

# HPC-101 – Cheatsheet

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Information Technology Services – Cyberinfrastructure

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## 1 Directory Navigation

`cd <Directory>`

Change to directory specified

`ls <Path>`

List the contents of the specified path

`ls -l <Path>`

This flag list the paths content in long form

`ls -lh <Path>`

Make the filesize humanreable

`ls -a <Path>`

Show hidden directories and files

## 2 SSH/SCP

`ssh <user>@<host>`

`ssh -Y <user>@<host>`

Enable X11 forwarding

`scp <file> <user>@<host>:<remote path>`

Copy a file to a remote location

`scp -r <dir> <user>@<host>:<remote path>`

Recursively copy a directory to a remote location

## 3 SLURM

### 3.1 Management And Monitoring

`sbatch <slurm_script>`

Submit a slurm script to the scheduler for batch processing

`sbatch -array=[#-#] <slurm_script>`

Submit a job array to the scheduler

`srun`

Used in submitting an interactive job, or also used within a slurm\_script

`srun.x11`

Used in submitting an interactive job, that also forwards the X, if you logged in while enabling X forwarding

`squeue`

Display all jobs running or waiting on the cluster

`squeue -u<user>`

Only display jobs for the specified user

`sinfo`

Display the partitions and nodes state

`scancel <jobid>`

Cancel the specified job

## 3.2 Details and Profiling

`scontrol show jobid <jobid>`

Show job details of a waiting or running job

`scontrol show partition <partition>`

Show details of the specified partition

`scontrol show node <node name>`

Show details of the specified node

`sacct -l -j <jobid>`

Show usage details of a job

`sacct -u <user>`

Show all jobs from a given user

## 4 Modules

`module avail`

List all available software modules

`module load <module name>`

Load the specified module into your environment

`module show <module name>`

Shows you what actions the module performs on your environment

`module purge`

unload all loaded modules

## 5 Miscellaneous

### 5.1 Commands

`less <file>`

Show contents of file  
Navigate using up/down arrow keys, or spacebar  
Press 'q' to exit out of less

`less -S <file>`

Show contents of file without line wrap  
Navigate using up/down arrow keys, or spacebar  
Press 'q' to exit out of less

`man <command>`

Show the manual entry (if one exists) for the given command  
Uses the same controls as less  
Press 'q' to exit out of man

### 5.2 Operators

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Pipe operator is used between two commands, in which you wish to pass the output of the 1st command to the input of the 2nd command  
Ex. `sacct -l -j 467 | less -S`

### 5.3 Hosts

`login-0001 - uhhpc1.its.hawaii.edu`

### 5.4 Globus Endpoints

`login-0001 - UH-HPC1`