



EASTERN MEDITERRANEAN UNIVERSITY  
SCHOOL OF COMPUTING AND TECHNOLOGY  
DEPARTMENT OF INFORMATION TECHNOLOGY  
COURSE POLICY SHEET



<b>Course Title</b>	Structured Programming
<b>Course Code</b>	ITEC114
<b>Type</b>	Full Time
<b>Semester</b>	Fall - Spring
<b>Category</b>	AC (Area Core)
<b>Workload</b>	240 Hours
<b>EMU Credit</b>	(3,2,0) 4
<b>Prerequisite</b>	ITEC113
<b>Language</b>	English
<b>Level</b>	First Year
<b>Teaching Format</b>	3 Hours Lecture, 2 Hours Laboratory per week
<b>ECTS Credit</b>	6
<b>Course Web Site</b>	<a href="http://lms.emu.edu.tr">http://lms.emu.edu.tr</a>

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Course Description
This module aims to introduce computer programming and emphasis in problem solving on the fundamentals of structured design using the principles of Top Down problem solving strategy. This course is a continuation of the study on the concepts of programming structures. The module also aims to explore the logic of programming and implement them in programming structures including functions, arrays, pointers, strings, structures and text file.

General Learning Outcomes
On successful completion of this course students should be able to: <ul style="list-style-type: none"><li>Analyze and explain the behavior of simple programs involving the fundamental programming constructs covered by this unit.</li><li>Modify and expand short programs that use standard conditional and iterative control structures and functions.</li><li>Design, implement, test, and debug a program that uses each of the following fundamental programming constructs: basic computation, simple I/O, standard conditional and iterative structures, and the definition of functions.</li><li>Choose appropriate conditional and iteration constructs for a given programming task.</li><li>Apply the techniques of structured (functional) decomposition to break a program into smaller pieces.</li><li>Describe the mechanics of parameter passing and the issues associated with scoping.</li><li>Write programs that use each: functions, arrays, files, strings and pointers.</li></ul>

Teaching Methodology / Classroom Procedures
<ul style="list-style-type: none"><li>The students are expected to be active learners in this course. The teaching methodology of this course is based on a lecture based discussion of concepts followed by supervised as well as unsupervised applications of these concepts in Lab. At the end of every major topic discussion, the students will have to work on corresponding</li></ul>

Lab assignments where they have to apply the knowledge and skills they learned in class.

- The student will be provided before coming each Lab Session to read Lab Assignments.
- Every week the student has to follow the following :
  - ✓ Three hours of Lectures to learn the basic skills and theoretical information needed.
  - ✓ Two hours of supervised Lab applications to apply the information/knowledge given during the lectures
  - ✓ Students are required to attend all classes and all Lab sessions.
  - ✓ Students are expected to carry out the assigned readings, attend quizzes.
- Students are responsible to know and use all the course material placed on the web (<http://lms.emu.edu.tr/akileoday>) and for timely attendance to all quizzes.
- There are two online assignments
- There are four online quizzes
- There is one online lab quiz
- There is a final exam which covers all topics

#### Course Materials / Main References

**Text Book:**

“C How to Program”, by DEITEL & DEITEL, Seventh Edition, 2012, ISBN-13: 978-0-13-299044-8

**Lecture Notes:**

- Lecture , Lab and tutorial notes on web link <http://lms.emu.edu.tr>

#### Weekly Schedule / Summary of Topics

##### Review (ITEC113)

##### C Functions (Chapter 5)

In this chapter, you'll:

- Construct programs modularly from small pieces called functions.
- Use common math functions in the C standard library.
- Create new functions.
- Use the mechanisms that pass information between functions.
- Learn how the function call/ return mechanism is supported by the function
- Use simulation techniques based on random number generation.
- Write and use functions that call themselves

##### C Arrays (Chapter 6)

In this chapter, you'll learn:

- To use the array data structure to represent lists and tables of values.
- To define an array, initialize an array and refer to individual elements of an array.
- To define symbolic constants.
- To use arrays to store, sort and search lists and tables of values.
- To define and manipulate multidimensional arrays.

	<p><b>C pointers (Chapter 7)</b></p> <p>In this chapter, you'll learn:</p> <ul style="list-style-type: none"> <li>- Pointers and pointer operators.</li> <li>- To use pointers to pass arguments to functions by reference.</li> <li>- The close relationships among pointers, arrays and strings.</li> <li>- To use pointers to functions.</li> <li>- To define and use arrays of strings.</li> </ul>
	<p><b>C Characters and Strings (Chapter 8)</b></p> <p>In this chapter, you'll:</p> <ul style="list-style-type: none"> <li>- Use the functions of the character-handling library (&lt;ctype.h&gt;).</li> <li>- Use the string-conversion functions of the general utilities library( &lt;stdlib.h&gt;).</li> <li>- Use the string and character input/output functions of the standard input/output library (&lt;stdio.h&gt;).</li> <li>- Use the string-processing functions of the string handling library(&lt;string.h&gt;).</li> </ul>
	<p><b>C Structures (Chapter 10)</b></p> <ul style="list-style-type: none"> <li>- Create and use structures</li> <li>- Pass structures to functions by value and by reference</li> </ul>
	<p><b>C File Processing (Chapter 11)</b></p> <p>In this chapter, you'll:</p> <ul style="list-style-type: none"> <li>- Understand the concepts of files</li> <li>- Create, read and write data using sequential-access file processing.</li> </ul>
	<b>Final Exams</b>

Requirements
<ul style="list-style-type: none"> <li>▪ The make-up exam will be organized at the end of the term after the finals and will cover all the topics. <b>(to be announced)</b></li> <li>▪ The Make-up exam will be given for the quizzes.</li> <li>▪ Students should follow the announcement in the course web site.</li> </ul>

Method of Assessment				
Evaluation and Grading	Online Quizzes (4)	Online Assignments(2)	Online Lab Quiz	Final Exam
<b>Percentage</b>	<b>30 %</b>	<b>20 %</b>	<b>10 %</b>	<b>40 %</b>

Grading Criteria *											
A	A-	B+	B	B-	C+	C	C-	D+	D	D-	F
90 -100	85 - 89	80 - 84	75 - 79	70 - 74	65 - 69	60 - 64	56 - 59	53 - 55	50 - 52	40 - 49	0 – 39

\* Letter grades will be decided upon after calculating the averages at the end of the semester and distribution of the averages will play a significant role in the evaluation of the letter grades.