# Version Control: Git

# Git tasks

1. Read my Git primer on the ASTR8020 links page. Read the whole thing before attempting any tasks.

2. Configure Git (if necessary)

   - Use *git config --global --edit* to make sure your name and email are correct

3. Make a practice repo on your computer and learn to commit and revert changes.

4. Clone our ASTR8020/directory with *git clone.*

5. Make your personal directory in the Git repository. Use the UNIX *mkdir* command. Also add a *week1* subdirectory.

# Git tasks

6. Create a .gitkeep file and add it to your local repository using *git add* and *git commit*. Don't forget to supply comments.

7. See whether your local repository is up to date using *git fetch* and *git status*. Update it with *git pull* if it is not.

8. Push your changes to the remote repository with *git push origin master*.

9. Use *ls* to explore the ASTR8020 directory

   - Has anything changed as your peers have progressed?

10. Add a dummy file to your working directory and commit a couple of changes to it.

# Git tasks

11. *git fetch* and then *git status* again to ensure you have the most recent version of the repo.  *git pull* to merge changes if you do not.

12. Use the UNIX *rm* command to delete the dummy file that you created

13. *git status,* what happened?

   - Execute *git checkout filename*

   - Note how useful this is...your work is backed up

   - this is (one of the reasons) why it is very beneficial to frequently *git commit* any work you are conducting

# Git tasks

1. Submit the *git fetch* and *git status* commands.  Update with *git pull* to ensure that you have the most recent version of the repo.

2. Run *git log*

   - A lot has happened. Do you understand the output?

3. Change the content of your text file and recommit it

4. *git fetch*, *git status*, *git pull* again, to ensure you have the most recent version of the repo

5. Can you determine how to use *git diff* to see the difference between your text file when you first submitted it, and your more recent version?