# Tutorial - Week 1

## Getting ready for the course

For the first assignment in this course we will be using the lates stable version of python - 3.11.4. If you have already installed python or you know how to do it, please skip the instructions. This part aims at helping those experiencing problems with python installation.

Using an Integrated Development Environment (IDE) can offer several advantages when working with Python including debugging tools. I don't have any preferences regarding IDE you use for the assignment. I use PyCharm because it looks nice, has great support and free educational license. You are free to use whatever IDE you want (even a simple text editor) - your choice.

You will also need to install Jupyter Notebook - a popular tool for interactive computing and data analysis. It provides a web-based interface where you can write and run Python code, view and visualise data, and document your analysis using Markdown.

## How to install python 3.11.4

- Open a web browser and go to the official Python website: https://www.python.org/downloads/

- Find "Download the latest version for macOS" section and click on the "Download Python 3.11.4" button.

- Once the installer file is downloaded, open it by double-clicking on it.

- Follow the instruction of the installer. You may be prompted to enter your administrator password. Provide the password and click on the "Install Software" button.

- Once the installation is complete, you can check the python version by typing in terminal:

```
python3 --version
```

Optional step: If the terminal still uses a different version you might want to updating the PATH variable. Locate Python 3.11.4 installation folder - it should be /Library/Frameworks/Python.framework/Versions/3.11/. Then change *path_to_python_folder* to the python installation folder in `PATH="path_to_python_folder/bin:${PATH}"` and paste it in the terminal. Then type:

```
export PATH
```

Now if you type `python3 --version` in the terminal it should print the correct version.

## How to install PyCharm IDE

You can get a license here: https://www.jetbrains.com/community/education/#students. The installation is very straightforward - create an account, download PyCharm installer, follow the installation instructions.

# How to install Jupyter Notebook

You python installer should come with 'pip3' - a package management system used to install and manage software packages written in Python. If not - check out the next section.

To install Jupiter Notebook you can simply type `pip3 install jupyter` in the terminal.
To test it you can type `jupyter notebook` in the terminal and it will automatically open the web interface in the default browser.

You can find more info, installation guide, etc. on the website:
https://docs.jupyter.org/en/latest/

# How to install pip3

Follow the instruction on the website:
 https://pip.pypa.io/en/stable/installation/#get-pip-py