PHYS 310: Spring 2026

Notes on installing a Python programming environment for assignments

Many different python programming environments exist and you may have one already on your computer. For this course, we recommend using JupyterLab which is a feature-rich notebook authoring application and editing environment. The guide below will help you install the application, or confirm that you have it installed already.

Create a PHYS310 directory where you store your PHYS 310 programming tasks. For example at: /MyDocuments/PHYS310.

Check if you have jupyter lab installed:

- Case 1: You have Anaconda installed and properly configured on your computer.
    - Check that you are able to load and run jupyter notebooks and save them in the PHYS 310 directory. In order to do so:
        - Open anaconda prompt or terminal on Mac
        - Navigate to your PHYS310 directory
        - In Windows, you may type: `jupyter lab` and press enter. This should launch a notebook session in a browser with access to your file system.
        - For Mac, type the `conda activate` command first and press enter. Then type: `jupyter lab` and press enter. This should launch a notebook session in a browser with access to your file system.
    - If jupyterlab lab launches, then you are set.

- Case 2: You do not have a local python installation on your computer yet.
    - Install Miniconda (A light weight version of anaconda that has all that we need) We recommend using the miniconda command line installer for your operating system (i.e. Windows, MacOS, or Linux)
    - Open up command line interface and navigate to your PHYS310 directory
    - Run: `conda install jupyter` to install Jupyter (You will need to press `y` to confirm the install)

- Check that you are able to load and run jupyter notebooks and save them in the PHYS 310 directory. In order to do so:
    - Open anaconda prompt or terminal on Mac
    - Navigate to your PHYS310 directory
        - In Windows, you may type: `jupyter lab` and press enter. This should launch a notebook session in a browser with access to your file system.
        - For Mac, type the `conda activate` command first and press enter. Then type: `jupyter lab` and press enter. This should launch a notebook session in a browser with access to your file system.
    - If jupyterlab lab launches, then you are set.

If you have any trouble getting an installation set up, please let either Prof. Sulai or Villasden know.

Install numpy, matplotlib, and scipy

Open up an anaconda prompt and enter the following commands to install numpy, matplotlib and scipy respectively

- `conda install anaconda::numpy`
- `conda install conda-forge::matplotlib`
- `conda install anaconda::scipy`