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

MIS 214 Information Security							
Course Name	**Course Code**	**Period**	**Hours**	**Application**	**Laboratory**	**Credit**	**ECTS**
Software Quality Management	MIS 433	1	3	0	0	3	6

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

Course Objective

This course is designed to introduce basic concepts and models on software quality management and teach students how to measure software quality and how to use measurements to improve the software development process.

Learning Outcomes

The students who succeeded in this course will be able;

1. become familiar to basic concepts of Software Quality Management
2. become familiar with the planning of the Software Quality Management processes
3. understand the Process Implementation Activities
4. understand software quality factors and challenges
5. analyze SQM processes
6. evaluate the quality of a software product and process

Course Outline
This course will begin with introduction to software quality and software quality factors and challenges at an introductory level. This three-week part aims to understand whether the students are ready to take SQM (Software Quality Management) to expand their knowledge. Then, the course will skip to the real part and the SQA process implementation activities, cost of software quality, product quality assurance activities for conformance will be introduced to make a basis for SQ management. The week of eight is for the midterm exam. By the ninth week, product quality metrics, process quality assurance activities, applying the seven basic quality tools in software development and measuring and analyzing customer satisfaction will be taught .

Weekly Topics and Related Preparation Studies		
Weeks	**Topics**	**Preparation Studies**
1	Introduction	
2	Introduction to Software Quality	– Galin Chapter 1
3	The Software Quality Factors and Challenges	– Galin Chapter 2-3
4	SQA Process Implementation Activities	– Galin Chapter 4-8
5	Cost of Software Quality	– Galin Chapter 9-11
6	Defect removal effectiveness	– Kan Chapter 6
7	Product Assurance Activities for Conformance	– Galin Chapter 12-15
8	**MIDTERM EXAM**	
9	Product Quality Metrics	– Galin Chapter 16-17
10	Process Assurance Activities: Corrective and Preventive Actions	– Galin Chapter 18-20
11	Software Process Quality Metrics	– Galin Chapter 21-23
12	Applying the Seven Basic Quality Tools in Software Development	– Galin Chapter 24
13	Measuring and Analyzing Customer Satisfaction	– Kan Chapter 14
14	Term Project Presentations	
15	Review, Preparation for the Final Exam	
	FINAL EXAM	

Textbook(s)/References/Materials:
Textbook: Galin, D. (2018). Software quality: concepts and practice. John Wiley & Sons.
Supplementary References: Kan, S. H. (2002). Metrics and models in software quality engineering. Addison-Wesley Longman Publishing Co., Inc.

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	Become familiar to basic concepts of Software Quality Management					X
LO2	Become familiar with the planning of the Software Quality Management processes					X
LO3	understand the software process implementation activities					X
LO4	Understand software quality factors and challenges					X
LO5	Analyze software quality management processes					X
LO6	Evaluate the quality of a software product and process					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**	…	
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		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: There is no web site yet.
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.