

CS 1110
Introduction to Computing
Using Python

Instructor: Prof. Charles Van Loan

Are You Ready?

Then Let's Get Set.

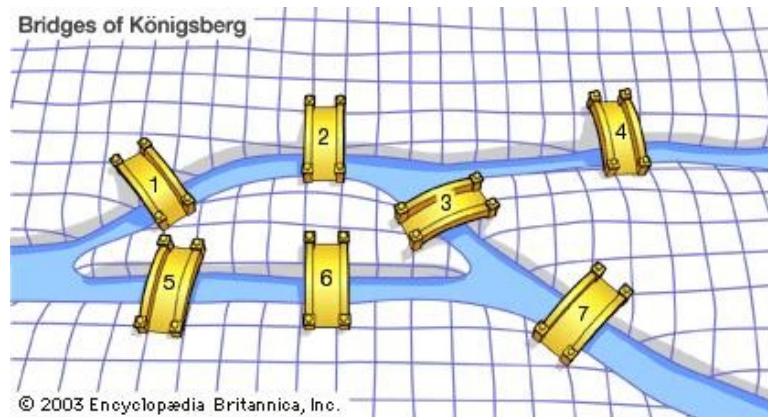
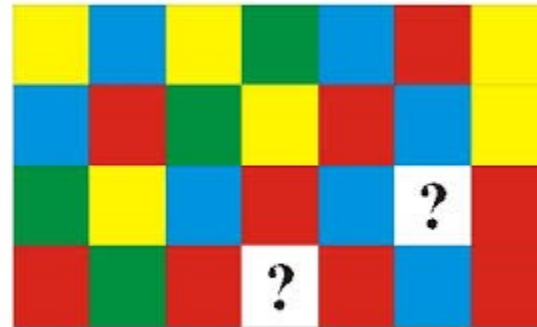
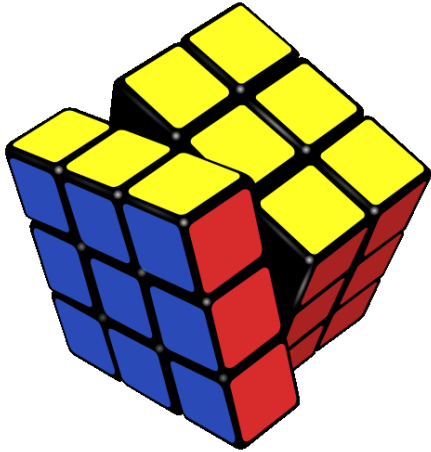
And Then Let's GO!

Ready?

Actually, you are probably more than ready to take CS 1110.

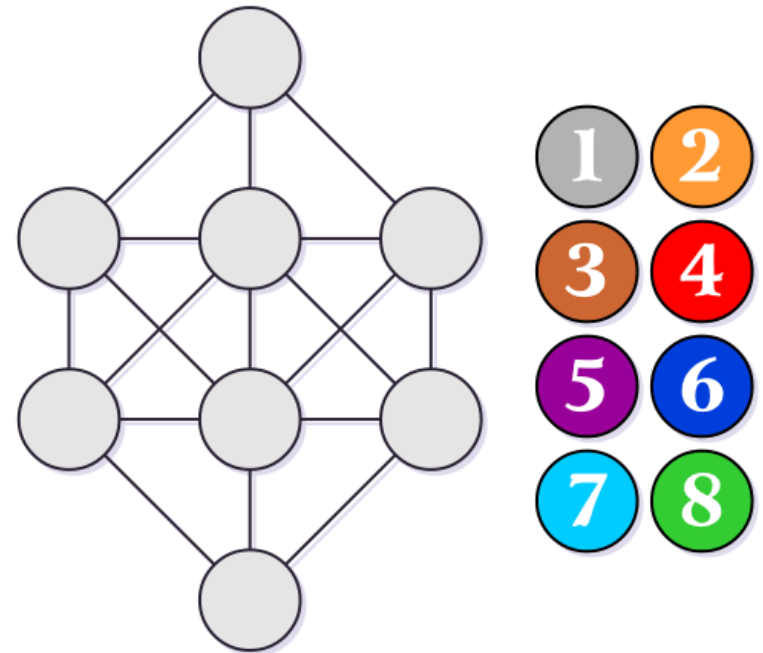
Here is why....

