

King Fahd University of Petroleum & Minerals

Information & Computer Science Department

ICS-412: Compiler Construction (Spring 042)

Course Instructor: Mr. Faisal Alvi
Office Location: Building 23 - Room 080
Office Phone#: 860-2483
(Tentative) Office Hours: SUMTW 1100-1150am
(Also by appointment)
email: alvi@ccse.kfupm.edu.sa
Course Website: <http://www.ccse.kfupm.edu.sa/~alvi/ICS412042>

Catalog Description: Compiler techniques and methodology. Organization of compilers. Lexical and syntax analysis. Parsing techniques. Object code generation and optimization, detection and recovery from errors. Contrast between compilers and interpreters.

Course Textbook: [Compiler Construction: Principles and Practice](#)
Author: Kenneth C. Louden
Publisher: PWS Publishing

Grading Policy:

Programming Problems	20%	
Quizzes	20%	
Midterm	30%	(Thursday, April 21 st 2005)
Final	30%	(Comprehensive)

Topics to be covered (tentative):

Weeks	Topics
1	Chapter 1: Introduction
2 - 3	Chapter 2: Scanning
4	Chapter 3: Context-Free Grammars and Parsing
5	Chapter 4: Top-down Parsing
6 - 7	Chapter 5: Bottom Up Parsing
8 - 9	Chapter 6: Semantic Analysis
10 - 11	Chapter 7: Runtime Environments
12 - 14	Chapter 8: Code Generation
15	CC-Kits: SableCC and/or ANTLR

Guidelines for the Course:

1. This course is about compilers. In addition to theoretical principles, the course consists of a good number of programming exercises. For this course our programming language of choice will be “C”, with occasional exercises in Java.
2. The course website is at: <http://www.ccse.kfupm.edu.sa/~alvi/ICS412042>. Please keep checking the website for announcements, notes, etc.
3. No makeup quizzes/exams will be given.
4. Exceeding nine absences will result in a “DN” grade.

Best wishes for a productive semester.