Git Basics for MATH2121

On the use of Git and GitHub
We are using Git tools mostly for turning in homework and accessing codes, but not much for the version control. The levels of knowledge of git are varied for the class, if you know alternative ways that achieve the same result, feel free to use them. The instructions provided will mostly focus on using git commands from command line i.e. in terminal for Mac and Linux or Git Bash on Windows. There are some text editors and GUIs that are useful especially to beginners, eg. Atom and Visual Studio Code, and students are welcome to explore these options as long as they achieve the intended results.

Here are the commands you will use the most (see meanings in the cheat sheet):

- `git clone`
- `git status`
- `git pull`
- `git add`
- `git commit`
- `git push`

Other commands that might come up:

- `git fetch`
- `git checkout`
- `git branch`

- `git init`
- `git config`

What's really important to know how to do:

- Clone a repository on GitHub onto your machine in a directory of your choosing
- Pull changes from a repository
- Mark files for version control
- Commit changes
- Push changes to the remote repository
- Check the status of the repository
- Mark which files git shouldn't track (you can do this using the `.gitignore` file
- Working on the `main` branch will be sufficient for this class

Resources:

- Git cheat sheet from GitHub included in Canvas files
- The git manual `https://git-scm.com/docs`
- Git guides by GitHub `https://github.com/git-guides/`
- Your instructor
- Your classmates
- Google any errors encountered