UNIX Terminal Essentials

- Try the following commands
  - echo $SHELL - echo reports the value of a variable. $SHELL is the terminal interface you are using, and will affect the details of all other commands. bash is a popular shell.
  - File operations
    - ls – list files and directories
    - cp – copy files
    - rm – remove files and directories
    - mv – rename or move files and directories to another location
  - Directory management
    - pwd – confirm current directory
    - cd – change directory
    - mkdir – make new directory
    - rmdir – remove directory
- Also see
  - https://www.unixtutorial.org/basic-unix-commands
  - An Introduction to Linux (https://www.youtube.com/watch?v=IVquJh3DXUA). Work with the terminal starts at 3:35

Command Line Interface (CLI)

- Computer software is usually either accessible by a
  - graphical user interface (GUI) or a
  - command line interface (CLI)
- A lot of scientific software is based on a CLI
  - it takes effort to create a GUI
  - a CLI is easier to automate
- Starting a program on the CLI looks like
  - path_to_program/program_name required_argument1 --argument1_name argument1_value
    - path_to_program can be ./ for the local directory or omitted if the program is in the $PATH variable
    - the number of required and optional arguments depends on the program