

WTP 2022 Syllabus

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Class: Mon - Fri, 2:45 PM - 5:15 PM EST

Office Hours: Mon - Fri, 8:30 PM - 9:30 PM EST

Course Objectives

By the end of this class, you will be able to:

- Write and read Python code with variables, operators, conditional statements, loops, data structures (such as lists and dictionaries), and classes
- Test and debug a Python program
- Implement many games in Python, including Rock Paper Scissors, Hangman, and Tic-Tac-Toe
- Have fun programming!

Schedule

Week 1		Programming Fundamentals	HW due
Mon	6/27	Basic Types, Variables	1
Tue	6/28	Conditionals, Compound Types	2
Wed	6/29	Loops	3
Thu	6/30	Functions	4
Fri	7/1	Classes	5
Week 2		Advanced Topics	HW due
Mon	7/4	No class or OH! Happy Fourth!	-
Tue	7/5	Inheritance	6
Wed	7/6	Advanced Topics	7
Thu	7/7	Review	-
Fri	7/8	Final Project	-
Week 3		Final Project	HW due
Mon	7/11	Final Project	-
Tue	7/12	Final Project	-
Wed	7/13	Final Project	-
Thu	7/14	Final Project	-
Fri	7/15	Final Project Presentations	-

All homework is due before class on their due dates. Final projects are due before presentations.

Classes

Classes will be held everyday 2:45 PM - 5:15 PM EST. Lectures are designed to be interactive and notes will be made available after class. Be prepared to program during class. Learning Python is like learning a new language: practice is the best way to learn!

Our classes will start off with a review game, which is followed by a lecture for learning new concepts, and will finally end with a fun exercise to practice what we've learned!

Class participation is welcome and encouraged. Feel free to ask questions at any time. If you have trouble with a concept, others probably do too. Your participation will help us move at a good pace, and it helps us get to know you better.

Resources

The material in this class is adapted from [Adam Hartz's 6.145: Introduction to Programming in Python](#) course. In this course, each assignment has readings associated with it. Feel free to use this as a resource! If you want a textbook, check out [Think Python 2e](#) by [Allen Downey](#).

Additional resources will be staff members, classmates, and Google 😊 We encourage you to use all of these!

Homework

Homework will be started after the in-class game exercise of class each day. They will cover the material in lecture that day. Homework will include written, programming, and/or conceptual exercises. You can do written exercises by adding comments in the programming files.

Some of the problems will be marked "optional" – you are not required to do these, but if you finish the required problems early, give them a try! The optional problems are fun and will give you extra practice.

Homework isn't graded, but is corrected, so please do it. Programming takes practice! Turn in the homework before the beginning of class the next day. We will give you feedback on your solutions and the next day, you will be able to get your corrected homework from Canvas.

If you are having trouble with the homework, please ask the staff for help at office hours, on Discord, or during class (if we finish early)!

Office Hours

The staff will hold office hours every weekday (except Friday) from 7:30-9:00pm unless otherwise announced. Come ask us questions about the course materials or get help with the homework. Please read through the problem set instructions and read over your notes first, so that we will better be able to help you with whatever you are having trouble with.

Discord

You can ask questions or discuss problems related to the course in the Discord server in either `#cs-homework-help` or `#cs-tech-support` (whichever is applicable). All CS course staff as a group can be tagged through `@CS-Staff`. Staff will try their best to answer questions on Discord. Students are welcome to discuss problems with their peers in these channel as long as they obey the WTP collaboration policy.

Collaboration Policy

Collaboration is encouraged. You should discuss ideas and approaches to the homework with others, but **you must write your answers and programs yourself**. If you collaborate with other students on the homework, please write their names on your assignment. If you don't collaborate with anyone, write that too.

Please don't copy or let others copy off of you. Also, please do not use the Internet to *copy solutions that you don't understand*. If you have a question, please talk to one of your classmates, the instructor, or a tutor. We are available during class and office hours, and you can also ask questions through Discord!

Remember, there are no grades in WTP. You get out what you put in!

Projects

At the end of this course, you will work on a final project and present it. Your final project might be building Minesweeper, implementing a simple AI for Tic-tac-toe, or modeling a zombie apocalypse! While we will provide a few projects for you to choose from, you can also feel free to do your own project (pending staff approval). Keep that in mind while we introduce new concepts!