

UNIVERSITY OF CALIFORNIA
Department of Electrical Engineering
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Computer Science Division

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Fall 2005

Section Information: CS 164 Programming Languages and Compilers

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We need experience and taste to choose the more suitable notation as we need experience and taste to choose more suitable words. ... At any rate, we should choose our notation carefully, and have *some good reason* for our choice.

– George Polya

Language shapes the way we think, and determines what we can think about.

– Benjamin Whorf

A good notation has a subtlety and suggestiveness which at times makes it almost seem like a live teacher.

– Bertrand Russell

Welcome to CS 164!

How many programming languages do you use? You have all written programs in at least two languages (Scheme and some C-family language); you've probably also read web pages written in HTML, printed PostScript documents, and interacted with UNIX machines through a shell language. Languages are fundamental tools in a programmer's toolkit, and a good choice of languages can help make difficult problems tractable and tedious problems automatic. Beyond that, many common software design tasks – designing a consistent library interface, building a network protocol, or building a configuration file format – are language design problems in disguise. I enjoy knowing about language translators and interpreters both because it helps me solve problems and because I think the ideas involved are fun; I hope that by December, you will feel the same.

Section organization

This is a discussion section; therefore, we will have discussions! I will not make this another hour of lecture, though I may occasionally give *brief* tutorials on specific topics related to the project. Read ahead, think about the material, and come with questions; it will make discussions more fun for us all. To help get us started, I will give you a question to think about at the end of each section meeting; we'll discuss possible responses at the start of the next meeting. You aren't required to answer these questions, but thinking about the problems should help you with your exams and projects; and since you'll be there for section anyway, why not take time to think about the questions and make our discussion interesting?

Depending how many written assignments there are, between 5% and 20% of your total grade will depend on section activities. Of these points, half will come from quizzes, which I will give occasionally to check attendance and to see where people are most confused. If you know you'll be unable to attend discussion, send me e-mail or (better) come to office hours. The other half of your section grade will come from your "participation," loosely defined as "activities that make the class more interesting for yourself and for others." If you're shy about talking in class, or if you prefer to frame your questions and comments in writing, you can always post your questions and comments to the newsgroup; that counts as participation, too.

Projects and partnerships

You are allowed, though not required, to work with a partner on the programming assignments. I will monitor the health of these partnerships; but to do so, I need your help. *Tell me* who your partners are, and how well or poorly the collaboration is going. If your partnership is failing, let me know; if you have a fantastic partner – one who really helps you understand the material, not one who does all your work for you! – let me know that, too. Once a month, I will schedule ten minute time slots to talk to each team (including teams of one) about the projects, so that I can learn about any technical or interpersonal problems you might have. I may also suggest tips and tricks that will make the project easier for you (though you might already know about these if you come to visit me in office hours).

Office hours and availability

Please come to office hours! If many of you cannot attend at these times, I will change my hours. Whatever hours I pick will be inconvenient for someone, so if you can't make my ordinary hours, send me e-mail to set up another time.

I provide my office location and phone, but I usually prefer e-mail. I will respond to class e-mail and newsgroup postings at least once a day (on weekdays), which should give you plenty of opportunities to ask questions. If a truly urgent question inspires you come by the office, you can see immediately whether or not I'm in: I sit right next to the door of my office, at the desk with all the books. Be courteous to my office mates, and don't pester them if I'm out.