

## *Course Syllabus*

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### **Course Information**

Course Number/Section: CS 1324.001  
Course Title: Introduction to Programming for Biomedical Engineers  
Term: Fall 2016  
Days & Times: Mon / Wed 8:30 – 9:45am

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### **Professor Contact Information**

Dr. Ranran Feng  
Office: ECS 4.209  
Email: rrfeng@utdallas.edu  
Office Hours: Mon/Wed 1:00-3:00PM (Or email me for specific appointment)

NOTE: This class will not have TAs. However, Programming tutors will be available at ECS Open Lab Monday to Friday all day if you have any questions.

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### **Course Pre-requisites, Co-requisites, and/or Other Restrictions**

Prerequisite: CS 1336 or equivalent. (3-0) S.

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### **Course Description**

**CS 1324** - 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

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### **Required Textbooks and Materials**

**C: How to Program”, Deitel and Deitel, 8th Edition, Prentice Hall, 2016**

“C Programming for Absolute Beginners” (2nd Edition) by Michael Vine. Course Technology, 2009 (Optional)

“Engineering Problem Solving with C”. Etter, Pearson, 2013 (0-13-608531-8) (Optional)

“C for Engineers and Scientists”, Cheng, McGraw Hill, 2010 (978-0-07337605-9) (Optional)

### **Assignments & Academic Calendar**

#### ***Important Dates:***

Classes start - Aug 22 (Monday)

Census day, last day to drop w/o W - Sep 9 (Wednesday)

Exam 1 - Oct 12<sup>th</sup> (Wednesday)

Exam 2 - Dec 7<sup>th</sup> (Wednesday)

University Closings:

Labor Day – Sep 7 (Monday)

Fall Break – Nov 23 - 28

Class Topics:

Intro to MATLAB

C: Operators and Expressions

C: Control Structures

C: Functions

C: Arrays

C: Strings and advanced arrays

C: Pointers

C: File Processing

C: Structure and Unions

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### **Assignment and Grading Policy**

<i>Homework Assignment</i>	<i>25%</i>
<i>Term Project Assignment</i>	<i>20%</i>
<i>Exam 1</i>	<i>20%</i>
<i>Exam 2</i>	<i>25%</i>
<i>Attendance</i>	<i>10%</i>

**Department Policy on Attendance: Three consecutive absences leads to one letter grade drop. Four consecutive absences leads to an F.**

Assignment due dates: Assignments are due by 11:59pm on the due date.

Late Penalties for Assignments: For each day late, including weekends, 20 percent of the total possible points will be deducted. No work will be accepted if it is more than three days.

**Grade Dispute: All grade disputes must be reported within 1 week and resolved within 2 weeks of the grade in question being posted in eLearning.**

I am responsible for grading your exams and project. If you have questions regarding your exams and project, please contact me.

Everything else will be graded by grader. Please address any grading concerns you have regarding these grades with the grader. When you email the grader with questions about your grade, please copy me on the email so that I am aware of the situation and can make sure it is resolved.

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### **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..

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### What I Expect of Each Student

- **Ask for help.** Email me or stop by during office hours. I want you to succeed. I would rather point you in the right direction so that you can complete an assignment instead of you remaining quiet and failing an assignment.
- **Ask questions any time!** During lecture, before/after class, during office hours, etc. I will respond as soon as I can.
- **Take responsibility for your education.**
- **Attend every class.**
- **Practice time management skills.** All assignments (homework and projects) are designed to be worked on over a period of days or weeks. I expect that you will work on the assignment a little at a time rather than waiting until a day or two before it is due. Those that procrastinate will find this class to be much harder than it should be and will face the risk of below average grades.

**All Other Policies** Please visit <http://go.utdallas.edu/syllabus-policies> for other policies.

*The descriptions and timelines contained in this syllabus are subject to change at the discretion of the Professor.*