## CSI 202 - Computer Science II

Instructor: Dr. Shaun D. Ramsey Email: sramsey2@washcoll.edu

Office Hours: M 11:30, T 10:30 W 11:30-12:20

**TEXT:** C++ Plus Data Structures - Dale

Overview: CSI 202 is a course in data structures. The semester begins with an overview of key topics from CSI 201, followed by pointers and basic data structures such as linked lists. A brief overview on classes leads to development and use of standard data structures such as vectors, stacks, and queues. The course finishes its tour through data structures with topics in trees and sorting.

Advising: CSI 201 is a prerequisite. Like in much of mathematics, the fundamentals of programming must be solid before progressing. This course is often considered to be a difficult course for those with weaker logic, problem solving skills and especially those weak in programming.

**Exams:** Tentative exam dates are: 9/21, 10/19, 11/16. The final exam will be administered during its scheduled slot during final exam week. An absence on the day of the exam will result in a grade of 0. Except in cases of very extreme emergency, exams must be taken on the day the exam is given. Before a make-up test is scheduled, documentation of the extreme emergency must be given. Make-up exams for tests missed due to an extreme emergency will be arranged for a time that is mutually convenient for the student and Dr. Ramsey.

Attendance: Attendance is mandatory in this course. On your sixth absence, you automatically fail the course. As a matter of courtesy, you are expected to notify Dr. Ramsey before class describing the reason of your absence. You must be present on the day of an exam or you will receive a 0.

There is no distinction between excused and unexcused absences. It is quite likely that I will email you to discuss the reasons you have missed the class, but it is ultimately your duty to keep track of your absences and to contact me. Missing a class may result in missed classwork and/or quizzes.

There are no make-up quizzes or classwork. It is your responsibility to obtain assigned homework, announcements and class notes from a classmate.

Coming late to class will also count against you. In this case, every two late arrivals count as an absence. Thus you fail the course with 12 lates or 6 absences.

Grading: Each exam (and the final) is worth 20% of your final grade. Homework, classwork and quizzes are worth the last 20% of your grade. Programming assignments must be handed in on time and compile. Late homework (and programming that does not compile) will receive a grade of 0. Homework is due by the beginning of class on the day it is due. Do not 'touch' or modify your files on the server after handing in the assignment as this will change the time stamp. If you miss an assignment, you should always make up the work for consideration, review and mark up.

Academic Honesty: You are always subject to the Honor Code of Washington College. Always sign the honor code on materials that you hand in to me. All work must be your own.

**Accommodations:** If you have an accommodation that has been reported to the college, please let me know as soon as possible so I can work to meet your accommodation. To receive your accommodation, you must notify me at least two weeks prior to the requirement.

Suggestions: Get into a group. You may point out programming errors and discuss design with others, but all code must be of your own creation. Copying another students code will result in immediate failure of the course. Visit the math center and course mentor! There are lots of resources.

## Rough Outline

Week 1	Review and Dynamic Memory
Week 2	Linked Lists
Week 3	Classes
Week 4	Classes and Exam 1
Week 5	Dynamics and Classes
Week 6	Inheritance, Vectors
Week 7	Stacks, Queues
SPRING	BREAK
Week 8	Sorting and Exam 2
Week 9	Sorting
Week 10	Trees
Week 11	Balanced Trees
Week 12	Trees and Exam 3
Week 13	Sorts
Week 14	Sorts, I/O