You Like Logic Puzzles



You Like Number Puzzles

8			4		6			7
						4		
	1					6	5	
5		9		3		7	8	
				7				
	4	8		2		1		3
	5	2					9	
		1						
3			9		2			5



You Like Word Puzzles

" K R K T U O B A I K G O J
 " N O T I O
 S K U U X Z O T X O E T B G
 N N O O T
 X K B X O E S E B A U X O
 T O T I N O
 I K U B L ? L O H K O U K A L
 N T S ? S O O N I S
 S K U U X O U B G K Q K N W
 N N O N T

Aligning

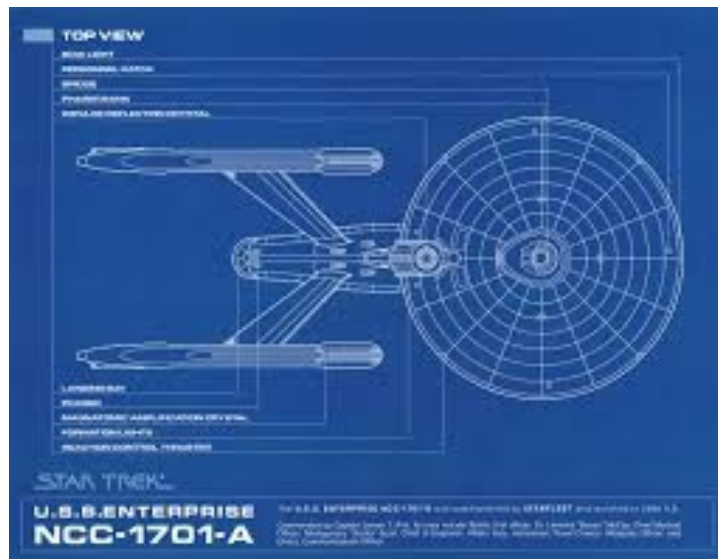
	260	*	260	*	300	*	320
species 1	TCAAAGATTAAGC-CATGCATGCTAAAGT--ACAAGCCCATTA-AG--GTGA-AACC3C3AATGGCTCAITAAA--TCA						
species 2	TCAAAGATTAAGC-CATGCATGCTAAAGT--ACAATCCTCTTGA-GG--GAGA-AACT3C3AAGGGCTCAITAAA--TCA						
species 3	TCAAAGATTAAGC-CATGCATGCTAAAGT--ACAAGCCTCACTA-AG--GTGA-AACC3C3AATGGCTCAITAAA--TCA						
species 4	TCAAAGATTAAGC-CATGCATGCTAAAGT--ACAGNCCG-ATCT-AAG-GCGA-AACC3C3AATGGCTCAITAAA--TCA						
species 5	TCAAAGATTAAGC-CATGCATGCTAAAGT--ACAGGCCG-ATCT-AAG-GCGA-AACC3C3AATGGCTCAITAAA--TCA						
species 6	TCAAAGATTAAGC-CATGCATGCTAAAGT--ACAGGCCG-AACT-AAG-GCGA-AACC3C3AATGGCTCAITAAA--TCA						
species 7	TGGTTGCTCGTTGCTGC-TGCTAAAGT--ACAAGCCG-ATTC-AAG-GCGA-AACC3C3AATGGCTCAITAAA--TCA						
species 8	TCAAAGATTAAGC-CATGCATGCTAAAGT--ACAAGCCG-ATTT-AAG-GCGA-AACC3C3AATGGCTCAITAAA--TCA						
species 9	TCAAAGATTAAGC-CATGCATGCTAAAGT--ACAAGCCG-ATGT-AAG-GTGA-AACC3C3AATGGCTCAITAAA--TCA						
