CS 5510
Programming Languages

Fall 2013

Instructor: **Matthew Flatt**

Course Details

`http://www.eng.utah.edu/~cs5510/`

Programming Language Concepts

This course teaches concepts in two ways:

By implementing **interpreters**

○ new concept ⇒ 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 30