Fresno City College

CIT 59

Systems and Network Administration/Computer Operating Systems

An Online Course

Spring 2023

Instructor: Buddy Spisak Online Office Hours: Mon. – Thurs. 1:30 to 2:30 p.m.

Voice Mail: (916) 691-7062
Email: buddy.spisak@fresnocitycollege.edu The turnaround time for responding to most emails is about one to two days. Be sure to include your name and the course number in each email so I can identify who you are and what the email is about.
Course Web page: https://scccd.instructure.com
Instructor Web page: http://crc.losrios.edu/spisakj/

Prerequisites: None
Corequisite: None
Advisory: CIT 48A and 48B
Lecture/Lab: Fully online (40310) Wednesday 6 to 8 p.m.

Accepted for Credit: CSU
Class Credits: 3 units

Textbook: No textbook is required for this course. All the reading materials are available via the Red Hat Academy at https://rha.ole.redhat.com/rha/app

Labs: The labs are done through NDG Netlabs at https://netlabve5.coastline.edu

Supplies: Ear buds or a headset would be beneficial when listening to videos and a camera for Zoom conferencing.

A flash drive is recommended (at least 16GB, but 32GB is preferred) to store your work for the class**.**

Course Description:

Provides a technical overview of the Linux operating system, including hands-on experience with commands, files, and tools. Topics include basic Linux commands, files and directories, text editing, electronic mail, pipes and filters, X Windows, shell environments, and scripting. Required for students wishing to pursue the Linux track preparing for industry certification. C-ID: ITIS 155

Student Learning Outcomes and Course Objectives:

- Navigate and manage the Linux file system (SLO 1).
- Execute Linux commands from the shell using pipelines and redirection to control the flow of data to and from various commands (SLO 2).
- Configure the Linux operating system to meet organizational policies and goals (SLO 3).

Upon completion of this course, the student will be able to:

1. Execute approximately 50 of the most common Linux commands from the keyboard using correct command syntax.
2. Use online manual pages to determine what commands are required to perform a particular task and how to use those commands.
3. Navigate the Linux file hierarchy by changing the current working directory to any predefined location.
4. Manage multiple file types by viewing, copying, moving, renaming, creating, and removing files and directories.
5. Use a Linux based text editor to create and edit configuration and scripting files.
6. Use the Linux mail environment to write, send, receive, and save electronic messages.
7. Ensure the security and privacy of user files by setting and changing file and directory permissions.
8. Use the Linux features of file redirection and pipelines to control the flow of data to and from various commands.
9. Create, remove, and schedule Linux processes to maintain efficient and steady use of the central processing unit.
10. Transfer data from one Linux system to another and print a hard copy of textual data.
11. Select an appropriate Linux shell environment to fit the needs of a user and customize the configuration files for that environment.
12. Write a simple shell script application that allows a user to select from a menu system of multiple functions.

Methods of Measuring Student Learning Outcomes:

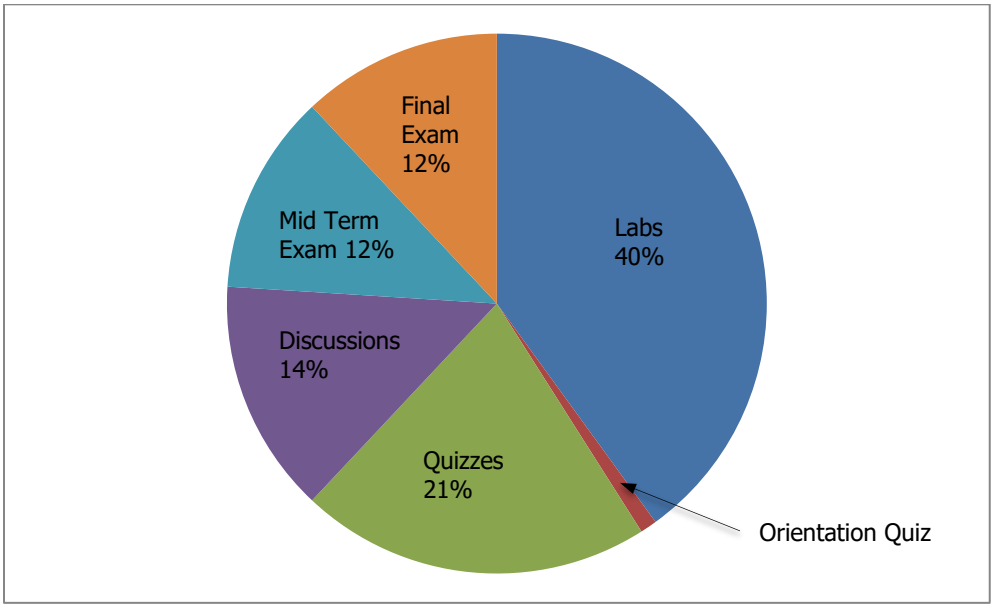
- You will demonstrate knowledge of course concepts through class discussions and achievement on quizzes and a final examination.
- You will demonstrate competence in the coursework by completing lab work and participating in discussions during the semester.

