

TOROS ÜNİVERSİTESİ

Faculty Of Engineering
Industrial Engineering (English)

Course Information

INTRODUCTION TO PROGRAMMING					
Code	Semester	Theoretical	Practice	National Credit	ECTS Credit
		Hour / Week			
CSE105	Fall	3	2	4	7

Prerequisites and co-requisites	None
Language of instruction	English
Type	Required
Level of Course	Bachelor's
Lecturer	Lec. Volkan Kadir GÜNGÖR
Mode of Delivery	Face to Face
Suggested Subject	None
Professional practise (internship)	None
Objectives of the Course	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.
Contents of the Course	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	To be able to comprehend student programming logic.
2	To be able to design algorithms.
3	Use Algorithm flow diagrams.
4	Student will be able to write object oriented program.
5	Students will be able to design Windows-based applications.

Course Syllabus

#	Subjects	Teaching Methods and Technics
1	Computer OS	Lecturing
2	Introduction to Algorithms, Definitions	Lecturing
3	Introduction to Algorithms, Existing paradigms and relation to hardware	Lecturing
4	Programming Foundations, Functions and States	Lecturing
5	Programming Foundations, Expressions and Type systems	Lecturing
6	Writing Simple programs and applications	Lecturing
7	Midterm Exam	Exam
8	Continuous functions and switched alternatives	Lecturing

9	Recursion: First introduction to primitive recursive functions	Lecturing
10	Conditional branching	Lecturing
11	Webpage prep	Lecturing
12	Webpage prep	Lecturing
13	Repetition	Lecturing
14	Reviews and discussions on projects	Lecturing
15	Reviews and discussions on projects	Lecturing
16	Final Exam	Exam

Course Syllabus

#	Material / Resources	Information About 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	To be able to comprehend student programming logic.	1	1,2
2	To be able to design algorithms.	3	1,2
3	Use Algorithm flow diagrams.	3	1,2
4	Student will be able to write object oriented program.	3	1,2
5	Students will be able to design Windows-based applications.	3	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	4	56
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	3	3
8	Midterm Exam	1	3	3
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	15	15
16	Final Exam	1	3	3
				150