CS 1410-20 — Object-Oriented Programming

Computer Science I for Hackers

Fall 2011

Instructor: Matthew Flatt
Intro Computer Science Tracks

---

**Fall 2011**

- CS 1400
  - Computing
  - Scratch

---

**Spring 2012**

- CS 1410
  - Language Design
  - Java

---

**Summer 2012**

- CS 2420
  - Data structures
  - Java

---

**no background**

---

**some background**

- CS 1410
  - Language Design
  - Java/ActionScript/Racket

- CS 2420
  - Data structures
  - Java
## CS 1410 & CS 2420 Tracks

### Some Background

<table>
<thead>
<tr>
<th>EAE</th>
<th>Systems</th>
<th>Hardware</th>
</tr>
</thead>
</table>
| **CS 1410-01**  
Language Design  
Java | **CS 1410-10**  
Language Design  
ActionScript | **CS 1410-20**  
Design Language  
Racket  
Java  
Arduino |
| **CS 2420-01**  
Data structs  
Java | **CS 2420-10**  
Data structs  
Java | **CS 2420-20**  
Machine model  
Data structs  
C  
Racket  
Java |
| **CS 2420-01**  
Data structs  
Java | **CS 2420-01**  
Data structs  
Java |
CS 1410 & CS 2420 Tracks

some background

### Fall 2011

- **CS 1410-01**
  - Language Design
  - Java

- **CS 1410-10**
  - Language Design
  - ActionScript

### Spring 2012

- **CS 2420-01**
  - Data structs
  - Java

- **CS 2420-10**
  - Data structs
  - Java

- **CS 2420-20**
  - Machine model
  - Data structs
  - C

### Hardware

- **CS 1410-30**
  - Language Design
  - Arduino

### EAE

- **CS 1410-20**
  - Design Language
  - Racket
    - Java

### Systems

- **CS 1410-20**
  - Design
  - Language
  - Racket
    - Java
Systems
language, networking, OS

Applications

Hardware
Systems Track

**CS 1410-20** — How to design programs

- Racket (Scheme)
- Java

**CS 2420-20** — Building on machines

- C
- Racket
- Java
Course Details

Everything is on the course web page:

http://www.eng.utah.edu/~cs1410-20/

Weekly assignments  45%
  Grading scale: ✓+, ✓, ✓-, 0
Weekly labs  3%
Two midterm exams  15% each
Final exam  22%
Textbook

We’ll start with the **second edition**: http://www.ccs.neu.edu/home/matthias/HtDP2e/index.html

http://htdp.org
DrRacket

```
(re.require 2htdp/image)

;; box : image -> image
;; To frame an image
(define (box i)
  (overlay (rectangle (image-width i)
                    (image-height i)
                    "outline"
                    "black")
           i))

(check-expect (box (U U)) (U U))
```

http://racket-lang.org/
Things You Need to Do

• Read the course syllabus

• Subscribe to cs1410-20@list.eng.utah.edu
  ○ See the course web page for instructions

• Go to lab on Thursday (9:40am, MEB 3225)

• Complete HW 0
  ○ To be added to the schedule page Wednesday
  ○ Maybe mostly in lab