TOROS ÜNİVERSİTESİ

Faculty Of Engıneerıng
Computer And Software Engıneerıng

Course Information

SOFTWARE LABORATORY					
Code	**Semester**	**Theoretical**	**Practice**	**National Credit**	**ECTS Credit**
		Hour / Week			
CSE232	Spring	2	3	3	3

Prerequisites and co-requisites	None
Language of instruction	English
Type	Required
Level of Course	Bachelor's
Lecturer	Asst. Prof. Omid SHARIFI
Mode of Delivery	Face to Face
Suggested Subject	None
Professional practise (internship)	None
Objectives of the Course	To develop team working skills that are much needed in the software industry. Team work has been recognized as an important aspect of today's engineering education and is, as such, explicitly specified in the accreditation requirements for our program. To develop the communication skills of the students through presentations on theme topics. To obtain practical hands-on experience with a Model-Driven Development commercial tool for real-time object oriented systems, which generates code from high-level software models. This year we are using Rational Rose RealTime , which is a UML-based engineering tool, specifically optimized for developing complex event driven real-time software applications for various domains such as telecommunications, data communications, defense, aerospace and other industries.
Contents of the Course	This course introduces concepts and techniques relevant to the production of large software systems. Students are taught a programming method based on the recognition and description of useful abstractions. Topics include modularity, specification, data abstraction, object modeling, design patterns, and testing. Students complete several programming projects of varying size, working individually and in groups.

Learning Outcomes of Course

#	Learning Outcomes
1	At the end of the course, each student will have experienced all aspects of a software development project, including:
2	working with a client to define goals and priorities
3	designing a system
4	scheduling and planning a multi-person project
5	effective communications, running meetings
6	writing technical documentation, writing and testing code
7	deploying the system, public presentations

Course Syllabus

#	Subjects	Teaching Methods and Technics
1	Introduction	Lecture, discussion, presentation
2	Object semantics	Lecture, discussion, presentation
3	Subclassing	Lecture, discussion, presentation

4	Specifications	Lecture, discussion, presentation
5	Testing	Lecture, discussion, presentation
6	Object model notations	Lecture, discussion, presentation
7	Midterm	Exam
8	Abstraction functions	Lecture, discussion, presentation
9	Dependencies and decoupling	Lecture, discussion, presentation
10	Polymorphism: guest lecture by Gilad Bracha	Lecture, discussion, presentation
11	Subtypes and subclasses	Lecture, discussion, presentation
12	Classes and interfaces	Lecture, discussion, presentation
13	Usability, Design patterns, Managing a small software team	Lecture, discussion, presentation
14		
15		
16	Final Exam	Exam

Course Syllabus

#	Material / Resources	Information About Resources	Reference / Recommended Resources

Method of Assessment

#	Weight	Work Type	Work Title
1	40%	Mid-Term Exam	Mid-Term Exam
2	60%	Final Exam	Final Exam

Relationship between Learning Outcomes of Course and Program Outcomes

#	Learning Outcomes	Program Outcomes	Method of Assessment
1	At the end of the course, each student will have experienced all aspects of a software development project, including:	4,6,10	1,2
2	working with a client to define goals and priorities	4,6,10	1,2
3	designing a system	4,6,10	1,2
4	scheduling and planning a multi-person project	4,6,10	1,2
5	effective communications, running meetings	4,6,10	1,2
6	writing technical documentation, writing and testing code	4,6,10	1,2
7	deploying the system, public presentations	4,6,10	1,2

PS. The numbers, which are shown in the column Method of Assessment, presents the methods shown in the previous table, titled as Method of Assessment.

Work Load Details

#	Type of Work	Quantity	Time (Hour)	Work Load
1	Course Duration	14	5	70
2	Course Duration Except Class (Preliminary Study, Enhancement)	14	1	14
3	Presentation and Seminar Preparation	0	0	0
4	Web Research, Library and Archival Work	0	0	0
5	Document/Information Listing	0	0	0
6	Workshop	0	0	0
7	Preparation for Midterm Exam	1	2	2

8	Midterm Exam	1	1	1
9	Quiz	0	0	0
10	Homework	0	0	0
11	Midterm Project	0	0	0
12	Midterm Exercise	0	0	0
13	Final Project	0	0	0
14	Final Exercise	1	1	1
15	Preparation for Final Exam	1	1	1
16	Final Exam	1	1	1
				90