Student Obligations:

- **Attendance**: Since this course is online, it is important to participate frequently in the class.
- **Late Work**: Unless noted all assignments are due on Sunday by midnight each week. Late work will be accepted ONLY if you have contacted me prior to the due date either by email or voice mail. In general, late work is due the next week, and no late assignments may be turned in after one week from the original due date regardless of the reason. For every day an assignment is late, you will lose 10% of its grade.
- **Due Dates**: Unless noted, all assignments will be submitted in Canvas. If, for any reason, you cannot access Canvas or are unable to submit the assignment on time, please email it to me instead so that you are not penalized for being late. Quizzes and the discussion items cannot be taken past their due dates. If you miss a quiz and you want to make up points, you can take advantage of the extra credit assignments posted in Canvas. Everyone is welcome to work on the extra credit assignments. Typically, they are five to ten points each, depending on the difficulty of the assignment.

- **Labs**: There will be seven labs credited for homework for the class. The due dates are in the **SCHEDULE** portion of this handout. We will spend a lot of time working on lab activities. Each lab has a set of review questions that you will need to answer in Canvas to receive points for that assignment.
- **Discussions**: I want everyone to take a proactive approach to learning this material. This includes using the discussion feature in Canvas to ask questions and answer other students' questions. I will also post questions each week that you can answer to further your understanding of the material. I expect two postings each week unless otherwise noted.
- **Language Matters:** Part of communicating effectively with one another involves communicating correctly with one another. This is not an English class; however, I will be looking at and commenting on the basic accuracy of your written English, such as sentence boundaries, spelling, and other basic grammar issues. While you will not fail the class because of your English, you may lose some points for frequent and repeated errors. Keep in mind that your use of English can influence your readers positively—or negatively.
- **Mid-term and Final Exams**: These exams will be administered through Canvas.
- **Plagiarism Policy**: It is inappropriate, and a violation of academic policy, to copy information from any source (including, but not limited to, textbooks, magazine articles, newspaper articles and internet articles) without giving proper credit to the author by using standard quotation procedures such as in-line quotes, footnotes, endnotes, etc. Quotes may not exceed 25% of the assignment's total length. You will receive no credit (0 points) for any assignment that copies any material from any other source without giving proper credit to the author(s). Repeat offenders of this policy are subject to academic discipline as outlined in the policies published by the college.
- **Cheating**: Students who cheat will receive a failing grade for the course. (See the College catalogue for 2021-2022 on p. 62-63 posted on the college website (https://www.fresnocitycollege.edu/uploaded-files/documents/admissions-aid/catalogs/2021-2022_catalog.pdf.)
- **Email**: Every student will be required to have an email account. If you do not have an email account, the college provides free email accounts for all current students.
- **Email etiquette**: I will not tolerate rude and demeaning comments or emails to anyone in this class. Please keep your comments and emails topic-related. If I determine that a comment or email to anyone else in the class is rude or demeaning, I will warn you once. If your behavior continues to be unacceptable, I will refer you to the administration of the college for disciplinary action.
- **Personal belongings**: All cell phones, beepers, pagers, etc. should be turned off or set to vibrate during any of the online lectures/labs.
- **Disabilities:** If you have a documented disability and wish to discuss academic accommodations, please contact me or contact the Office of Disabled Student Programs and Services at 559-442-8237 as soon as possible.
- **Canvas:** This class utilizes a product called "Canvas." It is highly recommended that you check the website frequently for scheduling updates and homework assignments. Most of the homework assignments and quizzes will be done on Canvas.
- **Online Course Responsibilities:** This course requires significant self-motivation. You must not get behind. Labs and weekly assignments can take up to 11 hours to finish. Please don't try to finish them in one day. Not all activities are created equal. Some may take a bit longer than others. You would normally spend 5.5 hours per week in class for this course for a total of 162 hours. Allow yourself at least 9 hours per week to complete the activities online, including the time spent writing the class discussion postings. You should plan additional time to read the textbook and study for the quizzes. Some people believe that an online format provides a much easier way to study this subject than an on-campus framework because they love to read and avoid the parking problems. Others feel very intimidated at first. Be patient as you work your way through the activities.
- **Online Access via Zoom:** This class utilizes a product called "Zoom." It is highly recommended that you are in a quiet room without distractions, have stable internet access, and use a video camera with a quality microphone so that you are seen and heard by everyone.

