

Syllabus for Program Design with C. Spring 2006.

Course Number: CS 201, Section: 01, CRN: 33409, Credits: 3

Prerequisites: CS 160*; **Corequisite:** MATH 160.

** If you have not completed this course you must get a prerequisite waiver form signed by your advisor, CS Department Head, and the Dean of College of Engineering. Good luck on that one...*

Lectures: Monday & Wednesday – 3:10-4:00PM @ 101 Roberts Hall

Laboratories: Tuesday – 8:00-9:50AM & 10:00-11:50AM @ EPS 110

Wednesday – 1:10-3:00PM @ EPS 110

Course Web page: <http://www.cs.montana.edu/courses/201/>

Lecturer: Dr. Rafal A. Angryk

- ◇ Office: 362 Engineering/Physical Sciences Building
- ◇ E-mail: angryk@cs.montana.edu
- ◇ Phone: (406) 994-4440 (My Office), 994-4780 (CS Office)
- ◇ Fax: (406) 994-4376 (CS Office)
- ◇ Home Page: <http://www.cs.montana.edu/angryk/>
- ◇ Consultations on the class-related issues:
 - Right after each class in a classroom
 - Office hours:
 - Monday and Wednesday 10:00-11:00 AM
 - Thursday 11:00-12:00 PM
 - By individual appointment (Please, call or e-mail me first!)

Teaching Assistant (Homeworks and Laboratories): I. Todd Trotter

- ◇ E-mail: ishamt@cs.montana.edu
 - ◇ Office: 109 Engineering/Physical Sciences Building
 - ◇ Phone: 994-7804 (109 EPS – Graduate Students Office), 994-4780 (CS Office)
 - ◇ Home Page: <http://www.cs.montana.edu/~ishamt/>
 - ◇ Consultations on the class-related issues:
 - During each lab in the EPS 110
 - Office hours (tentative!):
 - Tuesday 1:00-2:00 PM
 - Thursday 2:00-3:00 PM
-

Books:

- ◇ **Textbook:** “Problem Solving and Program Design in C”, by Jeri R. Hanly & Elliot B. Koffman, **Publisher:** Addison Wesley; 4th edition (July 21, 2003), **ISBN:** 0321198034. Readings reference code on CS 201 website: **HK** = Hanly/Koffman text.
 - ◇ **Additional textbook*:** “C++ for Java Programmers”, by Mark Allen Weiss, **Publisher:** Prentice Hall, **ISBN:** 013919424X. Readings reference code on CS 201 website: **MAW**= Mark Allen Weiss text.
**Some readings from this book may be required. I do not think it is necessary to buy the book though.*
 - ◇ **You are expected to read all relevant readings before the class.** The readings will be posted on the website at least a few days before the class. Bringing books to the class during this course is recommended, but not necessary.
-

Some useful Web references:**Some C Library reference guides:**

http://www-h.eng.cam.ac.uk/help/tpl/languages/C/teaching_C/teaching_C.html

http://www.acm.uiuc.edu/webmonkeys/book/c_guide/

<http://msdn.microsoft.com/library/default.asp?url=/library/en-us/vccelng/htm/clintro.asp>

<http://www-ccs.ucsd.edu/c/>

Learning C from Java Programmer perspective:

<http://www.comp.lancs.ac.uk/computing/users/ss/java2c/>

<http://www.comp.lancs.ac.uk/computing/users/ss/java2c/diffs.html>

http://www-ali.cs.umass.edu/~mckinley/377/labs/c++_for_java_programmers.html

<http://www.cs.brown.edu/courses/cs123/javatoc.shtml>

Course description

This course is designed to provide students with sufficient foundation to create computer applications in the C language. Students will learn imperative programming with C and become familiar with the C standard library. The course covers usage of pointers and discusses certain aspects of memory management with C language. Students will gain hands on experience through multiple programming assignments.

Course content

- ◇ **75%:** Programming in C, using standard C libraries (Ansi C).
 - ◇ **10%:** Usage of Linux
 - ◇ **15%:** Introduction to C++.
-

Course outcomes

At the end of the course, students should be able to:

- ◇ Build computer applications using C language, and apply their knowledge to solve basic real-life problems.
 - ◇ Test and debug their C code (if necessary!).
 - ◇ Take advantage of major capabilities of C and C++ programming languages.
 - ◇ Understand, appreciate and respect power of pointers in C programming.
-

Contributions of all grades to the final course grade:

- ◇ **Attendance:** Attendance to the course is not required; however anything that you miss is your problem. You are responsible for all material that you have missed. Daily quizzes or assignments missed due to absence CAN NOT be made up. Participation in laboratories is strongly recommended.
- ◇ **Exams during the course** (probably 2, not more than 3), and **Daily Quizzes** (if necessary!): **30%**
- ◇ **Final Exam** (covers the whole semester of work: readings, assignments, and lectures): **20%**
- ◇ **Laboratories and Homeworks:** **50%**
- ◇ **Do not expect linear distribution of points on any assignments, quizzes, tests, homeworks, etc.**

Please be aware that Computer Science is a production-oriented discipline. In the field it is not enough for students to try hard, they need to succeed! ALL grades will be based NOT on your efforts but on your achievements!

ATTENTION! You are obligated to get acquainted with my general class guidelines. I consider registration and participation in my class as acceptance of ALL my teaching rules and class policies.