Course Content
This is the third course for students with a serious interest in Computer Science, primarily Computer Science majors and minors. You will study functional decomposition and how it complements the object-oriented design techniques you studied in the previous two courses. You will learn the data structures that are most fundamental to our discipline and analyze various implementations of them. Finally you will add a new programming language to your personal toolbox.

Prerequisites  (Minimum grades of C are required in all)
810:061  810:062  Computer Science I and II
810:080  Discrete Structures

Required Texts  (see my home page for textbook error corrections)

Equipment
USB Memory stick (at least 128 Mb) for use in the lab.

Written Quizzes
I will give a short quiz every Monday. You may use any handwritten notes to help you answer the quiz questions. You may not use any books, old quizzes, class handouts, photocopies, or printouts. Many of the quiz questions will come from the questions assigned from the textbooks. Be sure to do the reading and write your answers to the assigned questions in your notebook.

Final Exam
A comprehensive final exam for this course will be given at 10:00 - 11:50am on Monday December 10. As with the quizzes, you may use any handwritten notes. You may not use any books, old quizzes, class handouts, photocopies, or printouts.

Electronic Devices in the Classroom
Cell phones, pagers and PDA's may not be used during class. Use of personal laptops in class is not permitted. This is due to past problems with people using laptops in class to email, chat, IM, browse, play games, work on assignments for other classes, display images/videos, etc. These activities are incompatible with a college classroom and create a distraction to neighbors and people seated in rows further back. As a result, the UNI Faculty Senate has established a policy that laptops may not be used without instructor consent.
Laboratories

The weekly laboratory portion of this course provides hands-on experience with the theory and concepts presented in the lecture and textbook. Each laboratory consists of three parts:

Prelab
Due in the first ten minutes of your next scheduled Thursday laboratory meeting. Each Prelab prepares you for the exercises that you will complete in your laboratory session. Not accepted late; be sure to show up to your laboratory meeting on time.

Inlab
Due at the end of each laboratory meeting. Each exercise provides experience with an important concept. Some exercises will be done alone and some with a partner. Several instructors will be present to assist you and to check your work. At least 75% of the inlab assignment must be completed during the scheduled laboratory time to receive credit. The remaining 25% must be brought to me during my office hours sometime on or before the next Wednesday.

Postlab
These programming assignments are usually due before class starts on Friday. I will announce the due date and time when each is distributed. Postlabs will not be accepted after the due date and time.

Postlab assignment grades will be based heavily on your programming style (see Appendix H, Dale, Weems, and McCormick). However, no matter how good the programming style, a Postlab assignment will not receive above a 60% unless it produces a complete set of correct answers.

You must turn in some work for each Postlab assignment. I will lower your final grade in the course by one full letter grade for each assignment that you fail to turn in (by the due date and time) some evidence (printouts or handwritten notes) that you put some effort into the assignment.

Plagiarism

Cooperative study and mutual aid are healthy learning methods and are strongly recommended. Feel free to discuss design and testing issues with your classmates. All work submitted is to be your own — you must write your own program code. Plagiarism is copying or using someone's work or allowing someone to copy or use your work. A program that shows evidence of plagiarism will receive a grade of 0, the course grade will be lowered one full letter grade, and a letter sent to the Department Head and the Vice President for Academic Affairs. A second instance of plagiarism will result in a grade of F in the course. See http://www.uni.edu/pres/policies/301.shtml for more details on UNI's plagiarism policies.

Grading

You should save all the files you used in Inlabs and Postlabs until you receive your final grade.

The final grade will be computed as follows:

- Prelabs & Inlabs: 10%
- Postlabs: 20%
- Written Quizzes: 50%
- Final Exam: 20%

For the amount of effort required, the Postlab grade contributes only slightly toward your final grade. But, at my discretion, I may raise your final grade if your assignments are consistently excellent in quality or lower your final grade if they are poor. Programming assignments are important to learning data structures. Do not expect to receive a final grade that is much higher than your Postlab average.

"The Americans with Disabilities Act of 1990 (ADA) provides protection from illegal discrimination for qualified individuals with disabilities. Students requesting instructional accommodations due to disabilities must arrange for such accommodation through the Office of Disability Services. The ODS is located at: 213 Student Services Center, and the phone number is: 273-2676."