

# Lecture 1

## Introduction

In the beginning...

*CS 241: Foundations of Sequential Programs*  
Winter 2011

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# What's in a name?

Foundations of Sequential Programs

Where do we start?

Assume computers exist.

# About the course

- ▶ Assignments
  - ▶ START EARLY!
  - ▶ Don't fall behind!!!
  - ▶ 11 assignments in total, each with 8 subparts: about 100 things to submit
- ▶ Design choice
- ▶ Outline
- ▶ Notes

# Marmoset

- ▶ Public tests
- ▶ Release tests

# Unix

Your program must run correctly on the `student.cs` environment.

# Purpose of the course

- ▶ To learn (to learn).
- ▶ Meta-thinking.

# Marking

- ▶ Assignments: 25%
- ▶ Midterm: 25% written on Monday, February 28, 7:00-9:00pm
- ▶ Final Exam: 25% written sometime in April

# Personnel

- ▶ Instructor:
- ▶ Tutors:
- ▶ Instructional Support Coordinator:
- ▶ IAs/TAs: run tutorials

# Non-human Resources

# Computers to Programming Languages

What is a computer?

What is a program?

# Binary data

# Machine language

# Assembly language

# Assembler

# Formal languages

# Higher level languages

## Back to Basics: Bits

## Sequence of bits

# Integers

## 2s complement operation and 2s complement representation

What is 1010?

# Characters

# Hexadecimal