UCLA Department of Economics
Econ 10P: Introduction to Python for Economists

Syllabus

Instructor:	Dr. Randall R. Rojas
Office:	Bunche 8248
Office Hour:	Thursday, 12:30-1:30PM via Zoom
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Time and Location
4:00PM - 6:00PM (PST), Mon -Thur. Remote via Zoom

Course Description
Introduction Python with a focus on data analysis through a hands on approach. The data and examples will mainly come from finance and economics.

Textbooks

1. Python for Data Analysis. Wes McKinney. O'Reilly (3rd Ed.) (Link)

2. Introduction to Python for Econometrics, Statistics and Data Analysis. (2020, 4th Ed.) K. Sheppard (Link)

Computation of Course Grade

- 5% Attendance

- 15% Midterm Exam (June 29th)

- 25% Project/Presentation 1 (July $1 - 2$)

- 25% Project/Presentation 2 (July $7 - 8$)

- 30% Final Exam (Cumulative, July 10th)

Student Learning Outcomes

- Learn the fundamentals of programming in Python.

- Understand how to manipulate and analyze different data structures such as dictionaries and lists.

- Understand how to construct algorithms that use loops and functions for streamlining repetitive tasks.

- Perform basic data analysis tasks applied to financial data/

Disabled Students and the Center for Accessible Education (CAE)

Any student with a preexisting illness or condition who requests special arrangements must (a) qualify under CAE rules for such special arrangements and (b) must take the exam with CAE. Any such arrangements with CAE must be made the first week of classes. The instructor must be informed of any such arrangement in the first week of classes. For additional information and the qualification conditions of the Center for Accessible Education, please visit their website at http://www.cae.ucla.edu/. All other students must take the exam at the scheduled time under the same time constraints. It is the responsibility of all students who request special arrangements with CAE to be familiar with all of their rules as well as the rules of this class.

Tentative Course Schedule

Day	Lecture Topics	Chapters
	Week I	
	Finance Topics: Time Value of Money & Modern Portfolio Theory	
1 (June 22)	Introduction, Data Types, Flow Control & Loops	2^a, Lecture nontes
2 (June 23)	Lists, Dictionaries & Functions	3^a
3 (June 24)	File Operations, Recursion, and Modules	6^a
4 (June 25)	Classes, Objects, and Methods	14^a, 15^a
	Week II	
	Finance Topics: Modern Portfolio Theory & CAPM	
5 (June 29)	**Midterm Exam**	
6 (June 30)	Numerical Programming (`NumPy`)	4^a
7 (July 1)	Data Manipulation (`pandas`)	5^a, 6^a, 7^a
	Project 1 due on July 1/2	
8 (July 2)	Data Manipulation (`pandas`) -continued	5^a, 6^a, 7^a
	Week III	
	Finance Topics: Stock Price Modeling & Options Pricing	
9 (July 6)	Plotting & Visualization	9^a
10 (July 7)	Data Analysis Application 1	Lecture Notes
	Project 2 due on July 7/8	
11 (July 8)	Data Analysis Application 2	Lecture Notes
11 (July 9)	**PLF Review Session**	
12 (July 10)	**Final Exam (Friday, July 10)**	

^{a}Python for Data Analysis. Wes McKinney. O'Reilly (2nd Ed.)