Brief Syllabus of COSC 4307-01, Fall 2004

Compiler Construction

TTh 12:30 ~ 1:45 PM, Maes 109

Instructor: Dr. Chung-Chih Li
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Office Hours: MWF 10:00 ~ 11:00 AM

Topics:

Major components of modern compilers: Scanner, Parser, Intermediate Code Generator, Optimizer, Code Generator. Also, we will study Regular Expressions, Context-free Languages, and Context-Sensitive Languages that play indispensable roles in the construction of compilers. Intermediate Representations, Data-Flow Analysis, and some scheduling problems will also be introduced in some detailed.

Prerequisites:

Data Structures, mature programming skill.

Textbooks:

Engineering a Compiler, by Keith D. Cooper and Linda Torczon,Morgan Kaufmann Publishing, 2004.

References:

1. Compilers: Principles, Techniques, and Tools, by Alfred Aho, Ravi Sethi, and Jeffrey Ullman, Addison Wesley, 1988.
2. Crafting a Compiler with C++, by Charles N.Fischer, et al, Benjamin/Cummings, 1996

Tests: (300 points)

Tow midterms and one final, 100 point for each.

Programming Assignments: (250 ~ 300 points)

About 3 or 4 programming assignments will be given. The weight of each program depends on its difficulty.

Attendance and Pop quizzes: (100 points)

Attendance and pop quizzes will be taken and given impulsively.

Grading Policy:

At least 650 points will be given. The grade is based on the following scheme.

Points	Grade	
540 ~ 600	A	Excellent
420 ~ 539	B	Good
300 ~ 419	C	Satisfactory
200 ~ 299	D	Passing
0 ~ 199	F	Failure