Instructors

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GTAs

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Course Description

Design and implementation of data structures, intermediate software engineering design principles, and object-oriented programming skills. Emphasis on algorithm analysis, design patterns, testing, debugging, and organizing and managing larger programs. Topics include sorting, searching, file processing, indexing, hashing, algorithm analysis, and advanced tree structures.

Prerequisites: A grade of C or better in CS 2605. No exceptions will be granted.

Textbooks

(Required)  

(Recommended Additional Reference)  

Course Web Site: ([http://courses.cs.vt.edu/~cs2606/Spring08](http://courses.cs.vt.edu/~cs2606/Spring08)) The course web site will include copies of the syllabus (this document), notes as available, pertinent department policy statements, office hours, test dates, programming project specifications as available, timely announcements, and links to other useful information. You are advised to consult the Website on a regular basis.

Course Requirements and Grading:

- Programming Projects: 40%
- Homeworks/Quizzes: 25%
- Midterm Exam (March 13): 15%
- Final Exam (May 3, 7-9pm): 20%

Final grades will be set according to the usual 10-point scale, i.e., 90% guarantees at least an A-, 80% at least a B-, etc. A curve may or may not be applied to the final averages; that decision rests entirely with the instructor.
Policies:

**Programming Projects:** The programming projects will be implemented in C++. The GTAs will compile and test programs using GNU G++ under Cygwin under Windows XP. It is your responsibility to ensure that your programs execute correctly in the appropriate environment. If you are using another compiler it may be advisable to test each of your programming projects in the lab prior to submission. All the programming projects will be submitted through the Curator system.

Each of your programming projects will also be graded for adherence to good software engineering principles, including documentation, design, conformance to the stated specification, and programming style. Programming standards specifications will be available from the course website.

**Homework:** Unless instructed otherwise, homework assignments should be prepared electronically and also submitted electronically through Curator system.

**Late Submissions:** Programming assignments and homework may be submitted up to two days after the due date, penalized at 10% per day late. No submissions will be accepted beyond this two-day limit. Delays resulting from machine availability, lab schedules, hardware failures or your failure to maintain a backup of your work will not merit consideration.

**Quizzes and Tests:** Quizzes will be unannounced and may occur at any time during the class meeting. There will be a midterm and a final exam. Make up quizzes or exams will not be given, although in the event that quizzes or exams are missed due to excusable absences (must be with an accompanying letter from the dean or a physician), score substitutions may be applied but will be dealt with on a case-to-case basis.

**Questions on Grades:** Any questions about the grading of a requirement must be raised with your instructor within two weeks after the graded requirement has been made available to you.

**Honor Code:**

The Honor Code will be strictly enforced in this course. All work submitted shall be considered pledged graded work, unless otherwise noted. All aspects of your work will be covered by the Honor System. Honesty in your academic work will develop into professional integrity. The faculty and students of Virginia Tech will not tolerate any form of academic dishonesty.

An exhaustive list of Honor Code violations would be impossible to present here, but most importantly, all work, including programming assignments, are to be done on an individual basis. Help may be obtained only from the instructor or the GTAs. Consult the course web site for details on exactly how the honor code applies to requirements for CS courses.

**Special Needs:**

If any student needs special accommodations because of a disability, please contact the instructor during the first week of classes.