Instructor: John Paul C. Vergara, PhD
625 McBryde (231-9367) jpv@cs.vt.edu

Office Hours: Mon 1pm-3pm, Tue Wed Thu 11am-12noon, and by appointment

GTAs:	Brandon Berry	brberry@vt.edu	Hours to be announced
	Kiran Kumar Indukuri	kindukur@vt.edu	Hours to be announced

Course Description: This course extends the concepts of primitive data types by teaching the student a classical set of data structures that pervades both the theoretical and practical domains of computer science. Topics discussed include lists, queues, stacks, trees, data storage, file system organization, and access methods.

Prerequisites: CS 2704, CS 2204, and Math 2534 or Math 3034. Computer Science majors and minors *must* have completed the CS prerequisites with a final grade of C or better. CPE majors must have completed the CS prerequisites or their equivalents with C- or better.

Textbook and Course Notes: *A Practical Introduction to Data Structures and Algorithm Analysis 2nd Ed*, by Clifford A. Shaffer, Prentice-Hall 2001. Course notes are available at A1 Copies, University Mall.

Course Web Site: (http://courses.cs.vt.edu/~cs2604/) The course web site will include copies of the syllabus (this document), additional 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	45%
Homework	10%
Pop Quizzes	10%
Midterm Exam	15%
Final Exam	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 Mandrake Linux. 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 electronically, using the Curator System. See the Curator Project Page (http://www.cs.vt.edu/curator/) for details and software; in particular, the *Student Guide to the Curator* contains answers to most of the questions students

have about the Curator system as well as information on how the Honor Code applies when using the Curator.

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. Each project specification will include explicit guidelines that you will be expected to follow, in addition to the general Software Engineering principles discussed in class. The Computer Science Department Documentation Standards, described in *Elements of Programming Style*, will be enforced on all programming assignments. A copy of this document is also available from the course web site.

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

Late Submissions: Programming assignments and homework may be submitted up to two days after the due date. No submissions will be accepted beyond this two-day limit. Late work will receive a 20% deduction, regardless of whether it is one or two days late, unless otherwise specified. 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: There will be at least one quiz per week. The quizzes will be unannounced and may occur at any time during the class meeting. The lowest quiz grade will be cancelled when computing your final grade. 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.

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.