

LAB 3

Python plotting

Learning goals:

Basic plotting with Matplotlib.

Go through the steps below to create a plot gradually. Some steps will be superseded by subsequent ones, but include them anyway in your `code`, commented out. For new commands, you may browse the Matplotlib examples gallery or use the built-in `help()`. You should drop the `'plt.'` prefix if you see it.

1. Create a vector `'x'` using `linspace()` as shown in class.
2. Create a vector `'y'` that is some function (of your choosing) of `x`.
3. Make a plot of `y` vs `x` having the following properties
 - a) solid line style
 - b) dashed line style
 - c) marker type (no line):
 - i) circle
 - ii) \times
 - iii) 5-point star
 - d) line & marker (your choice of style and type)
 - e) next, apply a color of your choice
 - f) label the axes
 - g) title the plot
 - h) include a label using `text()`
 - i) add a legend to the lower-right corner
 - j) turn on grid lines
 - k) modify the following command to set the plot font size to look good:

```
rcParams.update({'font.size': XX})
```
- l) Save your plot as an image file (use `savefig()`), and upload it to Canvas along with your Jupyter `.ipynb` file.
4. What does `xkcd()` do?