Git Basics (the bare essentials to get you started)

Configuration Commands

Set the full name that will be attached to your commits

```
git config --global user.name "<full name>"
```

Set the email address that will be attached to your commits

```
git config --global user.email "<email address>"
```

Setting Up a Repository

Set up a new repository within a directory (you need to be in the directory first)

```
git init
```

Cloning an existing repository (you need to be in the directory that you want to repository to be in)

```
git clone <git repo url>
```

Tracking changes to your code

Check the status of your repository

```
git status
```

Check the log file

```
git log
```

Add an edited file to the staging area

```
git add <filename>
```

Commit all staged changes to the repository

```
git commit -m "<descriptive message>"
```

Branching and Merging

Branching gives you an exact copy of the working directory so that you can test out new features and make a huge mess without doing any damage to the main line of code. Git says that branching is cheap, and encourages you to branch early and branch often.

Create a branch

```
git branch <branchname>
```

Move into a branch

```
git checkout <branchname>
```

Create a branch and checkout in one command (shortcut to the above two commands)

```
git checkout -b <branchname>
```

Merge a branch into the current branch you are in

```
git merge <branchname>
```

Working with central (remote) repositories

If you've cloned a remote repository, git will automatically store the location of the remote repository, so all you will need to do is push your changes. If not, you will need to add a remote location

Add a remote repository location

```
git remote add <remote_name> <remote_repo_url>
```

Push your changes to the remote repository (central repository)

```
git push
```

Download the latest changes applied to the remote repository

```
git fetch
```

Download the latest changes from the remote repo **and merges them** (more dangerous than fetch)

```
git pull
```