	x	x	x	x	x		4
8	Have knowledge in the fundamental areas of business administration namely management and organization, production, finance, marketing, numerical methods, accounting, etc., and have the knowledge and skills to work in-depth in at least one of them.	x	x	x	x	x	x		5
9	Be able to solve the problems encountered in the field of internet programming by designing web applications.	x	x	x	x	x	x		5

10	Develop and manage logistics and supply chain management activities			x	x				2
11	Adapt his/her theoretical knowledge and the experience he/she will gain through practice at the departments of businesses such as information technologies, R&D, and management to real life.	x	x	x	x	x	x		5
12	Be able to develop strategies that will provide a competitive advantage with his/her advanced knowledge of management strategies and management functions.	x	x	x	x	x	x		5
13	Develop a business idea, commercialize the business idea, and design and manage his/her own venture using entrepreneurial knowledge.	x	x	x	x	x	x		5
14	By using English effectively, they can follow, read, write, speak and communicate universal information in the field of management information systems in a foreign language with professional competence.	x	x	x	x	x	x		5
Total Effect									46

Policies and Procedures
Web page: https://www.ostimteknik.edu.tr/management-information-systems-english-1241/915
Exams: The written exams will be multiple-choice and true/false questions.
Missed exams: Any student missing an exam needs to bring an official medical report to be able to take a make-up exam. The medical report must be from a state hospital.
Projects: All students will present a term project presentation and submit a project report. Project teams can be established.
Attendance: Attendance requirements are announced at the beginning of the term. Students are usually expected to attend at least 70% of the classes during each term.
Objections: If the student observes a material error in his/her grade, he/she has the right to place an objection to the Faculty or the Department. The claim is examined and the student is notified about its outcome.