species 10	TCAAAGATTAAGC-CATGCATGCTAAMGT--ACA---CCTCTG--GG--GCGA-AACC3C3AATGGCTCAITAAA--TCA						
species 11	TCAAAGATTAAGC-CATGCATGCTAAAGT--ACAAGCGCTATG--CG--GCGA-AACC3C3AATGGCTCAITAAA--TCA						
species 12	TCAAAGATTAAGC-CATGCATGCTAAAGT--ACAAGCCGCTAGA-CG--GCGA-AACC3C3AATGGCTCAITAAA--TCA						
species 13	TCAAAGATTAAGC-CATGCAGGCTAAAGT--ATAAGCCGAAATA-AA--GTGA-GACC3C3AATGGCTCAITACA--TCA						
species 14	TCAAAGATTAAGC-CATGCAGGCTAAAGT--ACGAGCGGAATA-AAT-GTGA-GACC3C3AATGGCTCAITACA--TCA						
species 15	TCAAAGATTAAGC-CATGCAGGCTAAAGT--ACATGCTCTTATA-TATGGTAA-GACT3C3AATGGCTCAITACA--TCA						
species 16	TCAAAGATTAAGC-CATGCATGCTAAAGT-ACACACCAAATTA-AG-GTGA-AACC3C3AATGGCTCAITAAA--TCA						
species 17	TCAAAGATTAAGC-CATGCATGCTAAAGT--ACAAGCCCTACAA-GG--GTGA-AACC3C3AATGGCTCAITAAA--TCA						
species 18	TCAAAGATTAAGC-CATGCATGCTAAAGT--ACATGCCGCAATTA-AG--GCGA-AACC3C3AATGGCTCAITAAA--TCA						
species 19	TCAAAGATTAAGC-CATGCATGCTAAAGT--ACATGCGGAAATA-AG--GTGA-AACC3C3AATGGCTCAITAAA--TCA						
species 20	TCAAAGATTAAGC-CATGCATGCTAAAGT--ACAGACCTTCATA-CG--GTGA-AACC3C3AATGGCTCAITAAA--TCA						
species 21	TCAAAGATTAAGC-CATGCATGCTAAAGA--TCA-AGCTCCTCT-CG--CGGACA-ACT3C3AATGGCTCAITAAA--TCA						
species 22	TCAAAGATTAAGC-CATGCANGTATCAGT--ACAAGCCTCACTN-AG--GTGA-AACC3C3AATGGCTCAITAAA--TCA						
species 23	TCAAAGATTAAGC-CAACTCATGCTAAAGA--TCATGCCGAAACCAAG--GCGA-AACC3C3AATGGCTCAITAAA--TCA						

