CSE 262. Programming Languages

Fall 2003

Professor Jeff Heflin

Course Description:

This course will cover the fundamental concepts of programming languages. We will discuss design issues of various language constructs, examine the design choices in some common languages, and critically compare design alternatives. When you complete this course, you will not necessarily be an expert in any new languages, but you should have the knowledge needed to choose the best language for any programming task and to more easily learn new languages independently.

Course Web Page:

http://www.cse.lehigh.edu/~heflin/courses/proglang/

Prerequisites:

CSE 17. Structured Programming and Data Structures

Time and Location:

MWF 10:10 - 11am, Packard Lab 258

Textbook:

Sebesta, Robert W. Concepts of Programming Languages (*sixth edition*). Addison Wesley, Boston, MA, 2003. ISBN 0-321-19362-8

| Instructor | Teaching Assistant |
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Name:Jeff HeflinAbir QasemE-mail:heflin@cse.lehigh.eduabq2@lehigh.eduOffice:Packard Lab 330Packard Lab 6th Floor

Office Hours: Tues. 10-11am, Fri.11:10am-12pm, Mon. 1-2:30pm, Wed. 1-3pm

and by appointment

Phone: 610-758-6533

Grading:

Homework 20% Programming Assignments 30% Midterm 20% Final 30%

Homework assignments will be graded primarily for completeness, but selected problems will be graded for correctness.

Late Work Policy:

Late work will be docked one letter grade (10% of its total value) for each day that it is late. No work will be accepted more than five days late. Exceptions will only be granted if an extenuating circumstance can be proven to the instructor's satisfaction.

Academic Integrity:

All graded work is expected to be your own, unless the instructor has authorized collaboration in writing. In particular, you are not allowed to ask anyone but the instructor or TA for help with your homework or programming assignments. However, you are free to discuss the topics and concepts of the course with your classmates, as long as you do not discuss the specifics of any assignment. Any violation of this policy could result in failure of the course.

Schedule:

This class schedule is only a rough guideline and may change depending on the pace at which we complete the material. All reading, homework and programming assignments will be announced both in class and on the course web page.

| Week of | Topic | Reading |
|---------|---|--------------|
| 8/25 | Introduction | Ch. 1,2 |
| 9/1 | Describing syntax and semantics | Ch. 3 |
| 9/8 | Names, bindings, type checking and scopes | Ch. 5 |
| 9/15 | Data types | Ch. 6 |
| 9/22 | Expressions and assignment statements | Ch. 7, Ch. 8 |
| | Statement-level control structures | |
| 9/29 | Midterm 10/1 | Ch. 16 |
| | Logic programming | |
| 10/6 | Logic programming (continued) | |
| | Pacing break 10/9-10/10 | |
| 10/13 | Subprograms | Ch. 9 |
| 10/20 | Implementing Subprograms | Ch. 10 |
| 10/27 | Functional programming | Ch. 15 |
| 11/3 | Abstract data types | Ch. 11 |
| 11/10 | Object-oriented programming | Ch. 12 |
| 11/17 | Concurrency | Ch. 13 |
| 11/24 | Thanksgiving break 11/26-11/28 | |
| 12/1 | Exception and event handling | Ch. 14 |