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Fall 2010

CEG 220-01: Introduction to C Programming for Engineers

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Syllabus CEG 220 Introduction to C Programming for Engineers Fall 2010

Section 01 – M W 12:15 p.m. – 1:30 p.m. in Russ Engineering Center Room 154 Section 02 – M W 4:10 p.m. – 5:25 p.m. in Millett Hall Room 402

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: 2:00-3:30 M, W, 2:00 – 4:00 T, TH. Other hours by appointment; all you have to do is talk to me and we will find a time to meet.

Textbooks:

Required: <u>C Programming: A Modern Approach</u>, 2nd ed, K. N. King, W. W. Norton and Company, 2008. Recommended: <u>C Programming for Scientists and Engineers with Applications</u>, 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: Two Exams: 25%. One Final: 20%. Ten Laboratories: 25%. Five Projects: 30%. Course Exams 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 WebCT. There will be no credit for late submittals. 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. 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

WebCT:

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

Schedule:

Week 1	Intro, C Fundamentals, IDE, Constants, Variables, Data Types, Input/Output	Chap 1 - 3 Chap 7.1-7.5	Project 1 Assigned	
Week 2	Input/Output, Operators, Expressions, Math functions, Character Functions, Math Expressions	Chap 4 Chap 23.3, 23.5		Project 1 Due
Week 3	Problem Solving, Selection Statements	Chap 5	Project 2 Assigned	Project I Due
Week 4	Loops Exam 1 Wed	Chap 6		
Week 5	Loops, File Ops, Advanced Input/Output Arrays	Chap 6, Chap 22	Project 3 Assigned	Project 2 Due
Week 6	Arrays, Functions Program Organization	Chap 8, Chap 9, Chap 10		Droingt 3 Dun
Week 7	Functions Strings, Arrays and Strings	Chap 9 Chap 13, Chap 23.6,	Project 4 Assigned	Project 3 Due
Week 8	Arrays and Strings Exam 2 Wed	Chap 13		D 4 D
Week 9	Pointers Pointers and Arrays	Chap 11 Chap 12	Project 5 Assigned	Project 4 Due
Week 10	Pointers and Arrays Review	Chap 12		B
Final Exam	Section 01 – Wed , Nov 17, 1:00 – 3:00 pm Section 02 – Mon, Nov 15, 5:457:45 pm			Project 5 Due