(Andy Vierstraete 1999)

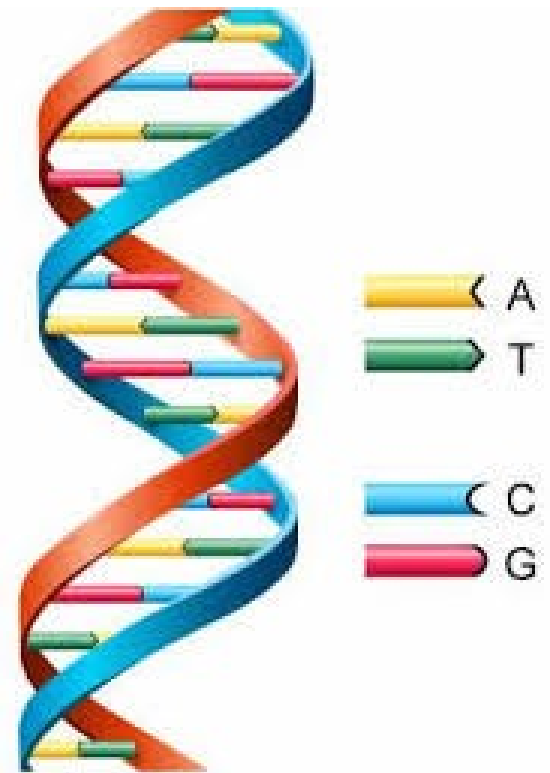
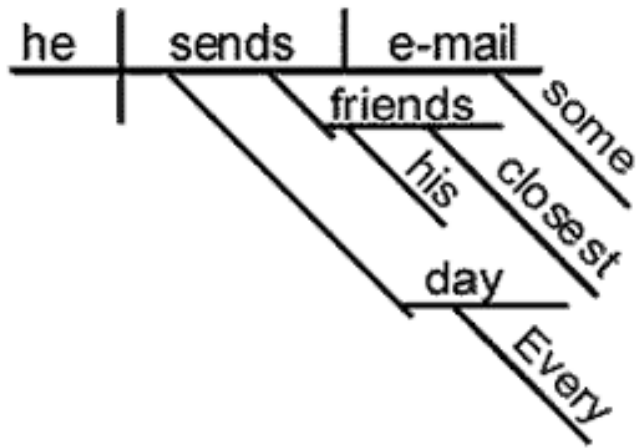
You Practice the Science of Deduction



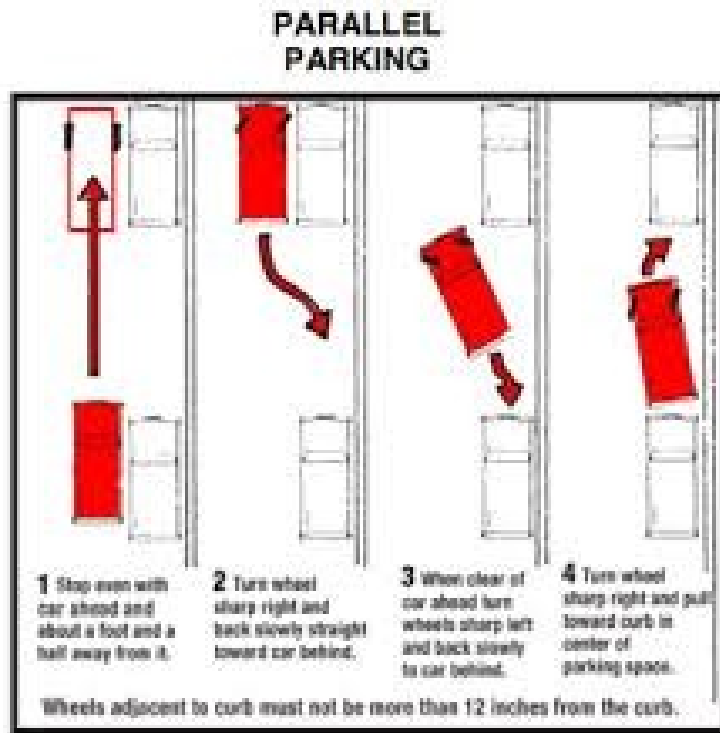
You Like the Idea of Designing and Building



You Have a "Thing" About Encoding Information & Language

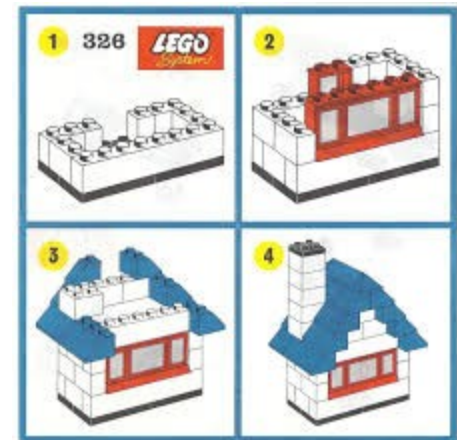
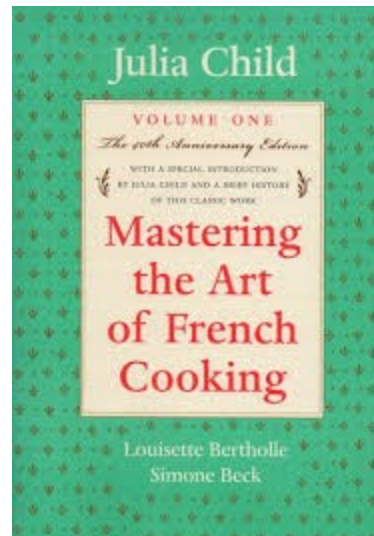


