**Basic Navigation:**

**pwd** - Where am I in the system.

**ls [path]** - Perform a listing of the given path or your current directory.

Common options: -l (long list), -h (human-readable), -a (show hidden)

**cd [path]** -Change into the given path or into your home directory.

**Path** - A description of where a file or directory is on the filesystem.

**Absolute Path** - One beginning from the root of the file system (eg. /etc/sysconfig ).

**Relative Path** - One relative to where you currently are in the system (eg. Documents/music ).

**~** (tilde) - Used in paths as a reference to your home directory (eg. ~/Documents ).

. (dot) - Used in paths as a reference to your current directory (eg. ./bin ).

.. (dot dot)- Used in paths as a reference to your current directories parent directory (eg. ../bin ).

**TAB completion** - Start typing and press TAB. The system will auto complete the path.

Press TAB twice and it will show you your alternatives.

**File Maniuplation:**

**mkdir <directory name>** - Create a directory

**rmdir <directory name>** - Remove a directory (only if empty).

**touch <file name>** - Create a blank file.

**cp <source> <destination>** - Copy the source file to the destination.

**mv <source> <destination>** - Move the source file to the destination.

May also be used to rename files or directories.

**rm <path>** - Remove a file or directory.

Common options: -r –f

**file [path]** - Find out what type of item a file or directory is.

**Spaces in names** - Put whole path in quotes ( " ) or a backslash ( \ ) in front of spaces.

**Hidden files and directories** - A name beginning with a . (dot) is considered hidden.

**Permissions:**

**r** (read) **w** (write) **x** (execute)

Owner or User, Group and Others

**ls -l [path]** - View the permissions of a file or all items in a directory.

**chmod <permissions> <path>** - Change permissions. Permissions can be either shorthand

(eg. 754) or longhand (eg. g+x).

**Manual Pages:**

**man <command>** - View the man page for a command.

**man -k <search term>** - Search for man pages containing the search term.

Press **q** to exit man pages

**Piping and Redirection:**

**>** Redirect STDOUT to a file.

**>>** Append STDOUT to the end of a file.

**2>** Redirect the STDERR to a file.

**<**  Pass the contents of a file to a program as STDIN.

**|**  Feed the STDOUT of the program on the left as STDIN to the program on the right.

**Process Management:**

**CTRL + C** - Cancel the currently running process.

**kill <process id>** - Cancel the given process.

Include the option -9 to kill a stubborn process.

**ps** - Obtain a listing of processes and their id's.

Including the option aux will show all processes.

**CTRL + Z** - Pause the currently running process and put it in the background.

**jobs** - See a list of current processes in the background.

**fg <job number>** - Move the given process from the background to the foreground.

**Filters:**

**head** - Show the first n lines.

**tail** - Show the last n lines.

**sort** - Sort lines in a given way.

**wc** - How many words, characters and lines.

**grep** - Search for a given pattern.

**tac** – Print data in reverse order

**uniq -**  Remove duplicate lines.

**Wild Cards:**

**May be used anywhere in any path.**

**\*** Zero or more characters (eg. b\*).

**?** Single character (eg. file.???).

**[** **]** Range (eg. b[aio]t).

**Useful Commands:**

**du -sh ./\*** Find the size of every directory in your current directory.

**df –h** Display how much disk space is used and also free.

**basename -s .jpg -a \*.jpg | xargs -n1 -i cp {}.jpg {}\_original.jpg**

- Make a copy of every jpg image file in the current directory and rename adding

\_original.

**find /home -mtime -1**

Find all files in the given directory (and subdirectories) which have been modified in the last 24 hours.

**shutdown -h now**

Shutdown the system. (Replace -h with -r for reboot.)