TOROS ÜNİVERSİTESİ

Faculty Of Engıneerıng
Computer And Software Engıneerıng

Course Information

INTRODUCTION TO PROGRAMMING

Code	Semester	Theoretical	Practice	National Credit	ECTS Credit
		Hour / Week			
CSE105	Fall	3	2	4	4

Prerequisites and co-requisites	None
Language of instruction	English
Type	Required
Level of Course	Bachelor's
Lecturer	Asst. Prof. Dr. Maryam Eskandari
Mode of Delivery	Face to Face
Suggested Subject	None
Professional practise (internship)	None
Objectives of the Course	This course will introduce the basic elements of a structural and imperative programming language. The C language will be used. Topics include the concept of type, main types, expressions, standard functions, input/output statements, type conversion, flow of control structures, ifthenelse, loop structures, whiledo, repeat until, fortodo, case statements; procedures and functions, modularity in programming, global and local variables, pointers, dynamic variables, and arrays.
Contents of the Course	Problem solving. Input-Operation-Output process. Analysis and design of algorithms. Definiteness, finiteness, effectiveness of algorithms. Algorithm Language. Contants, variables and expressions. Arithmetical, relational and logical operators. Input-Output statements. Conditional and iterative statements. Vector and matrix representations. String manipulations. Subroutines and Functions. Applications on a structural programming language.

Learning Outcomes of Course

#	Learning Outcomes
1	Ability to learn algorithm structure and its instruments
2	Define fundamental concepts of programming.
3	Write programs using loops, arrays, functions, and structures of C programming language.
4	Describe a given solution method of a specific mathematical problem as an algorithm.

Course Syllabus

#	Subjects	Teaching Methods and Technics
1	Fundamental Concepts of Computer Sciences and Engineering	Lecture, discussion, presentation
2	Software and Hardware Concepts	Lecture, discussion, presentation
3	Number Bases, Conversion, Signed Numbers, Signed Numbers Arithmetic	Lecture, discussion, presentation
4	Introduction to Programming Languages	Lecture, discussion, presentation
5	Algorithm Concept	Lecture, discussion,

		presentation
6	Pseudo Code, Flow Charts	Lecture, discussion, presentation
7	Midterm	
8	Introduction to simple data types and operators: integer, float, character, addition, subtraction, multiplication, division, Input/Output	Lecture, discussion, presentation
9	Conditionals	Lecture, discussion, presentation
10	Loops	Lecture, discussion, presentation
11	Loops	Lecture, discussion, presentation
12	Arrays, Multidimensional Arrays	Lecture, discussion, presentation
13	Search Algorithms	Lecture, discussion, presentation
14	Sorting Algorithms	Lecture, discussion, presentation
15	Sorting Algorithms	Lecture, discussion, presentation
16	Final Exam	

Course Syllabus

#	Material / Resources	Information About Resources	Reference / Recommended Resources
1	"C Programming: A Modern Approach", Second Edition, K. N. King, Norton, 2008.		
2			

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	Ability to learn algorithm structure and its instruments	2,4,11	1,2
2	Define fundamental concepts of programming.	2,4	1,2
3	Write programs using loops, arrays, functions, and structures of C programming language.	2,4	1,2
4	Describe a given solution method of a specific mathematical problem as an algorithm.	2,4	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	3	42

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	0	0	0
15	Preparation for Final Exam	1	4	4
16	Final Exam	1	1	1
				120