Crash Course

The Power of the Command Line

$ whoami
$ date
$ date +%T
$ date +$Y
$ cal
$ emacs -nw -f tetris
up arrow rotates
left right arrows move
quit: ctrl-x, ctrl-c
    to quit: hold control and x then hold control and c
$ clear
$ history

In the valley of echos

$ echo Science!
Science!
$ echo "Your username is $USER"
Your username is dff2106
$ echo $HOSTNAME
banana
$ echo $OSTYPE
solaris2.7
$ printenv

Make your own variables!

$ myname="David"
$ echo $myname
David
$ echo "My name is $myname"
My name is David
It can do math!

```
$ echo 2 + 3
2 + 3
$ echo $((2 + 3))
5
$ mynumber=72
$ echo mynumber
mynumber
$ echo $mynumber
72
$ echo $mynumber / 9
72 / 9
$ echo $((mynumber / 9))
8
```

Let's write some code!

```
$ {
    > echo "Welcome to the countdown."
    > now=$(date +%T)
    > echo "The time is now $now"
    > echo "Hit return to ignite."
    > read
    > echo 3
    > echo 2
    > echo 1
    > echo Blastoff!
    > }
```
Use an editor to write better code!

```
$ ed
  a
  echo "Hi, what is your name?"
  read name
  echo "Hi $name I am $HOSTNAME"
  echo "What year were you born?"
  read year
  now=$(date +%Y)
  age=$(($now - $year))
  echo "Ah, $year, that was a good year."
  echo "So that makes you $age years old."
  .
  wq myfirstcode
$ bash myfirstcode
```

You can go online!

```
$ telnet towel.blinkenlights.nl
Watch star wars!!
to quit: ctrl-c then type 'quit'
Here we will write a simple code in with ed editor.
Maybe use curl on some data
go to supernova data file type: txt for inspiration
http://supernova.lbl.gov/Union/figures/SCPUnion2_mu_vs_z.txt
OR GET SDSS DATA
example:
http://dr9.sdss3.org/spectrumDetail?plateid=1646&mjd=53498&fiber=41
head tail cat
more less
ed
grep
awk $2 $5
```

Navigating the Filesystem

```
$ echo $HOME
/u/10/j/jf2663
$ echo $SHELL
/bin/bash
bash is not only program but also an interactive shell to your computer!
$ pwd
$ ls
```

Maybe use ed to create alias and/or new bash command for tetris
$ ssh uni1234@cunix.cc.columbia.edu
$ lookup Bollinger