

**Industrial and Government Laboratories** 

• The Reeves Electronic Analog Computer is a tried and proven instrument having been in production for nearly two years.

The REAC is meeting the growing need for a reasonably priced, high speed electronic differential analyzer. A large number are being used throughout the country in a wide variety of scientific fields. It has made the mathematical approach to research and engineering problems economically feasible, eliminating old fashioned cut-and-try methods.

REAC users report great savings in time and money in obtaining desired results as compared with their existing hand methods of computation. Costs on the average have shown a 95% reduction and as a result REAC equipment pays for itself in a matter of months.

The REAC is easy to operate and maintain compared with other basic types of high speed computers. Its accuracy, speed and versatility is more than adequate to handle a great proportion of the mathematical analysis work requiring solution by electronic computers.



Write for our booklet RICO-2 which provides a complete description of the REAC equipment.

215 East 91 St., New York 28, N.Y.

# CIS 210: Introduction to Computer Science

Instructor: Michal Young **Graduate Assistants: Emily Schwarz** Mingyao Liu Undergraduate assistants:

Kirsten Dawes, Zhuojun Zhang, Tanner Baldus, Jonathan Eskeldson, Taikun Guo, Adam Zucker, Skyler Berg

## **Obtaining Course Info**

#### Read the class web page:

http://www.cs.uoregon.edu/classes/13F/cis210

All basic class information is there

Follow the "references" link to editor and Python installation instructions.

#### Enroll in Piazza group:

http://piazza.com/uoregon/fall2013/cis210

Announcements, discussion, advice, and useful material will appear there

Keep current! It is your responsibility.



## Why come to class?

Slides will (mostly) be available after class But ...

Lecture is more than reading the slides, and I don't do all the talking.

Observation: People who skip lecture do poorly on assignments and exams



### **Textbook**

# Introduction to Computing Using Python: An Application Development Focus

by Ljubomir Perkovic

Read assigned chapters *before* lecture come to class with questions

**Experiment!** 

try examples from the book, and try variations



## Introduction to Computer Science

Programming is an *important part* of computer science

#### *Important*

It makes everything else possible.

#### But just a part

There is much more to computer science.

"CS may be more than programming, but it is not less than programming."

J. Stearn, letter in CACM 47(9), Sep 2004.



## Programming and CS

Why the CS major starts with programming

Learning to program is just part of CS
But programmability (universality) is the essence

You must understand programming to understand CS

Python is (just) a reasonable example to start with



## Q: What is Programming?

#### A: Solving problems

The computer is a tool.

 A carpenter must know how to use a hammer, but knowing how to use a hammer doesn't make you a carpenter.

A programming language is also a tool.

You will learn Python. You will also learn to program.
 Not the same thing!

Programming is mostly about logical analysis and problem solving



### Goals for CIS 210

#### Learn computer science concepts

Problem solving with computation

#### General programming skills

- includes designing programs to be understood and modified by humans
- includes testing, debugging

#### Expressing programs in the Python language

but the programming concepts apply to other languages



## Labs

Lab attendance is mandatory

It counts toward your grade!

Turn in work or "passphrase" as evidence of attendance

Labs cover material not in lecture

It's your best chance to understand how to solve the homework problems



## **Getting Help**

Labs are excellent opportunities to get help

Instructor and GTFs also hold office hours. We want to see you there!

 But if you skip the lecture, don't ask me to repeat it in office hours. I won't do that.

We also respond to questions on Piazza:

http://piazza.com/uoregon/fall2013/cis210/home and choose Q&A tab

We try to answer quickly, usually within 24 hours (often much faster).

Don't wait to the last minute

If the assignment is due in two days, and you are completely lost, we probably can't help you much.