You Have Experience with Step-by-Step Procedures



$$\begin{array}{r} 56 \\ 3 \overline{) 168} \\ \underline{-15} \\ 18 \\ \underline{18} \\ 0 \end{array}$$

$6 \times 3 = 18$



You Had an English Teacher Who Taught You How to Write

An SPSE Essay

Introduction

Outline background and aims

Situation

Background and context for the problem

Problem

What is the problem and its effects?

Solution

Two or more potential solutions

Evaluation

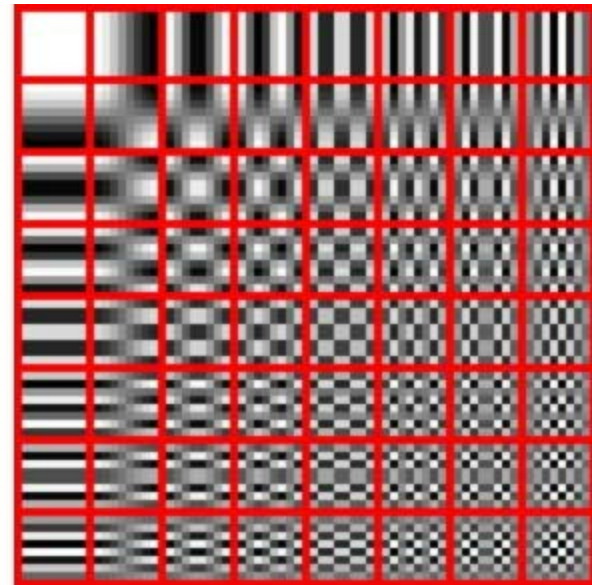
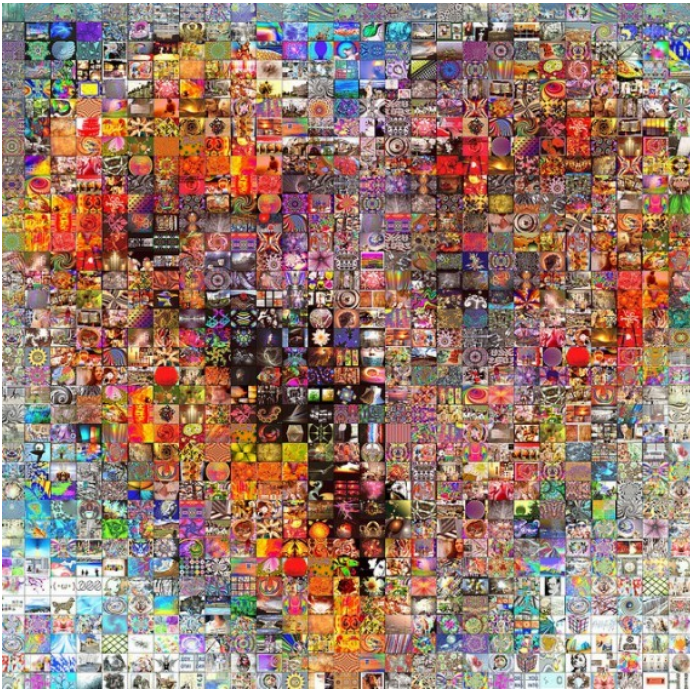
How effective are the solutions?
Which is most effective?