Grading:



Course Topic		Points	Total	Approximate % the of Grade
Labs (7)		50	350	40
Orientation Quiz (1)		10	10	1
Quizzes (6)		30	180	21
Discussions (6)		20	120	14
Mid Term Exam (1)		100	100	12
Final Exam (1)		100	100	12

Point System: There are 860 total assigned points.

Grade Ranges: A=774-860, B=688-773, C=602-687, D=516-601, F=0-515

Schedule: It is tentative and can change during the term. All changes will be located under the "Announcements" section in Canvas for the course.

	Day:		Lecture/Lab Schedule:	Assignment Due:	Due Date (By Midnight):
Week 1	Wed.	3/15	Orientation and Introductions	View the Online Orientation	Sun., Mar. 19
			RH124 Ch 1: Getting Started with Red Hat Enterprise Linux RH124 Ch 2: Accessing the Command Line	Orientation Disc.	
			RH124 Ch 3: Managing Files from the Command Line RH124 Ch 4: Getting Help in Red Hat Enterprise Linux	Orientation Quiz	
			Lab #1		
Week 2	Wed.	3/22	RH124 Ch 5: Creating, Viewing, and Editing Text Files RH124 Ch 6: Managing Local Users and Groups	Disc. #1 (Ch. 1-4)	Sun., Mar. 26
			RH124 Ch 7: Controlling Access to Files RH124 Ch 8: Monitoring and Managing Linux Processes	Lab Review #1	
			Lab #2	Quiz #1 (Ch. 1-4)	
Week 3	Wed.	3/29	RH124 Ch 9: Controlling Services and Daemons RH124 Ch 10: Configuring and Securing SSH	Disc. #2 (Ch. 5-8)	Sun., Apr. 2
			RH124 Ch 11: Analyze and Store Logs RH124 Ch 12: Managing Networking	Lab Review #2	
			Lab #3	Quiz #2 (Ch. 5-8)	
			Spring Break from April 3 to 7		
			Finishing up the first half of the course		
Week 4	Wed.	4/12	RH124 Ch 13: Archive and Transfer Files RH124 Ch 14: Installing and Updating Software Packages	Disc. #3 (Ch. 9-12)	Sun., Apr. 16
			RH124 Ch 15: Accessing Linux File Systems RH124 Ch 16: Analyzing Servers and Getting Support	Lab Review #3	
			Mid Term Exam (Chapters 1-16)	Quiz #3 (Ch. 9-12)	
			Lab #4		
Week 5	Wed.	4/19	RH134 Chapter 1: Improving Command-line Productivity RH134 Ch 2: Scheduling Future Tasks	Disc. #4 (Ch. 13-16)	Sun., Apr. 23
			RH134 Ch 3: Tuning System Performance RH134 Ch 4: Managing SELinux Security	Lab Review #4	
			Lab #5	Quiz #4 (Ch. 13-16)	
Week 6	Wed.	4/26	RH134 Ch 5: Managing Basic Storage RH134 Ch 6: Managing Basic Stack	Midterm Exam Disc. #5 (Ch. 1-4)	Sun., Apr. 30
			RH134 Ch 7: Accessing Network-Attached Storage RH134 Ch 8: Controlling the Boot Process	Lab Review #5	
			Lab #6	Quiz #5 (Ch. 1-4)	
Week 7	Wed.	5/3	RH134 Ch 9: Managing Network Security RH134 Ch 10: Installing Red Hat Enterprise Linux	Disc. #6 (Ch. 5-8)	Sun., May 7
			RH134 Ch 11: Running Containers RH134 Ch 12: Comprehensive Review	Lab Review #6	
			Lab #7	Quiz #6 (Ch. 5-8)	
			Finishing up the second half of the course		
Week 8	Wed.	5/10	Final Exam	Lab Review #7	Sun., May 14
Week 9	Tues.	5/17	What is next after this class? meeting		All work needs to be turned in May 19.