Welcome to "Introduction to Computer Science"

CS 8: Introduction to Computer Science
Lecture #1
Winter 2018

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A Word About Registration for CS8

FOR THOSE OF YOU NOT YET REGISTERED:

- This class is currently **FULL**
- If you are on the waitlist, you will be added automatically as others drop the course
- If you are not on the waitlist, you will not get into this class
- If you are an extension student, please see me after class

Your Instructor

Your instructor: **Ziad Matni** *(zee-ahd mat-knee)*

Email: ***zmatni@cs.ucsb.edu***

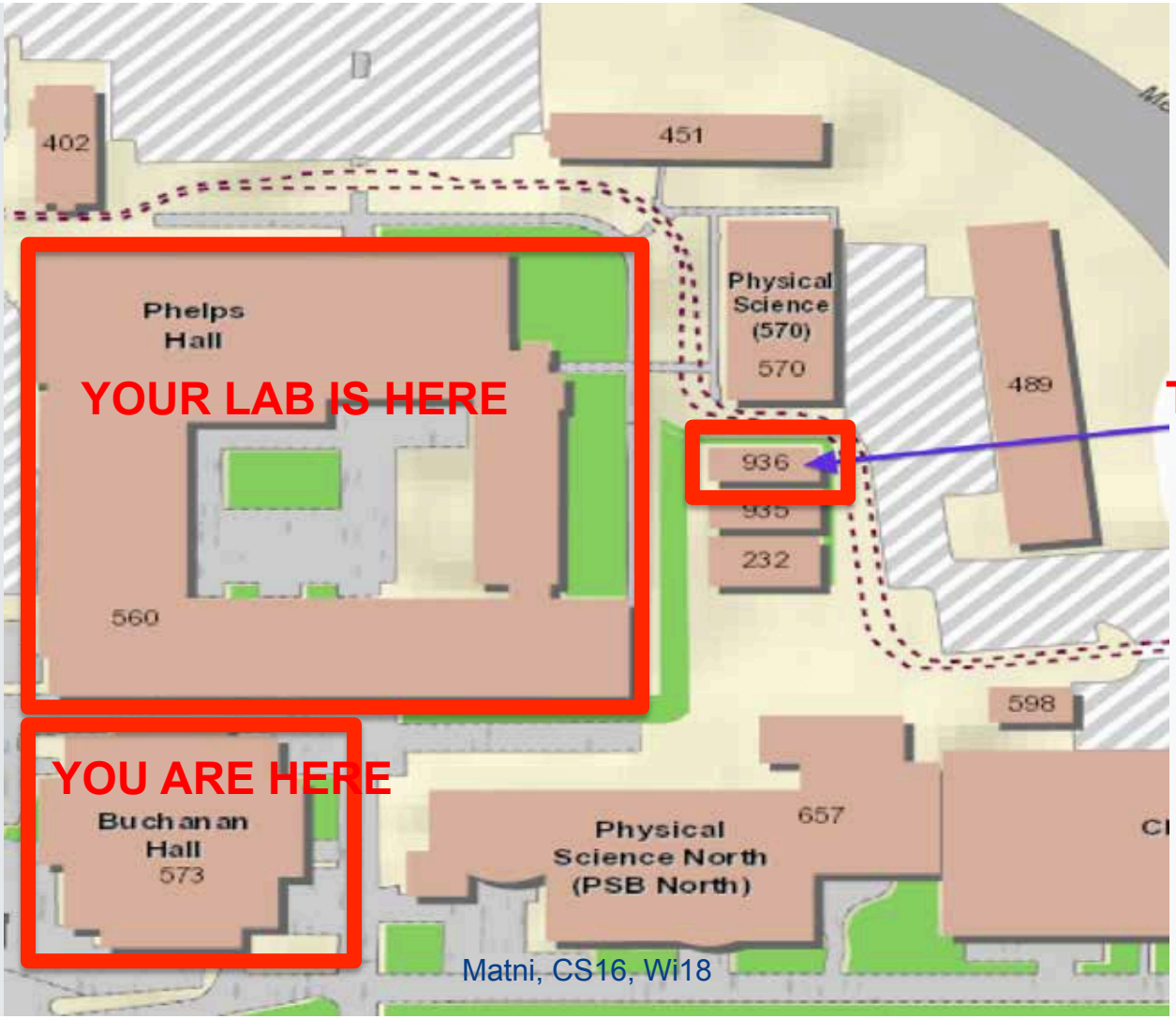
(please put **CS8** at the start of the subject header)

My office hours:
Tuesdays **10:30 AM – 11:30 AM**, at **SMSS 4409**

Your TAs

TA NAME	LAB SECTION	OFFICE HOURS
Yun Zhao	Tue. 1 pm	Tue. 8 – 10 am
Jian Jin	Tue. 2 pm	Tue. 11:30 am – 1:30 pm
Muqsit Nawaz	Tue. 3 pm	Tue. 4 – 6 pm
Shiyu Ji	Tue. 4 pm	Thu. 4 – 6 pm
Vivek Pradhan (Grader)	-	TBD

All labs will take place in **PHELPS 3525**
All TA office hours will take place in **TRAILER 936**


402
451
Phelps Hall
YOUR LAB IS HERE
560
Physical Science (570)
570
489
936
935
232
598
YOU ARE HERE
Buchanan Hall
573
Physical Science North (PSB North)
657
TRAILER 936 (All TA Office Hours)

TRAILER 936

You!