Conclusion

Summarise all main points



You Wonder Why a Picture is Worth 1000 Words

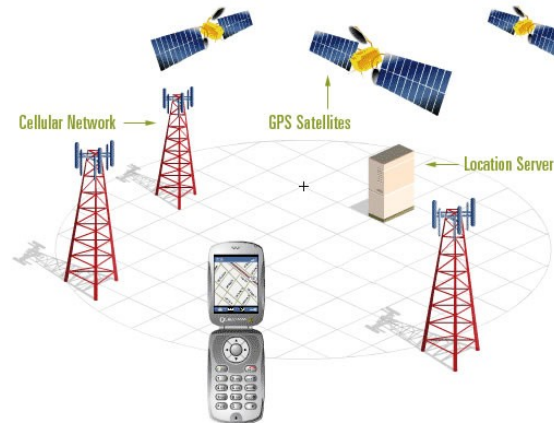


You Wonder How It All Works

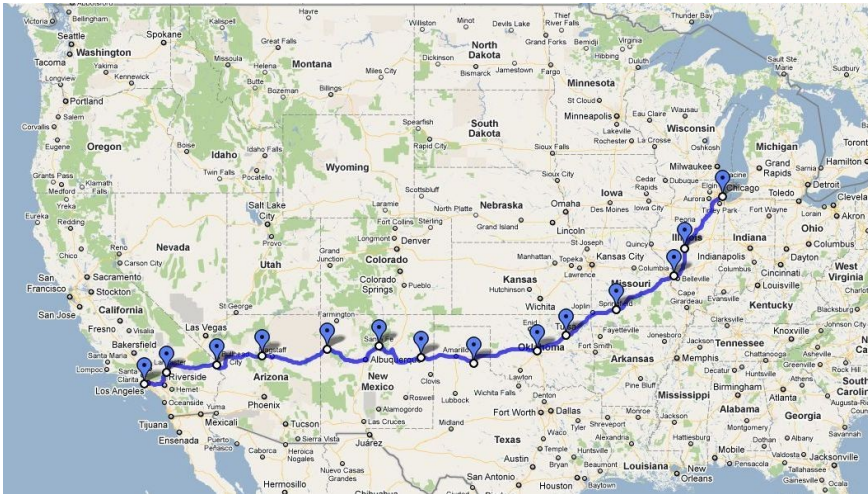


Google

$$PR(u) = \sum_{v \in B_u} \frac{PR(v)}{L(v)}$$



CS 1110: It's About the Car and...



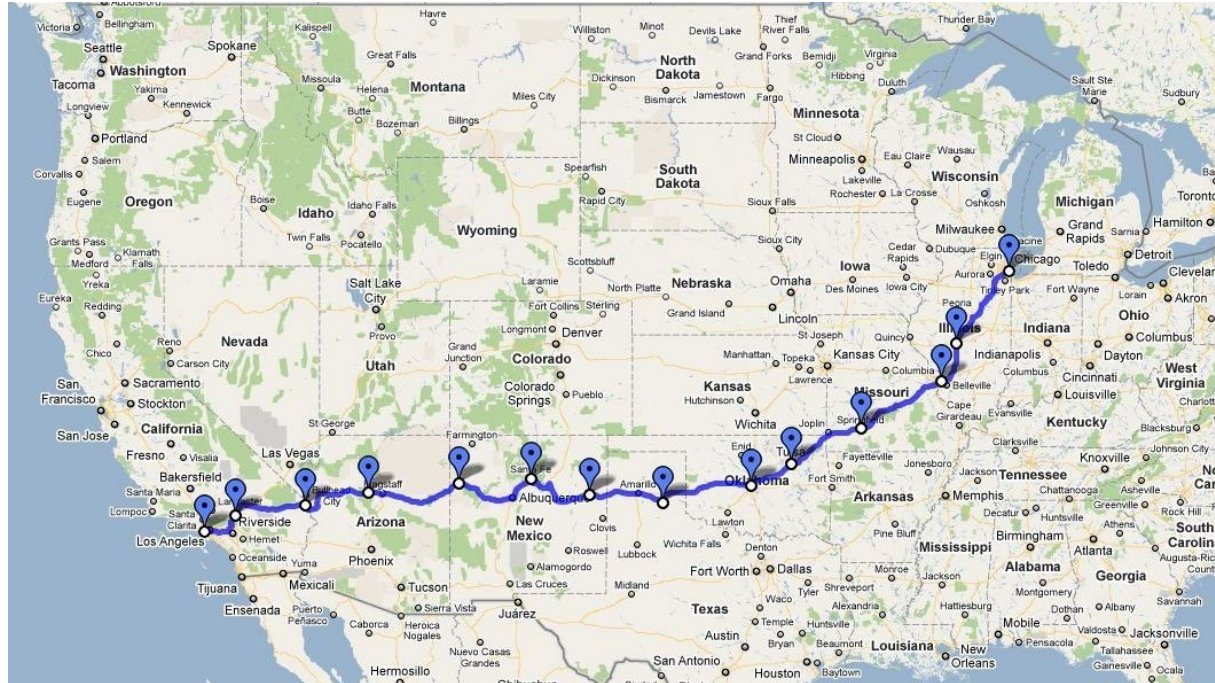
what you see out the window.

