CS 3723 Programming Languages Fall 2009

Class homepage: `www.cs.utsa.eda/~qingyi/cs3723`
Class schedule: MWF, 9:00-9:50am SB1.02.08
Recitation schedule: M: 10:00-10:50am SB3.02.02
Final Exam Schedule: Dec 15(Tue) 7:30-10:00am

Instructor: Qing Yi (`qingyi@cs.utsa.edu`)
Office: SB 4.01.30
Office Hours: MW:11am-12pm; by appointment
Office Phone: 458-5671

Textbook

Concepts in Programming Languages, by John Mitchell, Cambridge University Press

Reference books

The Little Schemer, by Daniel P. Friedman and Matthias Felleisen, the MIT Press.
Elements of ML Programming, 2nd Edition (ML97) by Jeffrey D. Ullman, Prentice-Hall.
The C++ Programming Language, by Bjarne Stroustrup, Addison Wesley.

Overview

We will study the basic concepts and design principles of general-purpose programming languages. Topics include foundations of computation theory, syntax and semantics of languages, and the functional, imperative and object-oriented programming paradigms. We will study why languages are designed the way they are and how to effectively use different language features to implement various algorithms and data structures.

Class Objective

Understand the programming techniques associated with various language features and how to use them in problem solving and software development.

Prerequisites

CS 2213 (advanced programming) and CS 3233 (discrete mathematics). You need to be familiar with both Java and C to be ready to study new languages such as Scheme, ML, and C++.

Grading

Exams (quizzes, midterms and final): 50%;
Homeworks and projects: 30%;
Recitations and class participation: 20%.

Homeworks or projects will be assigned on a weekly basis. Late homework submission will be subjected to penalty points at the instructor's discretion. No late homework will be accepted after the solution is given.

Attendance

You are responsible for all presented materials and assigned readings in class. Class attendence will be taken and will count towards your final grade.

Collaboration Policy

You are expected to work on homeworks and projects individually. It is acceptable to ask others (TA, the instructor, or your classmates) for hints and

debugging help, and encouraged to discuss general problem-solving strategies. However, you must work on your assignments independently and must indicate in your assignments any assistance you have received. Any assistance received that is not given proper citation may be considered cheating. In any event, you are responsible for understanding and being able to explain all statements in your homework and exam solutions.

Email Policy

You may redirect class-related questions via email to the instructor or the TA. Always expect a response period (1-24 hours on workdays) before your question gets answered. Last minute questions may not get answered in time before the homework/project is due.

Extra Credit

Over the course of the semester, extra-credit assignments may be given to help you improve your grade. /*(e.g., write a survey about five different programming languages).*/ These extra-credit assignments will count towards your final grade in various ways as indicated in the assignments.

If you are interested in undertaking additional projects or papers (aside from the ones already given), consult with the instructor during office hours.