

Computer Engineering 175

Introduction to Formal Language Theory and Compiler Construction

Winter 2005
Mondays, Wednesdays, and Fridays
10:30 am – 11:35 am
ENGR 106

Instructor

Instructor: Darren Atkinson
Office: ENGR 245
Office hours: Mondays, Wednesdays, and Fridays, 9:45 am – 10:30 am and 2:15 pm – 3:00 pm
E-mail: datkinson@scu.edu
Web page: <http://www.cse.scu.edu/~atkinson/teaching/175>

Textbooks

Required: Aho, Sethi, and Ullman, *Compilers: Principles, Techniques, and Tools*, Addison-Wesley, 1986.
Recommended: Mason, Levine, and Brown, *lex & yacc*, 2nd edition, O'Reilly, 1992.

Teaching Assistant

Teaching assistant: Munawer Saeed
Lab hours: Tuesdays, 2:30 pm – 5:00 pm and Fridays, 2:15 pm – 5:00 pm
E-mail: munawer22@yahoo.com

Grading

Midterm exam: 25%
Final exam: 35%
Project: 40%

Overview

This course will discuss the theory and practice of building a compiler. The exams will mostly cover the theoretical aspects of formal languages and compiler design. The project will require you to build a simple compiler for a subset of the C language. You will implement the project in either the C or C++ programming language. All work must be done individually. The project will be delivered and graded in stages: lexical analysis, syntax analysis, semantic analysis (scoping and type checking), and code generation (function calls and statements).