

CS 59100: Object-Oriented Languages and Systems

Spring 2009 Syllabus

Meeting Times: T-Th, 2:30-3:45pm, LGRT 1334

Instructor: Yannis Smaragdakis, CS 346, 413-577-0233
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Office Hours: by appointment (but I'm usually in the office late afternoon/early evening)

Prerequisites: You should have knowledge of programming languages equivalent to an undergraduate PL (survey) course and fluency in at least one OO language.

Grading: 50% exams (20%+30% or 15%+15%+20%)
30% homeworks
10% presentation or larger HW (depending on schedule)
10% class participation

Other Resources:

Web page:

<http://www-edlab.cs.umass.edu/cs59100/>

Course Outline:

The course will cover an extensive sample of work from the Object-Oriented Systems and Languages literature—mostly the OOPSLA and ECOOP conferences. Areas to cover include:

Introduction, contrast of language features in OO languages

Design Patterns—a critical view and analysis

Aspect-Oriented Programming

Language implementation issues: efficient dynamic dispatch, multiple inheritance and object layout, garbage collection for Java

OO Type Systems: parameterization mechanisms for Java, virtual types, module systems

Reading Material:

There is no textbook for this course. I will use papers from the literature and I will pass out my notes.

Exams: All exams are closed-books, closed-notes.
Midterm date(s): TBD (make sure you don't miss announcement!)
Final Exam: in regular exam period

Homework and Assignment Due Times:

Non-programming homeworks are due by class time on the due date (either by email before class or as hardcopy in class). Programming homeworks (by email) are due by midnight (11:59pm) of the due date.