MARMARA UNIVERSITY - FACULTY OF ENGINEERING

2017-2018 Fall

CSE1141 – Computer Programming I

COURSE DESCRIPTION FORM

Offering Department	Department of Computer Engineering		Undergraduate must course (1st semester)
Course Code	CSE1141		
Course Name	Computer Programming I		
Language of Instruction	English		
ECTS	6		
Contact Hours	Theoretical (T): 3	Practice (U): 0	Laboratory(L): 2
Pre-requisites			
Instructor	**Name**	Sanem Arslan Yılmaz	
	E-mail	sanem.arslan@marmara.edu.tr	
Course Materials	**Mandatory**	Daniel J. Liang , Introduction to JAVA Programming Comprehensive Version 10th Edition, Pearson.	
	Recommended		
Course Objectives	The aim of this course is to teach the basic principles of computer programming and object oriented programming using Java programming language. This course aims to teach the basic principles of modern programming such as design, implementation, testing and debugging.		
Course Content	This course starts with an introduction to computer systems and teaches the design and implementation of computer programs using control structures, loops, methods and arrays in Java. Additionally, object-oriented programming concepts such as object, class, inheritance and polymorphism are explained.		

Learning Outcomes	**LO1**	Explain the basic concepts of programming, syntax and control structures.
	LO2	Design, implement and test moderate computer programs under specific requirements.
	LO3	Gain experience in Java programming language integrated development environments (IDEs).
	LO4	Design, implement and test computer programs using object oriented approaches.
	LO5	Analyze the execution of a given program in terms of compile time, runtime and logic errors.

Program Outcomes		**LO1**	**LO2**	**LO3**	**LO4**	**LO5**		
PO1	Adequate knowledge in mathematics, science (a) and engineering subjects (b) pertaining to the relevant discipline (1); ability to use theoretical and applied information in these areas to model and solve engineering problems (2).	1b	2		2	1b		
PO4	Ability to devise (a), select, and use (b) modern techniques and tools needed for engineering practice (1); ability to employ information technologies effectively (2).		2	2	2			
PO6	Ability to work efficiently in intra-disciplinary (a) and multi-disciplinary teams (b); ability to work individually (c).		c		c			

	No	**Week**	**Subjects**	**LO1**	**LO2**	**LO3**	**LO4**	**LO5**	**LO6**	**LO7**
Subjects (Knowledge, Skills and Behaviours), Contributions of Subjects to Learning Outcomes, Assessment Methods	**S1**	1-2	Introduction to Computers, Programs and Java							
	S2	3-4	Elementary Programming	Q, MF, H	H	H		MF		
	S3	5	Control Structures	Q, MF, H	Q, MF, H	Q, H		MF		
	S4	6	Mathematical Functions, Characters, and Strings	MF, H	MF, H	H		MF		
	S5	7	Loops	Q, MF, H	Q, MF, H	Q, H				
	S6	8	Methods	Q, MF, H	Q, MF, H	Q, H				
	S7	9	Single-Dimensional Arrays	Q, MF, H	MF, Q, H	Q, H				
	S8	10	Multidimensional Arrays	MF, H	H, MF	H				
	S9	11	Objects and Classes		Q, H, MF	H	Q, MF, H	MF		
	S10	12	Object-Oriented Thinking		H, MF	H	MF, H			

	S11	13	Inheritance			MF		MF			
	S12	14	Polymorphism					MF			

	No	**Type**	**Weight**	**Implementation Rule**	**Make-up Rule**
Assessment Methods and Weights	**MF**	Midterm, Final	65%	Exams will be closed books and notes. The students will be allowed to use 1-page cheat sheet during the exams. No calculators and communication tools are allowed during the exams.	Marmara University regulations will be followed for make-up exams.
	Q	Quiz	14%	At least five quizzes (both in-class and lab-quizzes) will be done. The date of in-class quizzes will be announced to the students beforehand; however, the lab-quizzes will be done without any announcement.	-
	H	Homeworks	21%	Six homeworks will be assigned in total. The due date of a given homework will not be more than ten days after it is assigned. Late submission will not be accepted. The student who does not submit the homeworks will take a grade of zero.	-
	L	Class/ Laboratory/ Field Work		Two hours of laboratory work will be done every week.	
	TOTAL		100%		

Determining Letter Grades

- The letter grades will be determined based on the midterm and final exams, quizzes and homeworks.
- In order to determine the letter grade, a curve or catalog based method will be followed based on the total average scores of the students.
- The final exam score and the total average score of the student must be at least 35 to pass the course.
- According to Marmara University Undergraduate regulations, the weight of the final exam must be at least 40 out of 100.

Assessment	Midterm	Quizzes	Homeworks	Final	TOTAL
Weight	25	14	21	40	100

Teaching Method, Student Work Load

Time Applied by the Instructor

No	**Method**	**Explanation**	**Hours**
1	Lectures	Lectures are given in class using the board or via presentations. Example questions are solved to enhance the concepts.	14x3=42
2	Problem Session/ Practice	Problems related to the course topics are solved on the board.	-
3	Laboratory	Experiments are done in the laboratory or theoretical concepts covered during the lectures are practiced using computer exercises.	14x2=28
4	Interactive Courses	Questions are asked to students during lectures and they are encouraged to guess the answers (peer learning is also in this category)	-
5	Field Work	Students attend activities outside the campus.	-
6	Midterm	Midterm exam is given during the midterm week.	2
7	Final	Final exam is given during the final exam week.	2
Estimated Time to be Allocated by a Student			
8	Project	The students carry out research about the problem given in the project, design and implement their solution and prepare a report.	-
9	Homeworks	The students solve the problems given as homework.	6x6=36
10	Pre-class learning of Course Material	The students study and learn the new subjects from course materials.	-
11	Review of Course Material	Students review the course subjects from course materials to prepare for the exams and homeworks.	36
12	Office Hour	Students ask questions to the instructor or the assistant during office hours.	4
Total			150

Academic Honesty

Violations of scholastic honesty include, but are not limited to cheating, plagiarizing, fabricating information or citations, facilitating acts of dishonesty by others, having unauthorized possession of examinations, submitting work of another person or work previously used without informing the instructor, or tampering with the academic work of other students.

In case academic dishonesty is observed, the first authority is the instructor of the course. The instructor may decide to give the student zero for the homework(s)/lab(s)/exam(s), give the letter grade FF, or may take disciplinary action.