



Course CS 1325 001 Introduction to Programming
Professor Dr. Miguel A. RAZO
Term Fall 2016
Meetings 8:30 PM-9:45 PM Tues & Thurs, JSOM 11.202

Professor's Contact Information

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Office Hours Tue/Thu 10:00 AM - 11:00 AM

General Course Information**Pre-requisites, Co-requisites, & other restrictions**

Prerequisite: Basic computer literacy/programming skills

Course Description

Computer programming in a high level, block structured language. Basic data types and variables, memory usage, control structures, functions/procedures and parameter passing, recursion, input/output. Programming projects related to engineering applications, numerical methods. This class is designed for Electrical and Mechanical Engineering majors and cannot be used to fulfill Major Requirements for Computer Engineering, Computer Science, Software Engineering, Telecommunications Engineering majors.

Student Learning Objectives

Our goal this semester is to introduce you to C as a basic tool that can be used to solve engineering problems. The official Course Learning Objectives (CLO's) for this course are quite general, but are as follows:

1. Ability to use fundamental programming constructs: assignments, loops, conditions.
2. Ability to process data in arrays.
3. Ability to develop programs in a functional form.
4. Ability to perform sequential file input and output.
5. Ability to express algorithms that solve elementary engineering and scientific problems.

Required Texts & Materials

C: How to Program", Deitel and Deitel, 8th Edition, Prentice Hall, 2015.
ISBN-13: 978-0133976892/ISBN-10: 0133976890

Suggested Texts, Readings, & Materials

"C Programming for Absolute Beginners" (2nd Edition) by Michael Vine. Course Technology, 2009
"Engineering Problem Solving with C", Etter, Pearson, 2013 (0-13-608531-8)
"C for Engineers and Scientists", Cheng, McGraw Hill, 2010 (978-0-07337605-9)

Academic Calendar

Unit	Topic
1	Intro to MATLAB
2	Basic C
3	Operators and Expressions
4	Control Structures
5	Functions
6	Arrays
7	C-Strings
8	Pointers
9	File Processing
10	Unions/Structures

Class Assignments:

There will be regularly assigned reading and homework problems. Reading assignments should be done before the class lecture. Homework problems will require the student to spend time programming a computer outside of class. It includes a test/sample scenario to demonstrate the correct operation of the assigned tasks.

Programming Project:

This is a team effort, 2-4 students per team. Register your team no later than the end of the fourth week of classes, when the project will be available on e-Learning. Each team should submit a monthly progress report, clearly stating at least 1) completed task and 2) tasks in progress. At the end of the semester you will present your project to the class (5 to 10 min). More details will be given in class.

Submitting Assignments

Programming assignments should be submitted using your elearning account. Each homework assignment should contain the following files:

1. A text copy of all source code including its documentation
2. A text copy of your programs input and displayed output (.txt)
3. A copy of the executable code

Student Learning Objectives:

Basic control structures, arrays, functions/procedures, parameter passing, pointers and strings. If there is time, we will examine the issues of dynamic memory allocation and file I/O.

Course Tools:

- **C Compiler:** All of the programs we write this semester will be in C. It is not essential that you use a particular C compiler. However, it is essential that your programs can be compiled and run by the TA's on their systems. Few options will be provided through elearning, for example, every student has access to a free student version of Microsoft's Visual C compiler, and there are some free downloadable compilers available as well.
- **Help Desk:** For help with issues regarding your computer, UTD maintains a walk-in help desk. Visit their Web site for details: <http://www.utdallas.edu/ir/helpdesk/>

Course Policies

Grading (credit) Criteria	Homework Assignments	10%
	Pop Quizzes	10%
	Programming Project	20% (Due on Dec 6)
	Exam 1	25%(Closed Book/notes)
	Exam 2	35%(Closed Book/notes)
Exam dates	Exam 1(October/4/2015), Exam 2(Dec 6)	
Make-up Exams	There will be no make-up exams unless previously requested and approved by the instructor	
Extra Credit	No extra credit assignments	
Late Work	No late homeworks, no partial credit	
Class Attendance	CS Department Policy:three consecutive absences leads to one letter grade drop. Four consecutive absences leads to an F.	
Classroom Citizenship	Class participation is given consideration. Respect for your classmates is necessary at all times	
All other policies	Please visit http://go.utdallas.edu/syllabus-policies for other policies	

These descriptions and timelines are subject to change at the discretion of the Professor.