Credit Hours: 3

Contact Hours: This is a 3-credit course, offered in accelerated format. This means that 16 weeks of material is covered in 8 weeks. The exact number of hours per week that you can expect to spend on each course will vary based upon the weekly coursework, as well as your study style and preferences. You should plan to spend 14-20 hours per week in each course reading material, interacting on the discussion boards, writing papers, completing projects, and doing research.

Faculty Information: Faculty contact information and office hours can be found on the faculty profile page.

COURSE DESCRIPTION AND OUTCOMES

COURSE DESCRIPTION:

This course presents advanced network and systems concepts to the student utilizing Linux. Students gain an understanding of the basics of networking routing and switching. They also examine and practice the concepts and skills necessary to function as a system administrator in a Linux environment. It prepares students for the Linux+ certification exam.

COURSE OVERVIEW:

Topics covered in this course include Linux system architecture, installation, and package management. You will gain a working knowledge of industry best practices in using Linux systems including managing devices and file systems, installing and configuring user interfaces and systems, system security, and managing users, and groups. You will also demonstrate competency in the application of Linux operating systems and network concepts as well as in industry practices by completing hands-on lab simulations (LabSim) and scenario-based assessment assignments. Finally, you will prepare to take the CompTia Linux+ examinations (LXO-103 & LXO-104) upon completion of all course materials.

COURSE LEARNING OUTCOMES:

1. Demonstrate the ability to manage integral aspects of Linux hardware, installation, and security technology.

2. Summarize the management of devices and design of hard disk layouts and file system components in Linux environment.

3. Show how to use system-level scripting for automation and administration.

4. Evaluate an Apache web server functions and operations.

5. Apply system monitoring, networking tools, and administering systems and explore monitoring tools in Linux systems.

PARTICIPATION & ATTENDANCE

Prompt and consistent attendance in your online courses is essential for your success at CSU-Global Campus. Failure to verify your attendance within the first 7 days of this course may result in your withdrawal. If for some reason you would like to drop a course, please contact your advisor.

Online classes have deadlines, assignments, and participation requirements just like on-campus classes. Budget your time carefully and keep an open line of communication with your instructor. If you are having technical problems, problems with your assignments, or other problems that are impeding your progress, let your instructor know as soon as possible.

COURSE MATERIALS

Required:

- Blum, R. & Bresnahan, C. (2015). *CompTIA Linux+ Powered by Linux Professional Institute Study Guide: Exam LX0-103 and Exam LX0-104* (3rd ed.). Indianapolis, IN: Sybex, A Wiley brand. ISBN-13: 978-1-119-02121-6

- TestOut Linux Pro. ISBN-13: 978-1-935080-38-1
  Description: http://www.testout.com/courses/linux-pro

 TestOut prepares you for:
  - TestOut Linux Pro
  - CompTIA Linux+ (LX0-103)
  - CompTIA Linux+ (LX0-104)

  TestOut is paid for via your tuition for this course. When you click the TestOut Link, your CSU-Global email is registered with TestOut. Should you drop the class, CSU-Global will notify TestOut and you will be refunded.
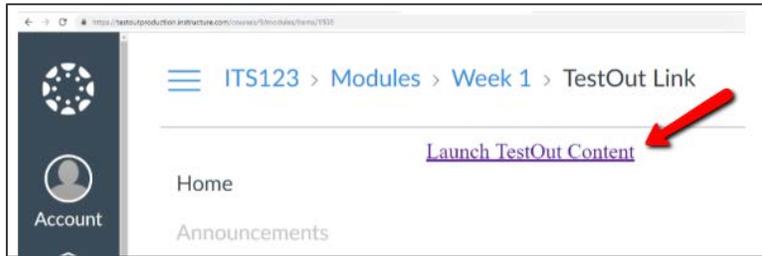
  You are encouraged throughout the course to use the TestOut tool for Required Readings, Critical Thinking, and Check Your Understandings to prepare for the CompTia Linux+ examinations (LXO-103 & LXO-104).

