



Course CS 1324 001 Introduction to Programming for Biomedical Engineers
Professor Dr. Miguel A. RAZO
Term Fall 2014
Meetings 8:30 AM-9:45 AM Mon & Wed, SLC 1.202

Professor's Contact Information

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Office Location ECSS 3.605
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Office Hours Tue/Thu 2:30 PM - 3:30 PM, or by appointment

General Course Information

Pre-requisites, Co-requisites, & other restrictions Prerequisite:: CS 1336 or equivalent. (3-0) S.

Course Description

Computer programming in a high-level, block structured language with a focus on engineering applications in medicine. Basic data types and variables, memory usage, control structures, functions/procedures and parameter passing, recursion, input/output. Programming projects related to biomedical engineering applications. May not be used to satisfy degree requirements for majors in Computer Engineering, Computer Science, Software Engineering, and Telecommunications Engineering.

Required Texts & Materials

C: "How to Program", Deitel and Deitel, 7th Edition, Prentice Hall, 2012

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 second 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

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/>
- **Tutoring:** For programming assistance in CS1325, a tutoring lab will be maintained. The schedule usually comes out a couple of weeks after the semester begins. Once the tutoring schedule for this semester has been released, an announcement will be posted on elearning. In addition, it is part of the TA's job to help you, so please feel free to engage with him/her at any time. And, of course, I'll be happy to help as well.

Course Policies

Grading (credit) Criteria	Homework Assignments	20%
	Programming Project	20% (Due on Dec 10)
	Exam 1	25%(Closed Book/notes)
	Final Exam	35%(Closed Book/notes)
	Letter Grade Scale (minimum grade required) 97=A+, 93=A, 90=A-, 87=B+, 83=B, 80=B-, 77=C+, 73=C, 70=C-, 67=D+, 63=D, 60=D-, 59-0=F	
Exam dates	Exam 1(October/1/2014), Final Exam(TBD)	
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	Required; Attendance will be taken	
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.