

<b>Faculty</b>	<b>Faculty of Engineering</b>		
<b>Program</b>	<b>B.Sc. in Civil Engineering</b>	<b>Elective</b>	
	<b>B.Sc. in Computer Engineering</b>	<b>Required</b>	
	<b>B.Sc. in Electrical-Electronics Engineering</b>	<b>Elective</b>	
	<b>B.Sc. in Industrial Engineering</b>	<b>Elective</b>	
	<b>B.Sc. in Mechanical Engineering</b>	<b>Elective</b>	

<b>Course Code</b>	COMP 204			
<b>Course Title in English</b>	Programming Studio			
<b>Course Title in Turkish</b>	Programlama Atölyesi			
<b>Language of Instruction</b>	English			
<b>Type of Course</b>	Flipped Classroom/Laboratory			
<b>Level of Course</b>	Undergraduate			
<b>Course Category (by % of Content)</b>	Basic Science	Basic Engineering	Engineering Design	General Education
	0	10	80	10
<b>Semester Offered</b>	Fall			
<b>Contact Hours per Week</b>	Lecture: 2	Recitation: -	Lab: 2	Other: -
<b>Estimated Student Workload</b>	156 hours per semester.			
<b>Number of Credits</b>	6 ECTS			
<b>Grading Mode</b>	Standard Letter Grade			
<b>Pre-requisites</b>	COMP 109			
<b>Expected Prior Knowledge</b>	Object Oriented Programming, Data Structures			
<b>Co-requisites</b>	None			
<b>Registration Restrictions</b>	Only Undergraduate Students			
<b>Overall Educational Objective</b>	To improve one's problem solving skills by means of computer programming projects.			
<b>Course Description</b>	<p>This course aims for students to improve their problem solving skills by means of computer programming. Given a problem, students are expected to produce a solution by using appropriate methods and tools to plan the project in which they analyze, design, implement and test the software they produce. The course activities will help students to improve their team work and presentation skills</p> <p>After forming teams, students will work on at least 3 different projects. Each team determines and applies appropriate methods and tools to successfully complete the project. After the completion of each project, they will submit a report, including all documentations they produce, and give a presentation in the class.</p>			
<b>Course Description in Turkish</b>	<p>Proje gruplarının oluşturulmasından sonra, en az 3 farklı proje üzerinde çalışılacak. Her grup, projeyi başarıyla bitirmelerini sağlayacak uygun yöntemleri ve araçları kendisi belirleyecektir. Proje sonunda, gruplar ürettikleri dokümanları içeren bir rapor teslim edecekler ve sınıfta sunum yapacaklardır.</p>			
<b>Course Learning Outcomes and Competences</b>	<p>Upon successful completion of the course, the learner is expected to be able to:</p> <ol style="list-style-type: none"> <li>1. plan a project, analyze and model the software to solve a given problem;</li> <li>2. design the software to meet requirements;</li> <li>3. implement the code using OOP and test it;</li> <li>4. communicate effectively with team members, write project reports and present one's work</li> </ol>			
<b>Relationship of the Course with the Student Outcomes</b>	Level	Learning	Assessed by	

<b>Program Outcomes</b>		N=None S=Supportive H=High	Outcome(s)	Exam, Project, HW, Experiment, Presentation, etc.
(a) an ability to apply knowledge of mathematics, science, and engineering		N		
(b) an ability to design and conduct experiments, as well as to analyze and interpret data				
(b)-1. an ability to design/develop an experiment by identifying required assumptions, constraints, data collection methods and models		N		
(b)-2. Implement experimental procedures to conduct an experiment and use engineering judgment to draw conclusions		N		
(c) an ability to design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability		H	2	Projects
(d) an ability to function on multidisciplinary teams				
(d)-1. Function effectively on a intradisciplinary team		S	1,4	Projects, Reports, Presentations
(d)-2. Function effectively on a multidisciplinary team		N		
(e) an ability to identify, formulate, and solve engineering problems		H	1,2,3	
(f) an understanding of professional and ethical responsibility		N		
(g) an ability to communicate effectively				
(g)-1. Communicate effectively with well-organized written documents		S	4	Reports Presentations
(g)-2. Communicate effectively verbally with a range of audiences		N	4	Reports, Presentations
(h) the broad education necessary to understand the impact of engineering solutions in a global, economic, environmental, and societal context		H	4	Reports, Presentations
(i) a recognition of the need for, and an ability to engage in life-long		N	2,3	Projects
(j) a knowledge of contemporary issues		N	2,3	Projects
(k) an ability to use the techniques, skills, and modern engineering tools necessary for engineering practice		H	2,3	Projects
<b>Prepared by and Date</b>	Prof. Dr. Muhittin Gökmen/ 1 July 2017			
<b>Semester</b>	Spring 2017-2018			
<b>Name of Instructor</b>	Prof.Dr. Muhittin Gökmen			
<b>Course Contents</b>	Week	Topic		
	1.	Introduction to the course, general principles		
	2.	Assignment of the first project and planning workshop		
	3.	Review of work products and workshop		
	4.	Review of work products and workshop		
	5.	Final report and Presentation of the first project		
	6.	Assignment of the second project and planning workshop		
	7.	Review of work products and workshop		
	8.	Review of work products and workshop		
	9.	Review of work products and workshop		
	10.	Final report and Presentation of the second project		

