CSC – 60 Notes:

08/28/2018:

* Make sure to attend post midterm, as this is when we will start function calls
* Download course textbooks from course canvas page
* Create an ECS account in the computer lab or from ecs.csus.edu
* Apply for a key FOB to gain permanent access to Sac State computer labs
* Make sure to save PowerPoints and code from this class for CS-138 (Operating Systems) as they will expect me to be hyper familiar with all of this course’s material
* Looking things up on google is permitted, so long as I am not plagiarizing the work of other students directly. This holds true even during tests.

08/30/2018:

* To log onto an Athena computer:
  + **Windows machines**: Use PuTTY
  + MAC/Linux: Open up a terminal/console window (ssh)
* Open an editor. (C programmers use vim.)
* Write code, compile, save, etc.
* Get the code to a place where you can open your browser and upload it to Canvas
  + Email the file from Athena to myself. Worst case use dropbox.
  + Have the option to download Filezilla/Cyberduck to move files from Athena🡪Home and vice versa
* Logging onto a UNIX machine (Windows)
  + Sit at a UNIX machine and log in
  + As I enter my password, nothing will show on the screen.
  + Do a remote login using SSH
    - **Host name**: athena.ecs.csus.edu
    - **Connection type**: SSH
    - **Saved Session**: \*Whichever session I create & save\*
* Mac users can do some other stuff with ssh
* To see which shell I am in when I log in, type: echo $Shell
* For further notes on navigating through directories among Athena clients, see today's Lecture PPT slides.
* [VIM cheat sheet](VIM%20Quick%20Reference%20Card.pdf)

09/04/2018:

* Out of class for rug cleaning services at home.
* hydra.ecs.csus.edu

09/06/2018:

Escape Sequences for **printf**:

* \n Line feed or New line
* \a Alert. Beep. Bell
* \b Backspace
* \r Carriage return. Moves to start of line
* \ Concatenate lines
* \" Print double quotes
* \f Formfeed (ejects printer page)
* \t Horizontal tab
* \v Vertical tab
* \\ Print backslash
* \' Print a single quote
* \? Print question mark
* %% Print percent character

scanf function:

* Reads values from keyboard
  + int count;
  + scanf("%i", &count)
* See slideshow notes for the rest of this function
* Note: scanf does not like "\n" in the argument sequence
  + scanf is very picky
  + Again see slideshow notes for details

Constants

* Values that will not change during program.
* examples:
  + #define PI 3.14159
  + #define SYMBOLIC\_NAME replacement/value

Math.h

* #include <math.h>
* You may use these constants in class, but know that they are NOT ANSI standard!

The C language:

* The most commonly-used language for embedded systems
* "High-level assembly" with easy-to-understand compilation

Operating system

* A control program for a computer that performs the following operations:
  + allocate resources, schedule tasks, provide a platform to run application software, and provide a user interface

09/11/2018:

Changing Permissions:

* the chmod command allows you to change the permission for reading.writing a file
  + read = 4
  + write = 2
  + execute = 1
  + combinations of these permissions can be summed to produce unique numbers.
    - ex: read + execute = 4 + 1 = 5
    - ex: 755: user (read, write, execute) group (read, execute) others (read, execute)
  + examples:
    - chmod 755 lab1.c
    - assigns the above listed permissions to the document lab1.c
* see class notes online for more examples