The Car is Important



**That is why we use Python.
It'll get you to LA.**

The Route is Important



**That determines what you see.
And what comes next.**

Let's Get Set

Here are some things that you
can do right now.

1. Bookmark the Course Website

<http://www.cs.cornell.edu/courses/cs1115/2015sp>

You will be visiting it a lot
starting now!

2. Read About How the Course Staff is Structured

1 Professor

6 Graduate Student TA's

40+ Undergraduate Consultants

3. Read About Grading

40% Seven programming assignments

15% Prelim 1

15% Prelim 2

30% Final Exam

4. Read About Academic Integrity

It is essential that you understand what is and is not permissible on the computing assignments.

5. Read How the Lectures Work

Where course material is presented.

Printer-friendly lecture slides online for note-taking.

Presentation slides online for review.

Demo programs online for play.

6. Read How the Labs Work

Lab assignments get you started with new Python features.

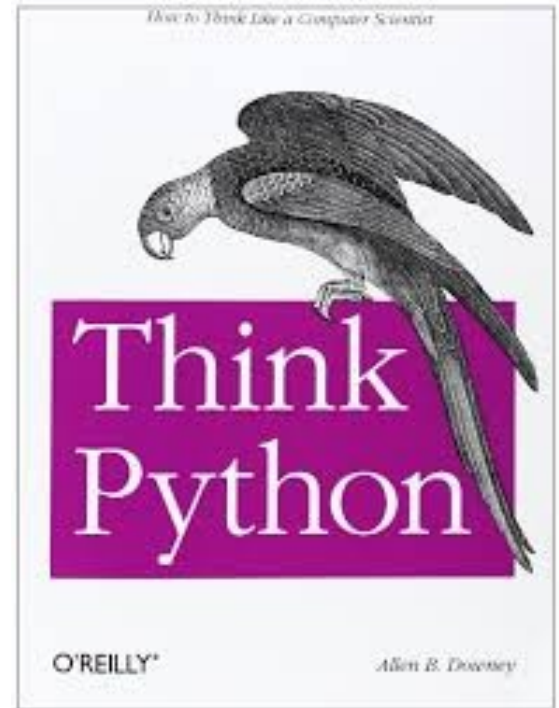
Where you get hands-on practice with course staff in the room.

You can also get help with the current assignment.

7. Get the Book

Downloadable for free
in pdf form.

Or buy hard copy.



8. Get Your Laptop Set-Up (If necessary)

Instructions online for getting set up for Python.

The Consultants can help.

OR you can simply do all your computing in the ACCEL Lab.

Then Let's Go!

Two things to
keep in mind right from the
start.

Do Not Be Fazed by What May Look Like a Staggered Start



"My classmates are already ahead."

Do Not Be Afraid to Ask For Help