With a show of hands, tell me… how many of you…

A. Are Freshmen? Sophomores? Juniors? Seniors? Other?
B. Are Engineering & CS majors?
C. Are Science (Physics, Chem, Bio, Geog, etc…) majors?
D. Are Math, Stats, ActuarialSci, etc… majors?
E. Are Econ or Psych majors?
F. Are Social Science (Soc, Comm, PoliSci, etc…) majors?
G. Are Humanities (English, languages, history, etc…) majors?
H. Have programmed ***anything*** before? What language?
I. Have used a Linux or UNIX system before?

This Class

- A **beginner's** class in computer science
- Designed for non-majors
  - CS majors welcome to prepare for CS 16

- Through the lens of the ***Python*** programming language
  - More specifically, Python 3 (nothing earlier than ver. 3.4.3)

- We'll discuss both motivations (why? / who cares?)
  and techniques (how do I do that?)

What CS 8 is *Not*

- *Not* for people with zero computer experience
  - Instead start with computer "boot-camp" courses
  - Otherwise you might be frustrated by CS 8's requirements and expectations

- *Not* a comprehensive course in Python either
  - We'll focus on a subset – enough to teach fundamental programming concepts
  - After CS 8, you should be sufficiently trained to learn some advanced Python on your own

About Python

- ***Python is one of the most widely used and in-demand programming languages for both engineering and non-engineering applications***
  - Very popularly used in
    - Dynamic Web Pages, Small Applications, etc…
    - Data Mining, Statistical Analysis, Content Analysis and Text Analysis, etc…
- A gateway programming language
  - Forgiving ***syntax*** and ***form***

…You know you want to program…

- It looks great on your resume!

How Is This Class Taught?

- Every class has a lecture based on the readings

YOU SHOULD DO THE READINGS BEFORE CLASS!!!

- You will be in a lab on Wednesdays

YOU SHOULD READ YOUR LAB ASSIGNMENT BEFORE YOU GO TO LAB!!!

- You have to do a lot of (short) homeworks and (kinda-short) lab assignments

PRACTICE MAKES PERFECT!!!

There's a LOT work to do…

- ~8 Homeworks
- ~8 Lab Assignments
- ~2 Project Assignments
- 1 Midterm Exam
- 1 Final Exam

All of these need regular practice

… and a partridge in a pear tree…

Why All the Work?

- Programming is a **skill**
- Learning how to program requires
  time, ***perseverance***, and ***consistent*** practice
  - Exactly like practicing a musical instrument
  - There's a *science* behind programming,
    but it is also about *technique*
- You learn by **doing** and by getting *"your hands dirty"*

Resources?

