



ECTS COURSE INFORMATION FORM

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

Course Code	COMP 110			
Course Title in English	Object Oriented Programming (Java)			
Course Title in Turkish	Nesne Yönelimli Programlama (Java)			
Language of Instruction	English			
Type of Course	Flipped Classroom/Lecture/Exercise			
Level of Course	Undergraduate			
Course Category (by % of Content)	Basic Science	Basic Engineering	Engineering Design	General Education
	10	50	30	10
Semester Offered	Fall			
Contact Hours per Week	Lecture: 3 hours	Recitation: -	Lab: 2 hours	Other:-
Estimated Student Workload	151 hours			
Number of Credits	6 ECTS			
Grading Mode	Standard Letter Grade			
Pre-requisites	COMP 109			
Expected Prior Knowledge	Basic programming knowledge			
Co-requisites	None			
Registration Restrictions	Only Undergraduate Students			
Overall Educational Objective	To learn fundamentals of object-oriented programming and how to design and implement object-oriented computer algorithms to solve basic engineering problems in Java programming language.			
Course Description	This course covers the fundamentals of object-oriented programming approach such as objects, classes, inheritance, polymorphism, dynamic binding, and application of these concepts using Java programming language.			
Course Description in Turkish	Nesne yönelimli programlama dersi nesne, sınıf, kalıtım gibi nesne yönelimli programlama kavramları ve bunların Java programlama dili kullanılarak uygulanmasını içermektedir.			
Course Learning Outcomes and Competences	Upon successful completion of the course, the learner is expected to: <ol style="list-style-type: none">1. implement object-oriented computer programs to solve engineering problems;2. design object-oriented algorithms to produce solutions;3. present the results of his/her programming solutions;4. recognize ethical and professional responsibilities in writing object-oriented programs;			

Relationship of the Course with the Student Outcomes	Level	Learning Outcome(s)	Assessed by
Student Outcomes	N=None S=Supportive H=High		Exam, Project, HW, Experiment, Presentation, etc.
(1) an ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics	H	1	Exams, Assignments
(2) an ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors	H	2	Exams, Assignments
(3) an ability to communicate effectively with a range of audiences	S	3	Assignments
(4) an ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts	S	4	Assignments
(5) an ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives			
(6) an ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions			
(7) an ability to acquire and apply new knowledge as needed, using appropriate learning strategies			
Prepared by and Date	Assist. Prof. Berk Gökberk / March 2020		
Semester	Spring 2019-2020		
Name of Instructor	Assist. Prof. Berk Gökberk		
Course Contents	Week	Topic	
	1.	Introduction to Object Oriented Programming Concepts	
	2.	Methods	
	3.	Arrays	
	4.	Reference Types	
	5.	Classes Part 1	
	6.	Classes Part 2	
	7.	Array Lists	
	8.	Object Oriented Design Part 1 (Class Design)	
	9.	Inheritance Part 1	
	10.	Inheritance Part 2	
	11.	Polymorphism Part 1	
	12.	Polymorphism Part 2	
	13.	Abstract Classes and Interfaces	
	14.	Object Oriented Design Part 2 (Advanced Class Design)	
	15.	Final Exam/Project/Presentation Period	
	16.	Final Exam/Project/Presentation Period	
Required/Recommended Readings	Introduction to Java Programming: Comprehensive Ed., D. Liang, Pearson		
Teaching Methods	Flipped classroom. Students work individually for assignments.		
Homework and Projects	Assignments		
Laboratory Work	Laboratory study		
Computer Use	Required		
Other Activities	-		

Assessment Methods	2 Midterm Exams (80% total), Assignments (20%)
Course Administration	Instructor's office: 5th floor, Room 540 Phone number: 0 212 395 37 45 Office hours: After the lecture hours. E-mail address: gokberkb@mef.edu.tr Rules for attendance: No attendance required. Statement on plagiarism: YÖK Regulations http://3fcampus.mef.edu.tr/uploads/cms/webadmin.mef.edu.tr/4833_2.pdf

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/Flipped Classroom	14	1	3		56	A*(B+C+D)
	Quizzes					0	
	Lab	14	1	2		42	
	Midterm(s)	2	8	2	0	20	A*(B+C+D)
	Assingments	3	1	10	0	33	A*(B+C+D)
	Final Examination					0	A*(B+C+D)
	Total Workload					151	
	Total Workload/25					6,04	