CS 1340:Fall 2020:Lecture 01
Intro to Python for CS and Data Science

Mark Fontenot, PhD

Southern Methodist University

WELCOME

- About me...

  Mark Fontenot, PhD

  Caruth 433

  mfonten@lyle.smu.edu

  markfontenot.net

BOOKMARKS!

Course Website: https://smu-cs1340.github.io/cs1340-f2020/

Github: https://github.com ... *have you made your account yet?*

Canvas, of course

TEXTBOOK

- Python ZyBooks
  - Interactive learning
  - learn.zybooks.com
  - ZyBook code for us: SMUCS1340FontenotFall2020
  - Pay and subscribe
- (Optional) Eric Matthes. *Python Crash Course, 2nd edition.* No Starch Press, 2019, ISBN-10: 1-59327-928-0

EVALUATION

- Final grades determined using standard 10pt scale.

Tool	Percentage
Homeworks and Quizzes	25%
Programming Projects	35%
Final Project	15%
Final Exam	15%
Attendance & Participation	10%

HOMEWORK AND QUIZZES

- Homework will be mostly related to ZyBooks Exercises
- Quizzes maybe administered in lecture or lab.

PROGRAMMING PROJECTS

- Learn by doing!
- If you've never programmed before, don't worry! We will guide you!
- 10% bonus credit for submitting 48 hours early.
- Everyone gets one 2-day free extension, no questions asked.
- You need to plan for at least a few hours of work per week outside of lecture and lab

ATTENDANCE

- You'll need to attend class to be successful.

- I'll talk about things that aren't necessarily in ZyBooks.

- If you're attending virtually:
    - Turn your camera on and microphone off
    - Please be mostly vertical (aka. not in bed)
    - Please be dressed as you would if attending class in person.

ACADEMIC ETHICS

- You must be prepared to defend any code or assignment that you submit.
- DO NOT ever share your code with anyone. DO NOT, DO NOT, DO NOT!!!
- You are encouraged to talk about the assignments at an abstract level. However, you cannot share your solutions with another student.

GENERAL COMMENTS

- Wear a face mask at all times
- Try and keep your phone from dominating your attention.
- Don't surf r/memes or other sites that may be distracting to those sitting around you
- Ostentatious yawning is a huge pet peeve…

the course

Apps

Besides the boring and obvious ...

What's your favorite app? OR What app do you use the most?

QUESTION

Have you ever coded before?

WHAT ARE WE GOING TO COVER?

- Computational thinking (huh?)
- The Python Programming Language
- Basic Python for Data Science Applications

ALGORITHM

What's an Algorithm?

COMPUTERS DO EXACTLY WHAT YOU TELL THEM TO

The Exact Instruction Challenge

A PROGRAM

- What's a computer program?

WHAT DO I EXPECT YOU TO KNOW?

- You should know how to use your computer.
- How to use the file browser on your computer.
- How to Google!
- How not to meltdown when something doesn't work :)

GETTING SET UP FOR PYTHON

Anaconda

- Anaconda Python is a particular distribution of the language plus bunches of other tools

- Makes it a snap to install on multiple platforms

- Go to https://www.anaconda.com/products/individual, scroll to the bottom, and choose the installer for your platform.

  - More platform-specific instructions: https://docs.anaconda.com/anaconda/install/

- Open Anaconda Navigator to verify it was installed.

To Do:

- Register for Slack and the **#20f-1340-general** channel.
  - Add a profile picture!
- Install Anaconda!
- Read Chapter 1 of ZyBooks before Thursday's class. *(I'll send out some more specific directions on the various exercises tomorrow.)*