BCCD Cheat Sheet

Note: In the commands below, even if the command spans multiple lines, it is meant to be typed as a single line.

Note: In the commands below, replace **`{things like this}`** (curly braces and the things between them) with the relevant information.

Note: Your **node number** is what appears on the prompt after the word "node" and before the dollar sign **$** (e.g. 000, 009, 010, etc.).

`bccd-snarfhosts -v`	Find other machines running BCCD on the network, print them out to the screen (one per line), and create a file with a listing of them at `~/machines-openmpi`. In this list, "slots" means the same thing as "cores."
`emacs ~/machines-openmpi &`	Open the machines file in a text editor (useful for changing the order of machines).
`cd {GalaxSee, Pandemic, Life, Parameter-space, Sieve}`	Change the current directory to one of the curriculum module directories.
`make`	Compile software in the current curriculum module directory.
`bccd-syncdir {directory} ~/machines-openmpi`	Sync a directory across all the machines in the machines file.
`cd /tmp/node{node number}-bccd`	Change to the directory created using `bccd-syncdir`.

`time mpirun`
`  -np {# of processes}`
`  -machinefile ~/machines-openmpi`
`  ./{executable file with "mpi" in the name}`
	Run an executable file in parallel using the Message Passing Interface (MPI), with the given number of processes, across the machines listed in the machines file. The "real" time shown at the end is the total time it took the program to run.

`top`	Show a table of the processes that are currently using the most % CPU. Type **q** to exit.
`sudo shutdown -h now`	Power down the machine.