Summer 2011

CEG 220-01: Introduction to C Programming for Engineers

Dennis Kellermeier
Wright State University - Main Campus

Syllabus

CEG 220 Introduction to C Programming for Engineers
Summer 2011

Section C01 – T R 6:05 p.m. – 7:20 p.m. in Russ Engineering Center Room 346

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: Dennis Kellermeier, **160 Russ Engineering Center**, 320-0717.

E-mail: dennis.kellermeier@wright.edu

Office hours: 5:00 – 6:00 T, R. 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: Two Exams: 25%. One Final: 25%. Nine Laboratories: 20%. Four 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 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

Week 1 Jun 13-17	Intro, Problem Solving, Algorithms, C Fundamentals, IDE, Constants, Variables, Data Types, Input/Output	Chap 1 - 3 Chap 7.1-7.4	Project 1 Assigned	Lab 1 Due
Week2 Jun 20-24	Input/Output, Operators, Expressions, Math functions, Character Functions, Math Expressions	Chap 4 Chap 23.3, 23.5 Chap 23.4 (optional)	Project 1 Due	Lab 2 Due
Week3 Jun 27-Jul 1	Functions, Scope, Extent	Chap 9.1 – 9.5 Chap 18.1 – 18.2	Project 2 Assigned	Lab 3 Due
Week 4 Jul 5 - 8	Selection Statements Exam 1 Thurs	Chap 5	Project 2 Due	Lab 4 Due
Week 5 Jul 11 - 15	Loops, File Operations Advanced Input/Output	Chap 6, Chap 22.1 – 22.4	Project 3 Assigned	Lab 5 Due
Week 6 Jul 18 – 22	Arrays	Chap 8	Project 3 Due	Lab 6 Due
Week 7 Jul 25 - 29	Strings, Arrays and Strings	Chap 13, Chap 23.6,	Project 4 Assigned	Lab 7 Due
Week 8 Aug 1 - 5	Arrays and Strings Exam 2	Chap 13, Chap 23.6	Project 4 Due	Lab 8 Due
Week 9 Aug 8 - 12	Pointers Pointers and Arrays	Chap 11 Chap 12		Lab 9 Due
Week 10 Aug 15 - 19	Pointers and Arrays Review Exam 3 Thurs	Chap 12		Lab 10 Due