

IS 220 – UNIX System Administration

Course Syllabus and Calendar – Winter 2006

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Brigham Young University Hawaii

1 Course Overview

The computing world seems divided between desktop and server. The prevailing desktop operating system is Microsoft Windows. The prevailing server operating system is Linux or UNIX. It is important for IS students to be familiar with both. This class provides familiarity with the Linux side of that world.

The user interface world is divided between graphical interfaces and command line interfaces. (There are a few others, but those are the big ones.) Graphical interfaces are generally more friendly but less flexible and harder to develop. Command line interfaces are generally more powerful and easier to develop. The desktop world is dominated by graphical interfaces. This class provides familiarity with the command line interfaces students may not have previously seen.

1.1 Prerequisites

If you have completed CS 201, you will have some advantage over students who have not. However, you can make up this small disadvantage through extra study, so I would not call CS 201 a “required” prerequisite. It is more of a suggestion.

1.2 The Course

- **Course Number:** IS 220
- **Title:** UNIX System Administration
- **Web:** <http://colton.byuh.edu/courses/is220/>
- **Course Description:** UNIX Fundamentals are introduced. Includes systems administration and configuration within a network environment. Additional topics include user file administration and software installation. (Prerequisite: CS 201.)

- **Recommended Equipment:** earphones, headphones, or headset suitable for listening to sound from a computer. These are commonly available in the \$10 price range.
- **Recommended Text:** none
- **Class Time:** MWF 2:00–2:50 PM
- **Final Exam:** Fri 21 Apr, 3:00–6:00 PM
- **Classroom:** GCB 147

1.3 The Instructor

- **Instructor (me):** Don Colton
- **My email:** don@colton.byuh.edu
- **My Office:** GCB 130 B
- **Office Hours:** Daily 11:00–11:50 AM

1.4 Tutoring

- **T.A.:** Barry Bjork, or ask CS tutors
- **T.A. Hours:** Posted Evenings
- **T.A. Location:** usually GCB 143

1.5 My Open-Door Policy

My office hours are shown above. You can contact me by email to make an appointment at another time. I also have an open-door policy: **If my door is open (even just a bit) feel free to knock and come in.**

1.6 Subject to Change

It is possible that I will revise some aspects of the course as we go along. Any changes I make are likely to be to your advantage. If any of my changes seems unfair to you, let me know. I will try to correct it.

1.7 Special Needs

Brigham Young University Hawaii is committed to providing a working and learning atmosphere, which

reasonably accommodates qualified persons with disabilities. If you have any disability that may impair your ability to complete this course successfully, please contact the students with Special Need Coordinator, Leilani A'una at 293-3518. Reasonable academic accommodations are reviewed for all students who have qualified documented disabilities. If you need assistance or if you feel you have been unlawfully discriminated against on the basis of disability, you may seek resolution through established grievance policy and procedures. You should contact the Human Resource Services at 780-8875.

1.8 Preventing Sexual Harassment

Title IX of the education amendments of 1972 prohibits sex discrimination against any participant in an educational program or activity that receives federal funds, including Federal loans and grants. Title IX also covers student-to-student sexual harassment. If you encounter unlawful sexual harassment or gender-based discrimination, please contact the Human Resource Services at 780-8875 (24 hours).

2 Grading

There are two ways to earn your grade in this class: TestOut/Linux+ and Red Hat Academy.

2.1 TestOut Method

Using the TestOut method, the only way to get an A is to pass the CompTIA Linux+ test. There are no grades of A-. **Free Test Voucher:** If you get three TestOut scores of 95 or above, and you agree to take the CompTIA Linux+ Exam and bring me your results, I will give you one voucher to take the test. The IS department measures itself in part by the number of students that pass certification tests. It is a form of department assessment, so the department pays for your test.

Grading for B+ and lower is based on a point scale.

94+	B+
86-93.9	B
80-85.9	B-
74-79.9	C+
66-73.9	C
60-65.9	C-
54-59.9	D+
46-53.9	D
40-45.9	D-
0-39.9	F or UW

Your entire grade is based on the TestOut score you earn on the Linux+ "ExamSim" given under controlled circumstances, for example during the Final Exam time for this class. You are strongly encouraged to take the ExamSim many times before you face it on Final Exam day.

2.2 Linux+ Certification

To get an A grade you must pass the CompTIA Linux+ Certification exam. To prepare for this test we study a fifty-hour online course developed by TestOut. The course includes both reading and listening to short video clips. You can do it from the GCB, the library, and other places on campus.

CompTIA Linux+ is a vendor-neutral certification exam. A vendor is a company that sells things, in this case computer equipment or software. Examples include Microsoft, Cisco, Novell, and Red Hat. Many certification exams are vendor-specific, and test your abilities with, for example, Cisco equipment. CompTIA's Linux+ exam covers information relevant to many or all vendors.

2.3 Preparing for Linux+

The Linux+ exam includes lots of memorization and vocabulary, and some "derived knowledge."

Note on overtraining: Memorize the knowledge, not the answers. There is a temptation to simply recognize the question by its shape or a few words in it, and to know that the third bubble is correct. This is called "overtraining." Avoid that temptation. It will not help you on the Linux+ exam. You should read each question. Think about it. Read the answers. Then mark the correct answer.

2.4 Red Hat Academy Method

There are eleven workbooks in the RHA 030 course. Ten of these have tests. There are Lab Tests that require you to perform certain actions. There are

Bubble Tests that require you to select answers from a multiple-choice list. Each test is worth 100 points. Each workbook has two tests. That makes a total of 20 tests, for 2000 points. Grading is done on a percentage basis as follow.

93+	A
90-92.9	A-
87-89.9	B+
83-86.9	B
80-82.9	B-
77-79.9	C+
73-76.9	C
70-72.9	C-
67-69.9	D+
63-66.9	D
60-62.9	D-
0-59.9	F or UW

It is likely that I will lower these ranges before calculating final grades, but I cannot predict how much they may change.

Studying the Red Hat Academy materials prepares you for the next Red Hat class which prepares you for the RHCT certification.

3 Daily Class Routine

Class is organized around the Red Hat Academy. Certain scheduled days will be designated as test days. On these days, you can take workbook exams. You are allowed a combined time of two hours to complete both exams.

On the class day before an exam, I will review the material to be covered in that exam, and will answer questions.

Besides that, most of your class time will be spent quietly working on Red Hat Academy or TestOut. Headphones are required equipment for TestOut.