

SYLLABUS CS340

CONCEPTS OF PROGRAMMING LANGUAGES

Instructor: Dr. R.J. Greene

Text: Programming Languages by Pratt and Zelkowitz

Purpose

Concepts of programming languages illustrated through comparison and use of various languages. Formal definition of programming languages; specification of syntax and semantics. Properties of algorithmic languages, data abstraction languages and special purpose languages for list processing and symbol manipulation; run-time representation of program and data structures.

Grading

Programs: 50%

Midterm: 20%

Final: 30%

Course Administration:

This course is a mix of theory and practical experiences. You will need to use several different programming languages during the term. Depending on your situation, you may have to do some programs at Rivier or download a language from the internet or otherwise access a language that you may not currently have on your home computer. Because the course is split between graduates and undergrads, you will study the same topics but to a lesser degree. If you should decide to do the work also assigned to grad students, you will be awarded extra credit.

Both midterm and final will be split into questions for everyone and then questions

For undergrads alone and grads alone.

programming assignments will also be split in this fashion.

Some Advice

1. I encourage you to help one another. By this, I mean share your notes, study together, or if you see a classmate struggling to learn something you have mastered - help that person. What I won't tolerate is submitting other people's work as your own for programs or tests. If I catch you doing that, I will notify the CS Department and you can explain why you are doing this to them. Students in the past caught doing this have been kicked out of class permanently, been dropped a letter grade, or simply flunked. It simply is not worth the risk. Don't do this! Why throw away a reputation and a CS degree just for the chance

to score slightly better on a single test or program?

2. Read the assignments BEFORE class. You can't just 'listen carefully' and expect to understand this topic as you hear it.

3. DO THE SUGGESTED HOMEWORK EVEN IF I DO NOT 'GRADE IT'.

4. Get started on programs early. Everyone's strengths and weaknesses and tolerance for frustration is very different. What might be very tough for you might be trivial for your neighbor and vice versa.

5. You learn programming languages by applying them to solve problems. Talking and thinking about programming languages or reading books about them is a substitute for the real thing - using them. So make every effort to use them even over and above what programs are assigned.

Schedule

class	Chapter	Language
1	1,A.6	Lisp
2	2,A.6	
3	3,A.6	
4	4,A.9	Perl
5	5, A.9, A.4	
6	6 A.4	Fortran
7	7, A.1	
8	Midterm - homework afterwords	A.3, A.12 C++, Smalltalk
9	7, A.12	
10	8, A.2, A.8	(C, Pascal)
11	9	
12	10	
13	11, 12, A.5	(Java)
14	A.11	(PROLOG)
15	Cleanup - Review	
16	Final	