

CS 5510

Programming Languages

Fall 2015

Instructor: **Matthew Flatt**

Course Details

<http://www.eng.utah.edu/~cs5510/>

Lectures are Online

After today, all slide presentations are online

- Watch the videos before class
- Class is for more examples and homework solutions
 - a.k.a. “recitation”
 - guideline: no new material introduced in class

Programming Language Concepts

This course teaches concepts in two ways:

By implementing **interpreters**

- new concept \Rightarrow new interpreter

By using **Racket** and variants

- we don't assume that you already know Racket

Interpreters

An ***interpreter*** takes a program and produces a result

- DrRacket
- x86 processor
- desktop calculator
- **bash**
- Algebra student

A ***compiler*** takes a program and produces another program

In the terminology of programming languages, someone who translates Chinese to English is a *compiler*, not an *interpreter*.

Racket and `plai`-typed

Lisp ➔ **Scheme** ➔ **Racket**

Racket is

- a programming language
- a family of programming languages
- a language for creating programming languages

... including `plai`-typed

Racket ➔ `plai`-typed ← **ML**

PLAI = *Programming Languages: Application and Interpretation*, the textbook

`plai-typed`

See `quick-ref.rkt`

Homework 0

- Create handin account
- Racket/**plai**-typed warm-up exercises

Due Friday, August 28