The schedule and topics below represent an approximate scope for the course. I reserve the right to modify the scope of this class. (revised Aug 26)

Week	**Date**	**Topic**	**Reading**	**Homework**
1	Mon, 8/26/24	Course Introduction, Administrative, Install Python/Jupyter, Set up Git.	Syllabus on Canvas, Chap 1 of Python for Everyone Set up Git and Environment.	PS1 out
	Wed, 8/28/24	Version Control (Intro to Git), Intro to Python1: Data Types, Conditionals and Functions.		
2	Mon, 9/02/24	**No lecture (Labor day)**	Chap 2-4 of Python for Everyone	
	Wed, 9/04/24	Intro to Python 2: Iteration, Strings, Lists, and Dictionaries.		PS1 due PS2 out
3	Mon, 9/09/24	Intro to Python 2: Iteration, Strings, Lists, and Dictionaries (continued…)	Chap 5-10 of Python for Everyone	
	Wed, 9/11/24			PS2 due PS3 out
4	Mon, 9/16/24	Intro to Python 3: Exceptions, and Objects in Python (OOP), Python Modules.	Chap 1-3 of Python3 Object Oriented Programming	
	Wed, 9/18/24			PS3 due PS4 out
5	Mon, 9/23/24	Intro to Python 4: Algorithm Thinking (Big-O Notation, Unit Test)	Chap 1-3 of Introduction to Algorithms Unit Test	
	Wed, 9/25/24	Debugging and Profiling.		PS4 due PS5 out

			Logging Facility in Python Google Python Style Guide	
6	Mon, 9/30/24	Numerical Computing 1: Numpy and Scipy.	Numpy Scipy	
	Wed, 10/02/24			PS5 due PS6 out
7	Mon, 10/07/24	Numerical Computing and Data Visualization 2: More on NumPy Practices.	Numpy	
	Wed, 10/09/24	Midterm		
8	Mon, 10/14/24	**Spring Break**		
	Wed, 10/16/24			
9	Mon, 10/21/24	Numerical Computing and Data Visualization 3: scikit-learn, matplotlib, and (possibly seaborn).	NumPy, Pandas Crash Course; Plotly Documentation; Pyplot tutorial; Pyplot API	
	Wed, 10/23/24			PS6 due PS7 out
10	Mon, 10/28/24	Store and Manipulate Structured Data in Python, Pandas, HTML, XML, JSON…	Chap 11-13, 15 of Python for Everyone	
	Wed, 10/30/24			
11	Mon, 11/04/24	Retrieving web data, Using Databases and SQL.	Chap 15-16 of Python for Everyone	Final Project Guideline out

	Wed, 11/06/24			
12	Mon, 11/11/24	Data Analysis for Unstructured Data Intro to Deep Learning with PyTorch.	Chap 1-4 of Understanding Deep Learning Pytorch	
	Wed, 11/13/24			PS7 due PS8 out
13	Mon, 11/18/24	DNN: Perception, Multi-layer perception, SGD, Defining Loss and Training Models.	Chap 5-9 of Understanding Deep Learning	
	Wed, 11/20/24			
14	Mon, 11/25/24	CNN and Deep Generative Modeling.	Chap 10-15 of Understanding Deep Learning	Final Project Proposal due
	Wed, 11/27/24			PS8 due
15	Mon, 12/02/24	Final Projects Discussions.	https://huggingface.co/	
	Wed, 12/04/24			Final Project Report Due
16	Mon, 12/09/24	There will be NO final exam.		