## Installing Python on a Mac or Windows machine:

If you are on a **Mac**, we highly recommend first installing Homebrew. Homebrew is a software that makes it easier to install other tools, and provides other useful utilities. You can follow the instructions at https://brew.sh/. Note that this will take a little while, so just be sure to follow along and follow the instructions. Then continue below.

1. On **Mac** or **Windows**, visit python.org/downloads in your web browser.
2. Click the yellow button to download the application. It should automatically detect your operating system, and download the file that will work to install Python.
3. When the download finishes, open it by either clicking on the downloaded file in your browser, or double-clicking on the file wherever it was downloaded (e.g., your Downloads folder).
4. Follow the prompts. For the most part, you can use the default options, but please note:
    a. If you are using a **Windows** machine, there is a checkbox that says "Add Python to PATH". Please make sure to check this box.
5. Test that it worked:
    a. On **Mac**, open Terminal (command + space, then type `Terminal` and hit enter)
        i. Then type `python` and hit enter. If it gives an error, try typing `python3` and hit enter
    b. On **Windows**, open the command prompt (click the start menu and search `cmd`)
        i. Now type `python` and hit enter
6. Following 5(a) for Macs or 5(b) for Windows should result in a similar output that looks something like the following. The Python version and specific details might look different, but that's okay (make sure it says "Python" and has the ">>>"):

```
Python 3.7.4 (default, Aug 13 2019, 15:17:50)
[Clang 4.0.1 (tags/RELEASE_401/final)] :: Anaconda, Inc. on darwin
Type "help", "copyright", "credits" or "license" for more information.
>>>
```

For additional installation guides with screenshots, please visit bit.ly/KaeferPythonResources. Click on Installation Instructions. Note that these download as compressed .zip files with several files inside; you only need to install Python (don't worry about other installations).

## Next step: install pip and Jupyter

With your Command Prompt window (on Windows) or Terminal window (on Macs) open, type
`python -m ensurepip --upgrade`

This should install pip, which will make it easier to install packages.
If this didn't work, visit this link for instructions: pip.pypa.io/en/stable/installation/

Next, you will want to run `pip install jupyterlab`

After this finishes, run `jupyter-lab`. It should launch a page in your default web browser. If this doesn't work, don't worry! We can help you out before the crash course.

## Installing Python on a Chromebook:

For setting up your Python environment on a **Chromebook**, visit bit.ly/PythonChromebook. Once you get it working, follow the steps above to install `pip` and Jupyter.

## Installing Python on Linux:

If you use **Linux**, it is likely that your system already has Python installed. Open your terminal application and type

```
python --version
```

and hit enter. The output should say something like "Python 3.7.4" or "Python 3.10.6". We recommend having at least version 3.7.

Because there are different versions/flavors of Linux, instructions to install or update will vary. Search the web based on your specific system; otherwise we will be happy to assist you on the day of the crash course.

Follow the instructions above to install `pip` and Jupyter. Again, we will be happy to help you the day of the course if you get stuck!