

# 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](mailto:mfonten@lyle.smu.edu)

[markfontenot.net](http://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](https://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 may be 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.*)