Syllabus: CS501b Program Devel/CS275 Intro Alg Lang

Course Number: CS501b-50/CS275-50

Course Title: Program Development/Intro Alg Lang

Instructor: Richard Scherl

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Class Times: Tuesdays 4:00 – 5:50  Thursdays 4:00 - 5:50

Class Location: Tuesdays HH530  Thursdays HH546

Office Hours: Tuesdays, 2:00-4:00, Wednesdays 6:00-8:00

Texts:

Required  *C++ From the Beginning* by Jan Skansholm. Addison Wesley.

Expected Work: Regular reading assignments, three midterm examinations, a number of homework (primarily programming) assignments, and a final examination.

Class Web Page  www.monmouth.edu/~rscherl/CS501b/

Class Information All computer-generated overheads and handouts will be put on the web.

Grading:

- Midterms 20 %
- Quizes 10 %
- Labs 20 %
- Final 20 %
- Homeworks 30 %

Exam Dates
Midterm I  February 17
Midterm II  March 22
Midterm II  April 19
Final       To be announced.

Class Participation: If you miss a class, it is your responsibility to find out about any announcements made in class, and about the material covered. Similarly you are responsible for all information included in any assignments whether handed out or transmitted online and for all the information in this syllabus. Class participation is strongly encouraged, but you will not be graded for your class participation. Feel free to ask questions. When in doubt, ASK.

Late Policies: Homeworks should be handed in on the date due. The deduction for late homeworks is 5% per day up till 1 week late. Late homeworks may not be handed in by email except by special arrangement under special circumstances. They should be handed in to me directly. If you leave them in my mail box or under my door, you should also send me an email saying that you left it. They may also be mailed in by U.S. mail with the postmark date being used as the date handed in. After the one week has ended, late homeworks can be corrected, but will not receive credit as the solutions will have been discussed in class.

Computer: All students will need an account on rockhopper. You may do your assignments on any machine (including your own PC), but I can only guarantee that the software will work as intended on rockhopper. Additionally, all code must work with the g++ compiler on rockhopper.

Prerequisites: CS 501a with a grade of B- or better, or permission of the instructor. Familiarity with Unix.

Goals of the Course: After reviewing basic C++, the course proceeds to cover classes and object oriented programming, function calls by value and by reference, pointers and dynamic memory, more advanced array manipulation, and file I/O.

Programming Assignments There will be a number of programming assignments in C++. For every assignment, you must provide not only the code but also some sample runs of the code. When an assignment is completed, the following 2 things need to be done.

- Hand in a hard copy of both the code and the test runs in class.
The code needs to be made available to me on Rockhopper. (Full instructions to be made available later.) You need to choose a code name for the directory to hold your CS501b homeworks. This directory will be made readable to the outside, but you are to only give the code name to me.

The grade that a programming assignment receives will be based upon a variety of factors including

- Results of testing the code.
- Readability of the code.
- Ability of the author to answer questions about the code.

**Academic Honesty:** Cheating in this course will not be tolerated. Both the giver and the receiver of information will receive the same penalty. The penalty is likely to be an F in the course and may very well lead to expulsion from Monmouth University. All such cases will be handled as outlined in the *Monmouth University Student Handbook*. Homeworks may NOT be solved in collaboration. You may talk about problems with each other. Where does talking end and cheating start? My rule of thumb is: you may not have a pen/pencil in your hand while you are talking (and no keyboard!).

**Special Accommodations** Students needing accommodations are encouraged to see me during office hours or to make a specific appointment to discuss their needs. Students with disabilities who need special accommodations for this class are encouraged to meet with me and/or the appropriate disability service provider on campus as soon as possible. In order to receive accommodations, students must be registered with the appropriate disability service provider on campus as set forth in the student handbook and must follow the University procedure for self-disclosure, which is stated in the University *Guide to Services and Accommodations for Students with Disabilities*. Students will not be afforded any special accommodations for academic work completed prior to the disclosure of the disability and prior to completion of the documentation process with the appropriate disability service office.

**Regrades** All disagreements about grading must be discussed in my office only. A request for an assignment or exam to be regraded must include a written note explaining the disagreement and also the original exam or assignment. These requests may be submitted in class or in my office. Regrade requests for a particular exam or assignment can only be accepted until the next test or assignment is due.

**Course Content** Tentative and subject to change

**Segment 1** Review
Segment 2  Classes
Segment 3  Program Organization *.h, *.cpp
Segment 4  Pointers
Segment 5  Arrays with pointers
Segment 6  Useful classes with arrays
Segment 7  Simple File I/O

Initial Assignment  Chapters 1, 2, and 3 of Skansholm