

Course Description					
Name	Code	Semester	T+A Hour	Credit	ECTS
INTRODUCTION to COMPUTER ENGINEERING	COE1110748	Fall Semester	2+2	3	4
Prerequisites Courses					
Recommended Elective Courses	Data Communications and Computer Networking				
Language of Instruction	English				
Course Level	First Cycle (Bachelor's Degree)				
Course Type	Required				
Course Coordinator	Prof.Dr. Mehmet Kemal ÖZDEMİR				
Name of Lecturer(s)	Prof.Dr. Selim AKYOKUŞ, Prof.Dr. Reda ALHAJJ, Prof.Dr. Mehmet Kemal ÖZDEMİR, Assist.Prof. Hüseyin Şerif SAVCI, Lect. Mustafa AKTAN				
Assistant(s)					
Aim	The aim of this course is to explain computer engineering and describe its main fields of study.				
Course Content	This course contains; Introduction to Engineering Profession and Career, Introduction to Engineering Design, Circuits, Signals and Systems, Probability and Statistics in Engineering, Exam Week, Probability and Statistics in Engineering, An introduction to Computer Science, Data Science, Introduction to Algorithms, Machine Learning and Artificial Intelligence, Software Engineering, UML, and State Machines.				
Course Learning Outcomes		Teaching Methods		Assessment Methods	
1. Define computer engineering		1, 10, 14, 2		A, C	
2. Explain different fields of computer engineering		1, 10, 14		A, C	
3. Summarize social, professional, and ethical issues		1, 14, 2, 3		A, C	
4. Translate innovation and entrepreneurship issues		1, 10, 14, 3		A, C	
5. Understand the steps required to design complex systems.		1, 13, 9		A, C, D	
Teaching Methods	1: Lecture, 10: Brainstorming, 13: Experiment / Laboratory, 14: Self-Study, 2: Question - Answer, 3: Discussion, 9: Simulation				
Assessment Methods	A: Written Exam, C: Homework, D: Project / Design				
Lecture Schedule					
Sequence	Topics	Preliminary Preparation			
1	Introduction to Engineering Profession and Career	Lecture Slides Week 1			
2	Introduction to Engineering Design	Lecture Slides Week 2			
3	Circuits	Lecture Slides Week 3			
4	Circuits	Lecture Slides Week 3			
5	Signals and Systems	Lecture Slides Week 5			
6	Signals and Systems	Lecture Slides Week 5			
7	Probability and Statistics in Engineering	Lecture Slides Week 7			
8	Exam Week	All lecture slides till Week 7			
9	Probability and Statistics in Engineering	Lecture Slides Week 9			
10	An introduction to Computer Science	Lecture Slides Week 10			
11	Data Science	Lecture Slides Week 11			
12	Introduction to Algorithms	Lecture Slides Week 12			
13	Machine Learning and Artificial Intelligence	Lecture Slides Week 13			
14	Software Engineering, UML, and State Machines	Lecture Slides Week 14			
Evaluation Methods		Weight(%)			
Midterm Exam		30			
General Exam		70			

Resources
Powerpoint slides1. Saeed Moaveni, "Engineering Fundamentals: An Introduction to Engineering" Cengage Learning, 5th edition.
2. http://ocw.mit.edu/courses/electrical-engineering-and-computer-science/6-01sc-introduction-to-electrical-engineering-and-computer-science-i-spring-2011/Syllabus/MIT6_01SCS11_notes.pdf