	11.	Assignment of the third project and planning workshop
	12.	Review of work products and workshop
	13.	Review of work products and workshop
	14.	Final report and Presentation of the third project
	15.	Final Examination Period.
	16.	Final Examination Period.
<b>Required/Recommended Readings</b>	Java: How to Program, Tenth edition, P.J. Deitel H.M.Deitel, 2014. Software Engineering : A Practitioner's Approach, Eight Edition, Roger S. Pressman, Bruce Maxim Mcgraw-Hill Education, 2014	
<b>Teaching Methods</b>	Lecturing in the class. Students work as teams on assigned projects	
<b>Homework and Projects</b>	3 Projects	
<b>Laboratory Work</b>	Programming in the computer lab	
<b>Computer Use</b>	For Programming with OOP	
<b>Other Activities</b>	Presentation and report for each project	
<b>Assessment Methods</b>	Students will be assessed based on the project, report and presentation.	
<b>Course Administration</b>	Instructor's office and phone number, office hours, email address: To be announced -Office: 5th Floor, #18 -Phone number: 0 212 395 36 26 - Email address: gokmenm@mef.edu.tr <b>Rules for attendance:</b> Minimum of 70% attendance required. <b>Missing a quiz:</b> Provided that proper documents of excuse are presented, each missed quiz by the student will be given a grade which is equal to the average of all of the other quizzes. No make-up will be given. <b>Missing a midterm:</b> Provided that proper documents of excuse are presented, each missed midterm by the student will be given the grade of the final exam. No make-up will be given. <b>Missing a final:</b> Faculty regulations. <b>A reminder of proper classroom behavior, code of student conduct:</b> YÖK Regulations <b>Statement on plagiarism:</b> YÖK Regulations <a href="http://3fcampus.mef.edu.tr/uploads/cms/webadmin.mef.edu.tr/4833_2.pdf">http://3fcampus.mef.edu.tr/uploads/cms/webadmin.mef.edu.tr/4833_2.pdf</a>	

ECTS Student Workload Estimation	Activity	No/Weeks	Hours			Calculation	Explanation
		No/Weeks per Semester (A)	Preparing for the Activity (B)	Spent in the Activity Itself (C)	Completing the Activity Requirements (D)		
	Lecture	4	1	1	1	12	A*(B+C+D)
	Lab etc.					0	
	Midterm(s)					0	A*(B+C+D)
	Assingment, Project, Presentation	6	8	8	8	144	A*(B+C+D)
	Final Examination					0	A*(B+C+D)
	Total Workload					156	
	Total Workload/25					6,24	
	ECTS					6	

### PROGRAM CRITERIA

1. Breadth in computer engineering practice, analysis and design with 18 required course, and depth in one or more fields with 4 electives.

2. Knowledge of mathematics, including differential and integral calculus, basic sciences, computer science, and engineering sciences that is necessary for analysis and design of complex electrical and electronic devices, software, and systems containing hardware and software components.

3. Knowledge of probability and statistics, including application to computer engineering; knowledge of advanced mathematics, including differential equations, linear algebra, complex variables, and discrete mathematics.

Note: For program-specific courses ABET Program Criteria of the related engineering program will be put here as before.