~~GauchoSpace~~

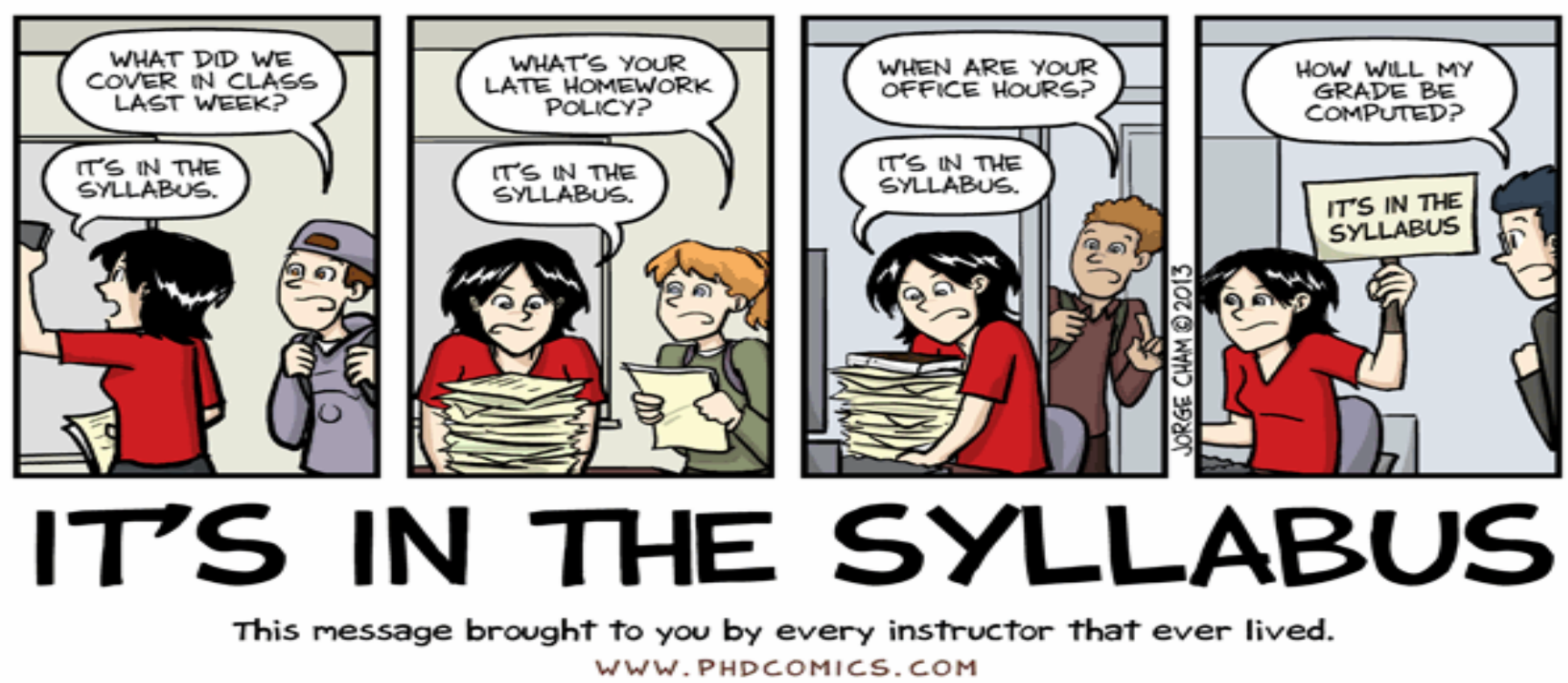
Class webpage:

https://ucsb-cs8-w18-matni.github.io

Piazza discussions/Q&A:

https://piazza.com/ucsb/winter2018/cs8

Just in Case…


WHAT DID WE COVER IN CLASS LAST WEEK?
IT'S IN THE SYLLABUS.
WHAT'S YOUR LATE HOMEWORK POLICY?
IT'S IN THE SYLLABUS.
WHEN ARE YOUR OFFICE HOURS?
IT'S IN THE SYLLABUS.
JORGE CHAM © 2013
HOW WILL MY GRADE BE COMPUTED?
IT'S IN THE SYLLABUS
IT'S IN THE SYLLABUS
This message brought to you by every instructor that ever lived.
WWW.PHDCOMICS.COM

So…
Let's Take A Look At That Syllabus…

Electronic version found at:

http://cs.ucsb.edu/~zmatni/syllabi/CS8W18_syllabus.pdf

Also found on the class webpage

Switching About In The Labs…

… is frowned upon ☹

- Stick to the lab time that you have per your registration
  - The labs are pretty full and at capacity

IF YOU WANT TO SWITCH LAB SECTIONS, YOU MUST:

1. **Find a person in the other lab to switch with you**
2. Get the OK from *BOTH* T.A.s

What YOU have to do
by end of the week

- Log into **Piazza** and have a look around. Sign up for this class' page. Go to:
  https://piazza.com/ucsb/winter18/cs8

- Go to the **class main website** and have a look around. Go to:
  https://ucsb-cs8-w18-matni.github.io/

- Download/print out the homework assignment (**h00**) from the class website
  - This is a "companion-piece" to the first lab
  - It's a very simple, very easy homework.
  - IMPORTANT: Bring the finished hard-copy with you to lab next week.

- Read the lab assignment (**lab00**) – it's on the class website –
  before you go into your lab next Tuesday: BE PREPARED

What YOU have to do ***before Monday***

YOU HAVE ANOTHER LECTURE ON MONDAY!!!

- **Read *at least* the first 4 sections of Chapter 1**
- Confirm that you have access to **Python IDLE**, version 3.x
  - Available for you at CSIL and Collaborate labs too
  - If you want to install on your own computer – go to http://www.python.org/
- Play with Python at every opportunity
  - For instance, try out examples from text and lectures

YOUR TO-DOs

- ❑ Sign up on Piazza
- ❑ Go to the class website
- ❑ Download and print **Homework0**
- ❑ Do **Homework0** (bring to lab on Tuesday)
- ❑ Read **Lab0**
- ❑ Do **Lab0** (on Tuesday in the lab)

- ❑ Solve world hunger
- ❑ Reverse global warming

</LECTURE>