PYTHON SETUP & LEARNING ENVIRONMENT GUIDE

Getting Started with Python: Choose Your Setup

Six easy ways to run Python for econometrics. Start with the easiest option that fits your device. You can change paths later, and you do not need a local installation to begin.

Choose your Python path

EASIEST

1. Ceteris Lab browser Python

Run supported examples directly inside lessons.

Install: No

Best for: First exercises, managed computers

Time: 1 minute

NO INSTALLATION

2. Google Colab

Run notebooks in a browser with a Google account.

Install: No

Best for: Chromebooks and cloud notebooks

Internet: Required

COURSEWORK CHOICE

3. Python + JupyterLab

Use interactive notebooks locally in a project environment.

Install: Yes

Best for: Econometrics coursework

Time: 20-40 minutes

PROJECT CHOICE

4. Python + VS Code

Use scripts, notebooks, debugging, Git, and project folders.

Install: Yes

Best for: Research and larger projects

Difficulty: Medium

ALL-IN-ONE OPTION

5. Anaconda

Use the conda environment and package-management workflow.

Install: Yes

Best for: Students who prefer conda

Time: 30-60 minutes

ALREADY INSTALLED?

6. Existing Python

Check the interpreter, environment, packages, and kernel.

Install: Already done

Best for: Returning Python users

Time: 5-10 minutes

Beginner with no installation permission? Start with Ceteris Lab. Want cloud notebooks? Use Colab. Taking the full course? Choose Python + JupyterLab. Doing research? Add VS Code.

Compare the six methods

Method	Install?	Internet?	Difficulty	Best for	Notebooks	Projects
Ceteris Lab	No	Yes	Very easy	Quick practice	Larger labs	Small
Google Colab	No	Yes	Very easy	Cloud work	Yes	Medium
JupyterLab	Yes	Setup	Easy	Coursework	Yes	Medium
VS Code	Yes	Setup	Medium	Research	Yes	Large
Anaconda	Yes	Setup	Easy/medium	Conda	Yes	Large
Existing Python	Done	No	Easy	Current users	Check kernel	Any

Standard Python setup

Use the current supported Python 3 installer offered by Python.org. Avoid hard-coding a version from an old handout.

```
Windows: python --version
Windows alternative: py --version
macOS or Linux: python3 --version
```

Create a separate course environment

```
Windows: py -m venv .venv
macOS or Linux: python3 -m venv .venv
```

Activate it

```
Windows PowerShell: .venv\Scripts\Activate.ps1
Windows Command Prompt: .venv\Scripts\activate.bat
macOS or Linux: source .venv/bin/activate
```

After activation, your terminal usually begins with (.venv). Install packages through the active interpreter with python -m pip.

Notebooks, editors, and the setup check

Install and launch JupyterLab

```
python -m pip install --upgrade pip
python -m pip install jupyterlab numpy pandas matplotlib statsmodels scikit-learn
jupyter lab
```

In the first notebook cell, check which Python is actually running:

```
import sys
print(sys.executable)
```

VS Code

Install Python, VS Code, and the official Microsoft Python extension. Open your project folder, choose **Python: Select Interpreter**, and select the Python inside **.venv**. Add the Jupyter extension to open .ipynb notebooks.

Anaconda

```
conda create -n ceteris python
conda activate ceteris
```

Anaconda is optional. Do not casually mix pip and conda without confirming the active environment and package source.

Final setup check

```
import sys, platform
import numpy, pandas, matplotlib, statsmodels, sklearn
print(sys.version)
print(sys.executable)
print(platform.system())
print("Core packages imported successfully")
```

Your Python environment is ready for Ceteris Lab when the interpreter and core package checks run without an error.

Troubleshooting and official links

Start with a safe check. Do not use administrator or root installation as the default solution.

Python is not recognized	Windows: py --version | macOS/Linux: python3 --version
ModuleNotFoundError	Run import sys; print(sys.executable), then install into that environment.
pip is not recognized	Run python -m pip --version or py -m pip --version.
Notebook cannot find pandas	Check sys.executable. The notebook kernel may use a different environment.
Permission denied	Use .venv, Google Colab, or Ceteris browser Python.
Jupyter opens the wrong folder	Change into the project folder first, then run jupyter lab.

Official resources

Ceteris Lab setup module: https://econometrics.safavim.com/modules/python-setup

Python downloads: https://www.python.org/downloads/

Jupyter installation: https://jupyter.org/install

Google Colab: https://colab.research.google.com/

VS Code Python guide: https://code.visualstudio.com/docs/python/python-tutorial

Anaconda download: https://www.anaconda.com/download

Keep this guide nearby on a phone while setting up Python on a computer. The online module has copy buttons, live Python examples, a setup recommender, progress checkpoints, and contextual Ceteris Tutor help.