The Old Dominion Honor Code is very important. Please obey all rules and regulations. Please do not be afraid to assist and learn from each other. But, you must have personally written ALL code submitted for evaluation. Sophisticated software will be used to check for “borrowed” code. All students are expected to use standard security protocols on their university directories.

This course explores data structures, algorithms for manipulating them, and the practical problems of implementing those structures in real programming languages and environments. Heavy emphasis is placed upon the analysis of algorithms to characterize their worst and average case requirements for running time and memory.

Late work will be assessed a 15% penalty per day each day for 3 days after that the work will receive a mark of 0.

Grading Criteria
Assignments and Quizzes: 40%
Midterm Examination: 20%
Final Examination: 20%

Prerequisites will be strictly enforced
CS 250, Problem Solving and Programming, CS 252, Introduction to Unix for Programmers
MATH 163, Pre-Calculus II

For your convenience the link to CS252 is included here:
CS 252

Detailed Topics List
Brief review of classes
Objects
Brief review of classes
Professor Zeil’s Design Checklist
The Link List revisited
Implementing the Linked List ADT using the STL
Algorithms – best, worst, and average case big O analysis.
Overview of various data structures
trees
queues
priority queues
stacks
sets and multiset
vectors
maps and multimaps
graphs