CS2606: Data Structures and File Processing
Fall, 2006

Class: (1) CRN 96270: TuTh 2:00am–3:15pm in GBJ 104
(2) CRN 96271: MWF 11:15am–12:05pm in Norris 204

Instructors: (1) Dr. C.A. Shaffer, Torgerson 2000A, 540-231-4354
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GTAs: Matt Cooper, Email: macooper@vt.edu
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      Regis Kopper, Email: kopper@vt.edu
      Office Hours: Will be posted at the web site

Prerequisites: Grade of C or better in CS2605.

Textbook: A Practical Introduction to Data Structures
          and Algorithm Analysis – Second Edition
          by Clifford A. Shaffer
          Course notes will be posted at the course website.

Course Website: http://courses.cs.vt.edu/~cs2606

Grade Weighting: 4 Projects: 45% total
                  Midterm and final: 30%
                  In-class and out-of-class assignments: 25%

Honor Code:
The Virginia Tech Honor Code applies to this course and will be strictly enforced. Homework assignments and exams must be done strictly on an individual basis. Programming assignments will be done using the pairs programming technique, and pairs will jointly submit assignments. Aside from your pair partner, it is acceptable to discuss with classmates a programming assignment in a general way, i.e., to discuss the nature of the assignment. In other words, you may discuss with your classmates what your program is required to accomplish but not how to achieve that goal using C++. In no way should the individual statements of a program or the steps leading to the solution of the problem be discussed with or shown to anyone except the graduate teaching assistants, the instructor, or the free tutors provided by ACM or UPE. Any discussion of your program source code must be limited to these people or your pair partner.
Always give credit for work that is not entirely your own (e.g., parts of programs or homework answers borrowed from a book).

Prerequisites:
The Computer Science Department rigorously enforces the prerequisite requirements for all courses. Additionally, for majors or minors in Computer Science the Department enforces the requirement that all prerequisite Computer Science courses be completed with a grade of C or better. Any student not meeting these requirements and not obtaining written permission from the course instructor to remain in the course, must withdraw from the course within the first week of classes. Any student who is subsequently found not to meet these requirements will be subject to an honors violation report on the basis of falsification of qualifications. Instructors are NOT bound to investigate the records of students to ascertain their prerequisite status; this is the student’s own responsibility.

In all cases, the student is responsible for knowing all prerequisite material.

Assignments and Grading Policy:
This is in large part a programming course, and programming projects count for 45% of your grade. You are expected to produce programs which are both readable and correct. The CS Departmental Documentation Standards entitled “Elements of Programming Style” (available from the course website) will be enforced.

One purpose of a data structures course is to teach efficient algorithms and use of appropriate data structures. Another purpose of this course is to exercise your design abilities. It is not sufficient that a program generate the correct answer and be written with good documentation style. Projects will also be graded in part on design and organization quality, and in part on efficiency. You should certainly pay attention when the instructors discuss issues related to “good” and “poor” design choices for the projects. These issues directly affect your grade.

Solutions to homework assignments must be typeset either using a word processor or in plain ASCII text. No handwritten work (including scanned documents) will be accepted.

All programming assignments will have a stated due date, a stated early bonus date (generally 1-2 days preceding the due date) and a stated “drop dead” late submission date (generally 2-3 days after the due date). Working programming assignments handed in by the specified time on the bonus date will receive a 10% bonus. Programming assignments turned in after the stated due date will be penalized as stated on the assignment. A final late date will be listed. Programming assignments will not be accepted after that time, unless an extension has been granted.

There will be a number of non-programming assignments, some done in class and some out of class. Such assignments are due at the date and time specified. No late assignments will be accepted unless an extension has been granted.

All assignments will be submitted electronically. The acceptor program used to receive your assignments will provide the official timestamp used to determine whether a program is on time. Assignments will lose 1 point per minute late until reaching the credit level for the next due date. For example, if a program is worth 100 points, and is turned in 3 minutes
after the early bonus due date, then it would receive \( \frac{100}{10} - 3 = 7 \) bonus points. If the program were turned in more minutes late than the amount of the early bonus, but prior to the regular due date, it would simply be counted as being turned in on time. A similar calculation applies to projects turned in a few minutes after the regular due date or the late date. **Be warned** – the “few minutes late” penalty is automatic, and there will be no exceptions or mitigating circumstances. **Don’t push deadlines.**

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

**Equipment and Programming Language:**
All programming for this course will be done in C++. The GTAs will compile and test programs using Gnu G++ under the Cygwin release on the CS Undergraduate lab machines. It is the responsibility of the student to submit a program that will successfully compile and execute on the specified platform. Computing facilities are available for use in the Departmental Computing Lab.

Test data files will be provided via the CS2606 website.

**Class Forum**
The class forum can be found at [https://forum.cs.vt.edu/forum_show.pl](https://forum.cs.vt.edu/forum_show.pl). This forum will be the source for all official announcements related to the class. We might remember to announce a test, assignment, or change to spec or due date in class, but there is no guarantee or promise that we will. The class forum is the **only** official, reliable source for announcements, changes, etc for this course. If something an instructor says in class conflicts with information posted at this forum, then the forum takes precedence. Verbal instructions are easily mis-interpreted, nor do they leave a paper trail. The excuse “my instructor/GTA said something else” will not be accepted. Check the forum daily.