CS 321
Programming Languages and Compilers

0. Course Organization

Personnel

- **Professor: David Padua**
  3318 Digital Computer Lab; phone: 333-4223
  office hours: 9:15-10:00 TuTh.
- **Assistant: Sheila Clark**
  sd-clark@cs.uiuc.edu
  3316 Digital Computer Lab; phone: 244-0056

Personnel (Cont.)

TA	Office hours	Office Number
Mattox Beckman beckman@cs.uiuc.edu		1231 DCL
Ashish Agarwal		1231 DCL
Mark Peterson		1231 DCL

Text

- **Required:**
  - **Programming Language Pragmatics**
    by Michael Scott
    Morgan Kaufmann

- **(Highly) Recommended:**
  - **Compilers. Principles, Techniques, and Tools (a.k.a. "The Dragon Book")**
    By Alfred Aho, Ravi Sethi, Jeffrey Ullman
    Addison Wesley

- Not all material will be in the textbooks. Transparencies complement the textbook.

Web Page

- **The class web site is at:**
  http://polaris.cs.uiuc.edu/~padua/cs321
- **You are expected to check the web site *frequently*. Contents include:**
  - **important announcements;**
  - **these PowerPoint slides in pdf format;**
  - **reading assignments;**
  - **links to helpful material;**
  - **assignments; and**
  - **Solutions to exercises;**
- **Grades will be e-mailed**

Prerequisites

- **CS 225 -- Data Structures -- essential.**
- **CS 231 or CS 232 or ECE 290 or ECE 291 -- architecture and assembly language programming -- essential.**
- **By implication, CS 125 -- introductory experience with Java or C++. Knowledge of merely C or Pascal is somewhat inadequate; knowledge of merely Basic or VB is woefully inadequate.**
- **By implication, CS 173 -- discrete mathematics -- *absolutely essential*.**

Grading

- **There will be one midterm exam, 5 MPs and two problem sets.**
- **Compiler (first three/four) MPs should be written in C++.**
- **Percentages:**

midterm (Thursday, March 1):	**25%**
final exam:	**40%**
assignments:	**35%**

Grading

- **You are expected to do your own work.**
- **Graduate students and undergraduate students will be graded on separate scales.**
- **1-unit graduate students will do a (substantial) extra project [25% of the final grade]. Details of the project will be available on March 6.**

Goals of CS321

- **To understand programming language implementation:**
  - **Compilers**
  - **Interpreters**
  - **Run-time systems**
- **To gain a deeper understanding of the object-oriented, functional, and logic programming paradigms.**

Goals of CS321

- **To understand better those languages that you've been using.**
- **To increase your "vocabulary" of programming constructs.**
- **To help you to write better programs.**
- **To allow you to choose appropriate programming languages.**
- **To ease your learning of new programming languages.**
- **To familiarize you with design issues for programming languages.**