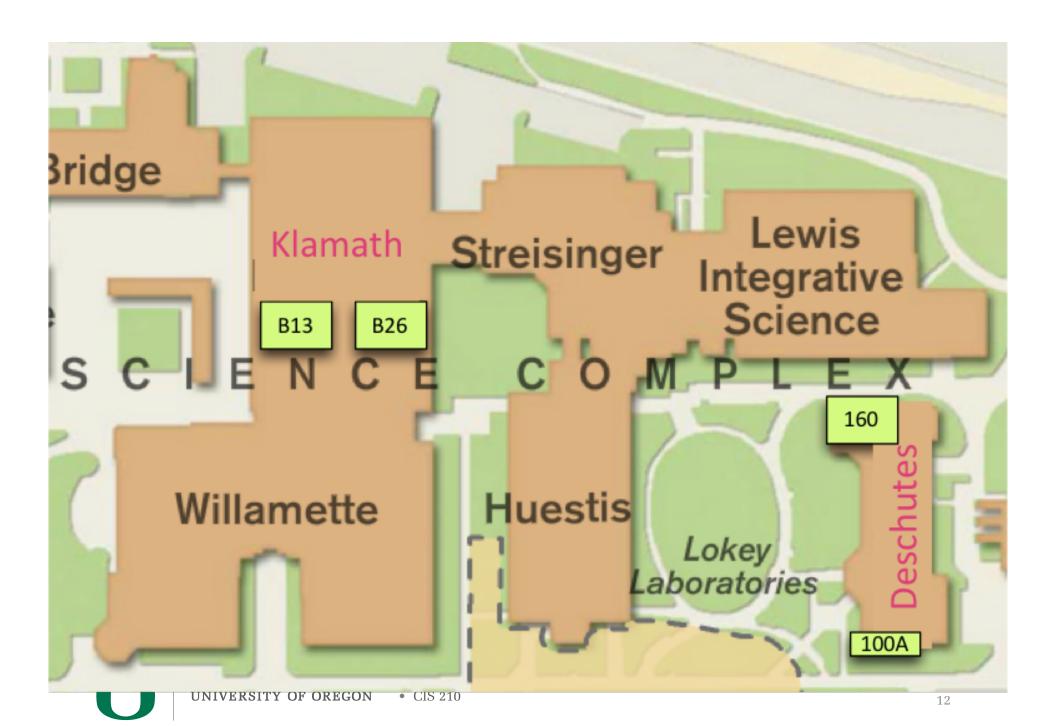
#### Check office hours on the schedule page of the class web site

#### CIS 210 Lecture, Labs, and Help Schedule

	Monday	Tuesday	Wednesday	Thursday	Friday
8:00-8:50					
9:00-9:50		Lab 026 Klamath			
10:00-10:50		Lab 026 Klamath		Mingyao Des 160	
11:00-11:50	Lecture 207 Chapman	Lab 026 Klamath	Lecture 207 Chapman		Lecture 207 Chapman
12:00-12:50		Lab 026 Klamath	Kanika		
13:00-13:50		(last year	Des 100A Mingyao	Kanika Kla B13	Kanika Kla B13
14:00-14:50		version)	20s 100A		Mingyao Kla B13
15:00-15:50	Michal Des 160				Michal Kla B13
16:00-16:50					- Kia bi 3

Office Hours Lab Sections Class Lecture

Des = Deschutes hall (computer science building), lab room 100A and conference room 160 Kla = Klamath hall, lab room B13 (across from class labs in room 026)



# Weekly Rhythm

Saturday, Sunday start next project read

Monday (lecture) this week topic

Friday: project due 5pm
Introduce next topic &
project

Tuesday (lab)

**Thursday** 

Wednesday
warm-up exercise
due 5pm



## Pair Programming

# Pair programming is allowed on some assignments

- Pair programming is done with two people working together at one computer: One driver and one observer. Trade roles often.
  - Pair programming does not mean letting someone else do your assignment. You must understand every bit of it.
- Keep a log of meetings.
- Each partner turns in program listing both authors

Always document contributions of all authors



### Other Collaboration

#### **DO** discuss the problems

Discuss general approaches to solving them. Learn from each other.

If you rely on ideas from someone else, or somewhere else (e.g., a web site), document it in your solution.

#### **DON'T** copy or plagiarize

Write every line of program code yourself.

We can tell. We do enforce UO academic honesty policy.



## First Assignments

First Wednesday Warmup is in Blackboard now

First project posted by tomorrow morning

Due Friday 5pm. Submit files on Blackboard.

