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

MIS 336 Software Development Process							
Course Name	**Course Code**	**Period**	**Hours**	**Application**	**Laboratory**	**Credit**	**ECTS**
Software Development Process	MIS 336	1	3	0	0	3	5

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

Course Objective

At the end of this course, the student will:

- Know software development process models
- Know basic terminology of software engineering
- Understand modelling notations
- Know requirements engineering phases and fundamentals
- Know fundamentals of software project management techniques

Learning Outcomes

The students who succeeded in this course will be able to:

- Describe and compare software development process models
- Choose a software process model based on project and team attributes
- Define basic terminology of software engineering
- Draw and interpret system models using software modelling notations
- Define requirements engineering phases
- Describe fundamental techniques for requirement phase
- Apply estimation techniques in project management
- Define planning activities in project management

Course Outline
The course introduces the fundamentals of software management and software system models with an emphasis on software development process models, project management techniques and contemporary modeling notations.

Weekly Topics and Related Preparation Studies		
Weeks	**Topics**	**Preparation Studies**
1	Introduction to essence of software and software engineering	–
2	Software development process models	–
3	Software requirements and specification	–
4	Requirements elicitation and analysis	–
5	Requirements analysis and modelling	–
6	Object-oriented techniques	–
7	Object-oriented techniques	–
8	**MIDTERM EXAM**	
9	Software design	
10	Formal specification	–
11	Formal specification	–
12	Project management	–
13	Project management	–
14	Software testing	–
15	**FINAL EXAM**	
Textbook(s)/References/Materials:		

Textbook: Fowler, M. (2004). UML distilled: a brief guide to the standard object modeling language. Addison-Wesley Professional.
Supplementary References:
Other Materials:

Assessment		
Studies	**Number**	**Contribution margin (%)**
Attendance	1	10
Lab		
Class participation and performance	1	10
Field Study		
Course-Specific Internship (if any)		
Quizzes / Studio / Critical		
Homework		
Presentation		
Projects		
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	5	2	10
Application	5	1	5
Course-Specific Internship (if any)			
Field Study			
Study Time Out of Class	16	2	32
Presentation / Seminar Preparation			
Projects			
Reports			
Homework	5	1	5
Quizzes / Studio Review	**10**	**2**	**20**
Preparation Time for Midterm Exams / Midterm Jury	**1**	**10**	**10**
Preparation Period for the Final Exam / General Jury	**1**	**20**	**20**
Total Workload	**(150/30 = 5)**		**150**

Course' Contribution Level to Learning Outcomes						
Nu	**Learning Outcomes**	**Contribution Level**				
		1	**2**	**3**	**4**	**5**
LO1	Describe and compare software development process models					X
LO2	Choose a software process model based on project and team attributes					X
LO3	Define basic terminology of software engineering					X
LO4	Draw and interpret system models using software modelling notations					X
LO5	Define requirements engineering phases					X
LO6	Describe fundamental techniques for requirement phase					X
LO7	Apply estimation techniques in project management					X
LO8	Define planning activities in project management					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**	**LO5**	**LO6**	**LO7**	**LO8**	
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	x	x	x	x	**5**
2	Develop and manage databases suitable for collecting, storing, and updating data.	x	x	x	x	x	x	x	x	**5**
3	As a result of his/her ability to think algorithmically, and easily find solutions to problems concerning basic business functions.	x	x	x	x	x	x	x	x	**5**
4	Learn programming logic, and have information about current programming languages.	x	x	x	x	x	x	x	x	**5**
5	Be able to use up-to-date programming languages.	x	x	x	x	x	x	x	x	**5**
6	Be able to take part in teamwork or lead a team using knowledge of project management processes.									
7	Know ethical and legal rules, and use professional field knowledge within the scope of ethical and legal rules.									
8	Know 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.									
9	Be able to solve the problems encountered in the field of internet programming by designing web applications.	x	x	x	x	x	x	x	x	**5**
10	Develop and manage logistics and supply chain management activities									
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.									
12	Be able to develop strategies that will provide a competitive advantage with									

	his/her advanced knowledge of management strategies and management functions.									
13	Develop a business idea, commercialize the business idea, and design and manage his/her venture using entrepreneurial knowledge.									
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.									
Total Effect										**30**

Policies and Procedures
Web page: https://www.ostimteknik.edu.tr/management-information-systems-english-1241/915
Exams: The exams aim at assessing various dimensions of learning: knowledge of concepts and theories and the ability to apply this knowledge to real-world phenomena, through analyzing the situation, distinguishing problems, and suggesting solutions. The written exams can be of two types, ie. open-ended questions, which can also be in the form of problems or multiple-choice questions.
Assignments: Homework (Assignments) might be applicable. Scientific Research Ethics Rules are very important while preparing assignments. The students should be careful about citing any material used from outside sources and reference them appropriately.
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: Not applicable.
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.