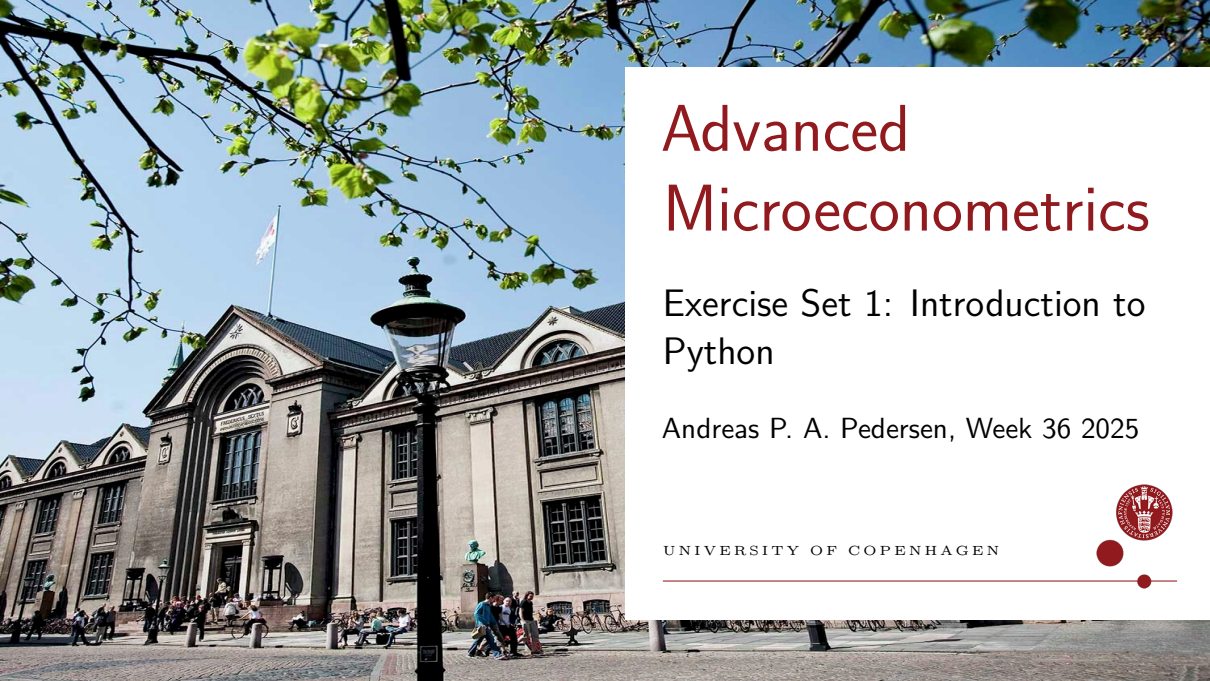

Advanced Microeconometrics

Exercise Set 1: Introduction to Python

Andreas P. A. Pedersen, Week 36 2025

UNIVERSITY OF COPENHAGEN

Today's plan

- About Me
- Python
- Assignments
- Exam
- Exercise Classes
- Time to Shine!

About me

- Andreas Peder Agerskov Pedersen
- Computer Science and Economics (June 2024) -> Polit (currently writing thesis)
- Took equivalent courses: econ B at KU Science and AE II - 716 at BU
- Third time TA'ing for this course
- Don't hesitate to contact me: wln915@econ.ku.dk
- For exam format specifics etc. defer to Jesper
- Open to feedback

Python Recommended Setup

Lots of available resources online. Get familiar with and prepare the following:

- Download Python
- Download pip in python environment (Pip Installs Packages - not a typo)
- Download Visual Studio Code (VSC)
- Setup Python Environment for VSC
- Download Jupyter VSC Extension
- Use pip to install python packages
- Get familiar with Workspace, files may only interact with other files if within same folder unless manually directed.
- Setup Copilot in VSC for seamless automated fixing of simple bugs
- Python functions have documentation online. Use if you do not understand the functionality of a python function.

Assignments

- 3 Assignments - (pass/fail) 2/3 passes for exam
- Each student must give feedback to 2 groups. low-effort/no feedback -> fail (scroll to bottom for second group)
- Groups of 3 are strongly recommended. Feedback mechanism + workload reduction + natural exam prep
- Open-ended, emphasis on correct application of theory

Exam

- Format changed: Take-Home -> Oral, attempt to make exams more fair
- Purpose: Discuss assignment primarily + course material -> Better assignments, easier exam
- Best exam prep is discussing assignments in group while doing it initially.
- Pose questions to group (you think) they can't answer. Jesper will do the same at exam.
- Summary: Use group for prep

Exercise Classes I

- Exercise classes are primarily for asking questions and getting assistance
- We want you to be able to implement solution concepts learned throughout the course.
  -> You must write the code
- Exercise Classes may be allocated to workshops
- Exercises are comprehensive, you won't have time for all. Set up copilot for seamless integration

Exercise Classes II

- Please try and do exercises before exercise class -> I help where you struggle
- Debugging is part of programming, but don't waste too much time on unfruitful labor. I am here to help!
- Solutions will be posted sometime before the next exercise class
- I post exercises for next week at 10 am on Thursdays

Your time to shine!

- Numpy functions are applicable throughout the course: np.column_stack, np.ones, np.eye, np.array, .shape() (attribute, np.inner and np.outer. Please be conscious of what they do.
- Broadcasting: Vectors are one-dimensional in Python, be cautious of the difference between (7,) and (7,1). They are different!