# Syllabus

## General Info

**Course** CS320 Topics in Software Development: Programming Languages
**Instructor** Charilaos Skiadas (skiadas at hanover dot edu)
**Term** Winter 2015-2016
**Office** SCH 121C
**Office Hours** MW 2pm-4pm, R 2pm-3pm, and by appointment.
**Book** Online resources
**Websites** for notes[1].
**Class times** MWRF 1pm-2pm in SCH120.

## Course Description

This course will be on over view of various programming language concepts. Though we will consider two specific programming languages, we will use them as a springboard for the exploration of various design questions regarding programming languages. What is the difference between statically typed and dynamically typed languages? What does mutation offer and what are the drawbacks of introducing it in a language? What elements are essential and what parts are just syntactic conveniences? And so on.

Along the way we will learn two programming languages, OCAML and Racket. Both languages offer programming paradigms that will hopefully be new to you, and these new paradigms can enrich your programming experience in other languages as well. Along the way you will learn how to write clearer programs by regularly reviewing your classmates' code.

We will wrap up the term with a project. More details as the term progresses.

## Course Components

### Reading Notes

On the website you will find a schedule[2] with links to documents for each class day. In those documents you will find notes for the day's lesson, and reading assignments.

### Class Attendance

You are expected to attend every class meeting, including labs. You are only allowed to miss 3 classes without excuse. From that point on, every unexcused absence will

[1] skiadas.github.io/ProgLangCourse/site/
[2] http://skiadas.github.io/ProgLangCourse/site/schedule.html

result in a reduction of your final score by one percentage point, up to a total of 5 points. Excused absences should be arranged in advance, and backed by appropriate documentation. Emergencies will be dealt with on an individual basis. There are very few reasons that would qualify as an excuse for an absence.

### Programming Assignments

There will be regular programming assignments about once per week. You will be expected to submit both a solutions file and a test file. You should make sure to write sufficient tests to ensure your solutions behave as they should. Homework assignments are 30% of your final grade.

### Exams

There will be one midterm on Friday, February 26th and a final during finals week. **You have to be here for the exams**. If you have conflicts with these days, let me know as soon as possible. Do not plan your vacation before you are aware of the finals schedule. In terms of your final grade, the exams you did better on will weigh more.

### Programming Project

There will also be a larger programming project, that we will discuss in more detail later in the term. It will count for 30% of your final grade.

### Getting Help

- You should never hesitate to ask me questions. I will never think any less of anyone for asking a question. Stop by my office hours or just email me your question, which has the great benefit of forcing you to write it down in clear terms, which often helps you understand it better.
- You are allowed, and in fact encouraged, to work together and help each other regarding the notes and the the theory. You can also discuss general questions about the programming assignments. But I expect you to work on the programming assignments on your own.

## Grading

Your final grade depends on class attendance, homework, project, quizzes, midterms and the final, as follows:

| Component | Percent |
|---|---|
| Attendance | 5% |

| Component | Percent |
|---|---|
| Assignments | 30% |
| Project | 30% |
| Midterm | 15% |
| Final | 20% |

This gives a number up to 100, which is then converted to a letter grade based roughly on the following correspondence:

| Letter grade | Percentage Range |
|---|---|
| A, A- | 90%-100% |
| B+, B, B- | 80%-90% |
| C+, C, C- | 70%-80% |
| D+, D, D- | 60%-70% |
| F | 0%-60% |