

Syllabus for CISC 2200
Data Structure
Fall 2009

Lecture: TF 2:30–3:45, KE-218

Lecturer: Dr. Xiaolan (Ellen) Zhang

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Office Hours: Tuesday, Thursday, Friday 1:30-2:30 pm, and by appointment

Course Description: An introduction to the fundamental tools of program design, including data abstraction and modular design. Extensive treatment of implementations of abstract data types (including stacks, queues, trees, tables, and graphs) using dynamic memory allocation and linked structures. An introduction to recursion and algorithm analysis in the context of sorting and searching.

Prerequisite: CISC1600 (CS1), familiarity of C/C++ language.

Objectives: To learn a procedure-oriented language such as C++; program design techniques; data structures (linked lists, stacks, sets, trees, graphs); algorithms (sorting, searching, etc.) and their analysis.

Outcomes: By the end of the course, the student will be reasonably proficient in the C++ language. The acquisition of this skill is secondary to the development of an understanding of problem solving that emphasizes the creation and utilization of reusable software tools, use of good engineering principles, a knowledge of common and classic data structures, and a basic understanding of the principles involved in comparing and analyzing algorithms.

Textbook: C++ Plus Data Structure, Nell Dale. 4th ed., Jones and Bartlett Publishers, Inc, 2007

Grading:

Written assignments	1-2	10%
Computer projects	6	45%
Midterm Exam	1/2 of semester	20%
Final Exam	after last class	20%
Quiz & Attendance	in class	5%

Quizzes: When it is unclear to the instructor how well the class has mastered a topic, short quizzes will be given. The quizzes function as diagnostic tools and should be completed to the best of one's abilities. However, the absolute grade one receives on the quiz will not directly affect the person's grade. An exception to this rule occurs if the student receives a 0 due to an unexcused absence (see section on absences above).

Resources:

- Website: all course materials and handouts will be made available at the course website: <http://storm.cis.fordham.edu/~zhang/CISC2200/index.html>
- CIS Dept. Computer Labs JMH 330 & JMH 331

Policies:

- Class attendance is necessary. Attendance will be taken and unexcused absences will affect your grade.
- All assignments, quizzes and exams must be completed on time.
- All the work you submit should be your own work. Copying of homework, or exams or "teamwork" on an assignment is not permitted. You can discuss with other students about the assignments, but the work must be your own. This means that you should write and test your own program. If you're having trouble with an assignment or if you're having trouble meeting a deadline, talk to the instructor.
- No incomplete is given for this course.