

COMP 121: Data structures

Time/ Location. Tu Th 12:30 – 1:45. (MWF 4:30 – 5:20). SN 014

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Course Goal. To provide knowledge of, and experience in implementing, several useful *data structures* and associated *algorithms*.

Objectives. During this course, you will

- Gain experience in object-oriented C++ program development in a Unix environment
- Learn how the choice of data structures and algorithm design methods impacts the performance of programs
- Learn object-oriented design principles
- Study specific data structures such as linear lists, stacks, queues, hash tables, binary trees, heaps, binary search trees, and graphs

Prerequisite. Foundations of Programming (Comp 114). You must drop the course if you do not have the prerequisite.

Text. The required course text is: *Mark Allen Weiss, Data structures & algorithm analysis in C++*. Addison Wesley. There are two recommended texts – one each for Unix and C++

Grading. Grades will be based on several programming assignments (25% of your grade), two in-class exams (30%), a final examination (30%), and several unannounced quizzes in class (15%). I reserve the right to change the method of assigning grades.

Programs. Barring documented tragedy, *I will not accept late programs*. You are not permitted to work in groups – all your work must be your own, and you must attest to this in a signed comment enclosed with each program submission.

Special needs. If you are entitled to extra accommodation for any reason (such as a disability), we will make every reasonable attempt to accommodate you. However, *it is your responsibility to discuss this with the instructor during the first week of the course*.

Course Information. Latest organizational information concerning this course is available off the WWW, at the following URL:

<http://www.cs.unc.edu/~baruah/Teaching/2002s>

It is your responsibility to check this URL frequently.