**BASIC PYTHON REQUIREMENTS FOR THE COURSE**

1. Installation of IDE (Integrated Development Environment)
   1. Spyder IDE (<https://www.spyder-ide.org/>)
   2. Jupyter notebook (<https://jupyter.org/>)
   3. Online compilers such as <https://www.w3schools.com/python/python_compiler.asp>
   4. Any other IDE you may find on the internet as long as it has latest Python version
2. Declaration of variables (numbers, strings, lists)
3. Conditional execution (if/else, while, for)
4. Functions (common functions, custom definitions)
5. File I/O (open, close, readline, split, join, write)
6. Modules/Libraries\*
   1. numpy: for linear-algebra/numerical routines
   2. scipy: for curve-fitting/optimization/science related routines
   3. matplotplib: for plotting

\*This is for advance users. We will be covering some of these in the course also.

**WHERE TO FIND HELP?**

1. Many YouTube channels such as <https://www.youtube.com/watch?v=t8pPdKYpowI>
2. <https://www.w3schools.com/python/>
3. List of many resources here [**https://wiki.python.org/moin/BeginnersGuide/Programmers**](https://wiki.python.org/moin/BeginnersGuide/Programmers)