Computer Science & Engineering Syllabi   College of Engineering & Computer Science

Winter 2012

CEG 220: Introduction to C Programming for Engineers

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Syllabus
CEG 220 Introduction to C Programming for Engineers
Winter 2012

Section 01 – M W 2:45 p.m. – 4:00 p.m. in Russ Engineering Center Room 355
Section 02 – M W 4:10 p.m. – 5:25 p.m. in Russ Engineering Center Room 154

Description: This course provides a general introduction to computers as a problem-solving tool using the C programming language. Emphasis is on algorithms and techniques useful to engineers. Topics include data representation, debugging, and program verification.   4 credit hours. Prerequisite: MTH 229 (Calculus I) or EGR 101 (Engineering Mathematics). The course includes a scheduled laboratory section for which you must register.

Instructor: Dr Jay DeJongh, 341 RC, 775-2555. E-mail: jay.dejongh@wright.edu Office hours: 12:30-2:15 M, W.   Other hours by appointment; all you have to do is talk to me and we will find a time to meet.

Textbooks:
  Required: C Programming: A Modern Approach, 2nd ed, K. N. King, W. W. Norton and Company, 2008.
  Recommended: C Programming for Scientists and Engineers with Applications, R. N. Reddy and C. A. Ziegler, Jones and Barlett Publishers, 2010.

Software: Dev-C++ Version 4.9.9.2 for Windows. Free download from http://www.bloodshed.net.

Grading: One midterm exam: 20%. One Final: 30%. Ten Laboratories: 20%.   Four Projects: 30%. Midterm exam and the final exam will be closed book, closed notes. A one page, 8.5 x 11 help sheet will be allowed.

Grading scale: **A:** 100-90, **B:** less than 90-80, **C:** less than 80-70, **D:** less than 70-60, **F:** less than 60-0.

Policy:

Projects are due at the time and date specified on Pilot. Laboratory Exercises: Although lab exercises are "officially due" Friday evening, your goal should be to turn them in by the **end of your lab section** each week. If you do, you will earn **5 extra credit points** for that lab, as long as you earn at least 60% on the material itself. Your lab instructor will explain these procedures in lab during the first week. Projects: **Projects are due on Saturday evenings by 11:55 pm.** Late projects will be accepted up to 24 hours after the due time/date with a 20% grade penalty. No makeup exams unless there is a verifiable emergency. Exceptions to the late policy may be made only under the most unusual circumstances. All work must be your own; sharing of program code will result in a grade of "zero" for all involved. However, sharing ideas and general computer skills with others outside of class is encouraged. Students are expected to read and follow the Academic Integrity Policy:

http://www.wright.edu/students/judicial/integrity.html

Pilot:

Grades will be posted, projects and labs will be assigned, and programs will be submitted, through Pilot. Students should become familiar with Pilot (campus login username and password required) and should read the instructions on the entry page at: http://pilot.wright.edu

Schedule:

Week 1	Course Policies, Problem Solving, Algorithms, C Fundamentals, Variables, Data Types, Input/Output	Chap 1, 2 , 3		
Week 2	Input/Output, Operators, Expressions, Math functions, Character Functions, Math Expressions	Chap 4 Chap 23.3 - 23.5	Project 1 Assigned	
Week 3	Functions, Scope, Extent	Chap 9.1 – 9.5 Chap 18.1 – 18.2		
Week 4	Selection Statements Loops,	Chap 5, 6		Project 1 Due
Week 5	File Operations Arrays	Chap 22.1 – 22.4 Chap 8	Project 2 Assigned	
Week 6	2D Arrays, Arrays and Functions Midterm Exam (Wednesday)	Chap 8		Project 2 Due
Week 7	Strings, Arrays and Strings	Chap 13, Chap 23.6,	Project 3 Assigned	
Week 8	Arrays and Strings	Chap 13, Chap 23.6		Project 3 Due
Week 9	Pointers, Pointers Applications	Chap 11, Chap 12	Project 4 Assigned	
Week 10	Pointers and Arrays Review	Chap 12		Project 4 Due
Week 10.5	Last Day of Class: Mon, Mar 12. Pointers and Arrays, Review			
Final Exam	Section 01 – Wed, Mar 14, 3:15 – 5:15 pm Section 02 –Fri, Mar 16, 4:15 – 6:15 pm			