

**INSTRUCTOR**

Greg Boyd                      gboyd@ccsf.edu                      http://fog.ccsf.edu/~gboyd                      BATL 462

**OFFICE HOURS**

Mon, Weds 12:30-1:00, Tues, Weds 5:30-6:00, Mon 5:00-6:00 **in BATL 462** or by appointment

**CLASS SECTION**

CRN 31838                      Section 401                      1:10-3:00pm MW    Mar 20(**Mon**) - May 22                      BATL 413

**TEXT BOOKS**

assigned: William Shotts, *The Linux Command-Line*, No Starch Press, 2012 (or the open-source PDF [here](#))

**CLASS GOOGLE GROUP**

<https://groups.google.com/d/forum/ccsf-cs160b>

**COURSE DESCRIPTION**

This is a course in Linux shell scripting. The primary shell we use in the bash shell. The shell constructs taught, however, are applicable to any POSIX-compliant shell.

This course is a significant commitment of time. You should plan to spend an average of 2-5 hours of study and lab time for every hour spent in class for the duration of this course.

**WHO SHOULD TAKE THIS COURSE**

If you are planning on doing significant work on a Linux (or Unix) system, especially at the system administration level, you should take this course. Shell scripts are also used in database and software development work on Linux. Shell scripting is programming. Some previous exposure to programming is helpful. Although this class teaches introductory programming concepts and constructs, the shell does not provide the best environment to learn them.

**GRADES**

Grades will be awarded based on the following breakdown

Assignments	95 points	Quizzes	70 points	Final	70 points	labs	15 points
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Grades will be determined on the basis of total possible points of ~250 pts. Final grades are based on the following:

A	90%	B	80%	C	70%	D	60%
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I will pass around a list from time to time showing the grades I have recorded. Please keep your graded papers until you are satisfied they have been recorded correctly. You should also keep any computer files of a homework assignment until the homework is returned to you.

**QUIZZES AND TESTS**

There will be *two* midterms (quizzes) during the semester, focusing on recent material. You may miss one midterm, but if you do, to make up for it, the next midterm counts double or the weight of the final is increased proportionally. There will also be a **required** cumulative final examination. One standard sheet of paper containing notes on both sides may be brought to midterms. Three standard sheets of paper containing notes may be brought to the final exam. No electronic devices are allowed and **no mechanical pencils** may be used during tests.

**EXERCISE SETS**

A significant number of required additional ungraded exercise sets will be assigned during this course. Although you do not hand these in, they are very important and comprise the meat of the course. Some will have solutions, others are meant for you to do on the machine and test for yourself. Do them! The ungraded exercise sets are the primary source of questions for tests. The web-version of the class syllabus has links to PDFs of the exercise sets.

**TAKING NOTES**

As with a standard college course, you are expected to take notes in class. I do not give out notes on lectures. If you are not in class it is your responsibility to get the information from a classmate.

**ASSIGNMENTS AND LABS**

There will be 3-4 graded assignments during the course. They will be assigned 1-2 weeks prior to their due date. Assignments must be handed in in-class *at the beginning of class* on the due date. **Assignments are not accepted late for full credit. If you turn in an assignment late, it is kept until the end of the semester. At that time it will be considered for a maximum of 50% credit.** Assignments MUST be done on the assigned CCSF system. Specific requirements for assignments are covered in the handout entitled *Assignment Guidelines*.

There will also be 7 lab exercises. They count 3 pts each. Five count in your grade, The remaining two are extra-credit. Labs cannot be made up.

**GROUP WORK**

Two students may work together on an assignment. If you do so, hand in a single copy of the assignment with both students' names, day and time of class on the front. Both students will receive the same grade. The student in whose account the assignment was actually done will transfer it. Both students will be graded on the transferred

copy. If I receive two assignments which are very similar I will not grade either of them. If you want to work together, hand in a single copy as described above. **Extra credit is not available for assignments done in a group.**

### GETTING HELP

This course has a [Google Group](#) that you must join. Postings to the group earn extra-credit points at the end of the semester. Email the list with questions that come up between class sessions. The ACRC lab (3rd floor Batmale hall) also has tutors who have are willing to help with basic Linux. Ask in the lab. I try to make myself as available as possible to my students. When I am available, I am usually in the linux classroom (L413), mainly before and after class (unless there is a class in session). You are welcome to stop by or to otherwise contact me for some help. I will try my best to accommodate you.

### HILLS ACCOUNTS

Within a few days of completing your enrollment for this class, an account will be created for you on our school Linux server (*hills*). If you are adding, it is important that you complete your add as soon as possible. Delaying your add to the class will not be considered an excuse for turning in assignments late. If you had a hills account last semester, your account and password will remain the same. If you are getting a new hills account, your account name will be the same as your CCSF gmail account (if you did not "opt-out"). Your initial password is formed from your birth date - combining the first three letters of the month (*lowercase*) with the two-digit day and the two-digit year followed by a period and the first two characters of your login; e.g., if your gmail account is `scharo11@mail.ccsf.edu`, and your birthday is *Apr 14 1986* your hills login would be `scharo11` and your initial password would be `apr1486.sc` *You should immediately change your initial password.*

Class data files are on hills in the public work area at `/pub/cs/gboyd/cs160b`

### ACCESS TO HILLS

You can access hills either from a computer in the ACRC in Batmale Hall or remotely using ssh. If you access hills from the ACRC you should use the linux machines near the rear exit (see the next section). You may also login from a Windows system, but you must first login to the ACRC Windows network. If you wish to do this, you should take an orientation during the first week of class.

*You can access hills remotely using ssh. Do not use telnet.* The particulars of remote access are your responsibility. The server is `hills.ccsf.edu`. You are also responsible for figuring out how to print your assignments. *It is your responsibility to get these issues worked out in order to complete your assignments on time.*

The ACRC holds a series of three orientation classes on hills and on their Windows network. A schedule is posted in the ACRC. If you are new to hills or the ACRC you should consider attending these sessions.

### ACCESS TO LINUX MACHINES (SPRINGFIELD CLUSTER)

By enrolling in this course you will have an account on the linux machines. These accounts will be created a week or so into the semester as announced in class. The account name and initial password follow the same pattern as your hills account. The linux machines are divided between those in the ACRC and those in the linux classroom. They all share a common set of logins and a common exported file system for home directories. Once on linux, you can use ssh at the command-line to log in to *hills* to access the class public data files.

For security reasons the linux machines are only accessible through **hills** or another local machine. They are not registered via DNS. If you want to reach a linux system from off-campus, you must login to **hills** and ssh using the IP address of a linux machine. These IP addresses are taped to the linux machines in the linux area of the ACRC. You should visit it and make a note of them.

### ADDS DROPS AND ATTENDANCE

You must be present and answer the roll on the first day of class or you will be dropped from this course. **I also may drop (or withdraw) you from the class if you fail to attend two labs in succession without contacting me.**

You should not, however, rely on me to drop you from the course. *Dropping is your responsibility.*

***You will be graded on attendance only for lab credit. Other than the rule above, I will not drop you due to lack of attendance. However, you are responsible for everything that happens in class, whether you are present or not.***

### FINAL EXAM

***You must take the final exam. Failure to do so will result in an F for the course.***

**I reserve the right to change any of these policies at any time during the semester. Any changes will be announced in class or on the class mailing list or Google Group.**