Please visit the course github at:

<https://github.com/KenLauLab/Discovery_Oriented_Data_Science>

The materials for the course will be updated as the course progresses. Prior to lecture 1: please ensure Python is installed.

**Python Installation Instructions**

\*Successful installation of p-Creode indicates you have all the components needed for the course

**Installation for Mac or Linux**

There are three ways to install p-Creode with Mac/Linux operating systems.

git clone git://github.com/KenLauLab/pCreode

cd pCreode

sudo pip install .

With this install, the jupyter notebook tutorial and the example scRNA-seq myeloid data set can be accessed in the notebook and data directories on your machine.

sudo pip install pcreode

Homebrew and anaconda install courtesy of Dan Skelly.

brew install igraph

git clone git://github.com/KenLauLab/pCreode

cd pCreode

conda create -n pcreode python=2.7 python-dateutil=2.5.3 numpy pandas matplotlib python-igraph jupyter cython

source activate pcreode

pip install .

Note: For Mac users, Cairo may or may not be installed. If you have problems plotting, you need to install Cairo. Please follow the instructions in this [link](http://macappstore.org/cairo/).

\*\*\* Some Mac users have experienced issues installing igraph, [here](http://igraph.org/python/#pyinstallosx) is a link to instructions for a direct install on a Mac

**Installation for Windows**

The problem with p-Creode installation on a Windows machine is with the python-igraph package, where there seems to be a bug in the setup. Hence, additional steps must be taken.

1. Install Anaconda version 2.7
2. Download the user compile wheels of 2 packages (download the bit version as appropriate) from this [link](http://www.lfd.uci.edu/%7Egohlke/pythonlibs/):

   -       [pyCairo](http://www.lfd.uci.edu/%7Egohlke/pythonlibs/#pycairo)   For example, in Anaconda prompt, go to the directory where the whl is downloaded and:

pip install pycairo-1.13.2-cp27-cp27m-win\_amd64.whl

   -       [python-igraph](http://www.lfd.uci.edu/%7Egohlke/pythonlibs/#python-igraph)

pip install python\_igraph-0.7.1.post6-cp27-none-win\_amd64.whl

1. pip install pcreode

\*\*\* If your Python version is greater than 3.0 you will need to install a Python 2.7 IPython kernel to run jupyter notebooks. Instructions on how to accomplish that can be found [here](https://ipython.readthedocs.io/en/latest/install/kernel_install.html)