

# TOROS ÜNİVERSİTESİ

Faculty Of Engineering  
Electrical And Electronics Engineering (English)

## Course Information

INTRODUCTION TO PROGRAMMING					
Code	Semester	Theoretical	Practice	National Credit	ECTS Credit
		Hour / Week			
CSE103	Fall	2	2	3	4

<b>Prerequisites and co-requisites</b>	
<b>Language of instruction</b>	English
<b>Type</b>	Required
<b>Level of Course</b>	Bachelor's
<b>Lecturer</b>	Asst. Prof. Omid SHARIFI
<b>Mode of Delivery</b>	Face to Face
<b>Suggested Subject</b>	
<b>Professional practise ( internship )</b>	None
<b>Objectives of the Course</b>	Students will be able to understand the Fundamentals of Computer usage and improve Microsoft Office programs (Word, PowerPoint, Excel) and Internet usage effectively.
<b>Contents of the Course</b>	The course introduces the art of programming in small steps, starting from clearly structuring the required data. Typed functions, conditional expressions, and repetition (recursion) are introduced alongside as the basic methods to operate on this structured data. A key aim is to illustrate the interdependency of algorithms and data structures - significantly, that data structures largely determine algorithms, for example, that products are processed by projections, unions by alternatives, and that recursive data structures such as lists are processed by recursive algorithms.

## Learning Outcomes of Course

#	Learning Outcomes
1	Adequate knowledge in mathematics, science and engineering subjects pertaining to the relevant discipline; ability to use theoretical and applied information in these areas to model and solve engineering problems.
2	Ability to identify, formulate, and solve complex engineering problems; ability to select and apply proper analysis and modeling methods for this purpose.
3	Ability to design a complex system, process, device or product under realistic constraints and conditions, in such a way as to meet the desired result; ability to apply modern design methods for this purpose. (Realistic constraints and conditions may include factors such as economic and environmental issues, sustainability, manufacturability, ethics, health, safety issues, and social and political issues, according to the nature of the design.)
4	Ability to devise, select, and use modern techniques and tools needed for engineering practice; ability to employ information technologies effectively.

## Course Syllabus

#	Subjects	Teaching Methods and Technics
1	Computer HW & OS	Lecture
2	Introduction to Algorithms, Definitions	Lecture
3	Introduction to Algorithms, Existing paradigms and relation to hardware	Lecture
4	Programming Foundations, Functions and States	Lecture
5	Programming Foundations, Expressions and Type systems	Lecture
6	Writing Simple programs and applications	Lecture

7	Midterm Exam	Review and exam
8	Continuous functions and switched alternatives	Lecture
9	Recursion: First introduction to primitive recursive functions	Lecture
10	Sequential and concurrent executions	Lecture
11	Conditional branching	Lecture
12	Webpage prep&pub.	Lecture
13	Repetition	Lecture
14	Rewievs and discussions on projects	Lecture
15	Final Exam	
16		

## Course Syllabus

#	Material / Resources	Information A bout Resources	Reference / Recommended Resources
1	All computer books, magazines, articles on internet		

## 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	Adequate knowledge in mathematics, science and engineering subjects pertaining to the relevant discipline; ability to use theoretical and applied information in these areas to model and solve engineering problems.	1	1,2
2	Ability to identify, formulate, and solve complex engineering problems; ability to select and apply proper analysis and modeling methods for this purpose.	1	1,2
3	Ability to design a complex system, process, device or product under realistic constraints and conditions, in such a way as to meet the desired result; ability to apply modern design methods for this purpose. (Realistic constraints and conditions may include factors such as economic and environmental issues, sustainability, manufacturability, ethics, health, safety issues, and social and political issues, according to the nature of the design.)	1	1,2
4	Ability to devise, select, and use modern techniques and tools needed for engineering practice; ability to employ information technologies effectively.	1	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	4	56
2	Course Duration Except Class (Preliminary Study, Enhancement)	14	2	28
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	0	0	0
8	Midterm Exam	1	1	1

9	Quiz	0	0	0
10	Homework	5	1	5
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	1	1
16	Final Exam	1	1	1
				<b>92</b>