

Getting Started with Python

Introduction to Python and Bioinformatics

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Install Anaconda

- Go to the following link:
<https://docs.anaconda.com/free/anaconda/install/index.html>
- Follow instructions for your system (Mac, Windows, Linux) to install the **Python 3.0+** version of Anaconda
 - The file is approximately 300-500 MB so it may take a while to download in the class period; additionally, the file may take a while to install
 - Please be sure to do this prior to class to maximize time learning Python and other packages
- Review the following tutorials if you're interested in investigating Conda more:
 - <https://conda.io/projects/conda/en/latest/user-guide/getting-started.html>

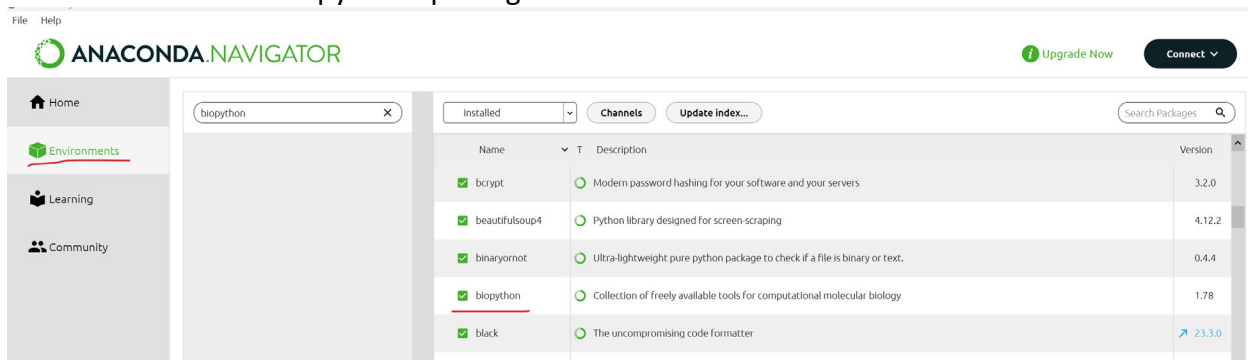
Once Anaconda is installed (or if Anaconda is already installed):

- Open a terminal
 - On a Mac or Linux machine open up the terminal
 - On a Windows machine the easiest option is to use the Anaconda Prompt that comes with Anaconda. To find the prompt terminal on windows, go to your search program and search for the "Anaconda Powershell Prompt".
- Check the version of Anaconda. Type the following into your terminal
 - `conda --version`
 - conda will respond with the version number that you have installed, like: conda 23.7.4 (it can be different on your machine)
- Update conda to the latest version by typing the following commands
 - `conda update conda`
- If a newer version of conda is available, type Y to update
 - Proceed ([y]/n)? y
- Update the *Anaconda* meta package:

- conda update anaconda
- Proceed ([y]/n)? y

Installing biopython package

- The biopython package is not installed by default on Anaconda.
- Make sure Anaconda is not running and closed.
- Open “Anaconda Powershell Prompt Window”.
 - Type the command “pip install biopython”. Wait until the installation finish.
 - Run “Anaconda”
 - In the “Anaconda Navigator” window.
 - Click on “Environments” side menu option.
 - Find “Biopython” package from the list and make sure it is checked.



Installing a text editor

- If you do not already have a text editor that you are comfortable using on your machine, please install one prior to the class
- One very common one to use is Sublime Text which is available for Mac OS, Windows and Linux
 - <https://www.sublimetext.com/>
 - Free to download and evaluate, though the full version of the software for continued use costs money.
 - The free version will be adequate for the class.
- If you are adventurous, learn how to use vim, emacs, or nano which are alternate command line text editors on mac or linux computers.
 - These text editors have a steep learning curve but are very powerful once you get the hand of them.