  Here's how to access TestOut via Canvas:

1. Select **Modules** from the left menu. Under Week 1, click the **TestOut Link**.
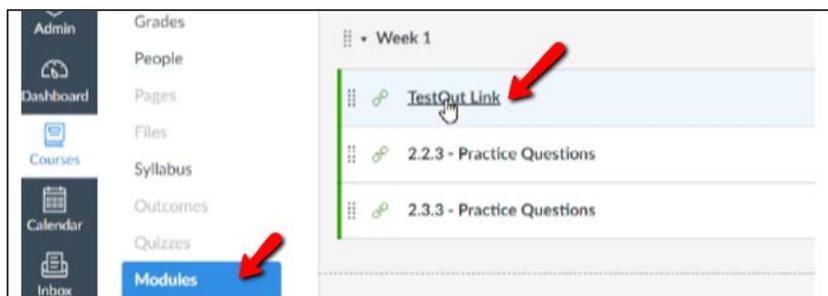
2. Click the **Launch TestOut Content** link.

Suggested:

None

NOTE: All non-textbook required readings and materials necessary to complete assignments, discussions, and/or supplemental or required exercises are provided within the course itself. Please read through each course module carefully.

COURSE SCHEDULE

Due Dates

The Academic Week at CSU-Global begins on Monday and ends the following Sunday.

- **Discussion Boards:** The original post must be completed by Thursday at 11:59 p.m. MT and peer responses posted by Sunday 11:59 p.m. MT. Late posts may not be awarded points.
- **Opening Exercises:** Take the Opening Exercise before reading each week's content to see which areas you will need to focus on. You may take these exercises as many times as you need. The Opening Exercises will not affect your final grade.
- **Mastery Exercises:** Students may access and retake Mastery Exercises through the last day of class until they achieve the scores they desire.
- **Critical Thinking:** Assignments are due Sunday at 11:59 p.m. MT.

WEEKLY READING AND ASSIGNMENT DETAILS

MODULE 1

Readings

- Sections 1.1, 1.3, 1.5, 1.8, 1.9, 1.11, 2.1, 2.2, 2.3 in *Testout LabSim Linux+ LPIC-1*
- Chapter 1 in *CompTIA Linux+™ Powered by Linux Professional Institute Study Guide Exam LX0-103 and Exam LX0-104, 3rd ed.*
- Venezia, P. (2016). Linux at 25: How Linux changed the world. *InfoWorld.com.*

Opening Exercise (0 points)

Discussion (25 points)

Mastery Exercise (10 points)

Critical Thinking (60 points)

Choose one of the following two assignments to complete this week. Do not do both assignments. Identify your assignment choice in the title of your submission.

Option #1: Install Linux and explore the Linux Shell

In this assignment, you will setup Linux system on your system by downloading Linux from the internet to a USB 8+GB memory stick or you could use Linux/VMWare Player system. (See Module 1 Interactive Lecture, For Your Success section, for more instruction on Linux and VMWare.)

Instructions:
- Complete both parts, below.
- Write a report documenting your processes, challenges, and results.
- Explain what commands you used to complete each of the tasks. Include the complete command in description.
- Explain how you chose the appropriate command along with the switches to complete each task.
- Include a screenshot of completed tasks and output.

Submission Requirements:
- Your well-written paper should be one to two pages in length not including the required cover and references pages.
- Format your paper, where appropriate, according to the *CSU-Global Guide to Writing and APA*.

Part I:
1. Download Linux from the internet to your system by using a USB 8+GB memory stick or Linux/VM system (if you have it).
2. Write a one-page report on: the processes you used, the steps you took, and the operation commands used. Include screenshots of your access and any screenshot(s) of other pages you accessed.

Part II:

Follow the instructions below and write a one- to two-page essay.

1. Your goal with this exercise is to explore and compare the Linux shells that are available in Linux. List and describe the Linux shells that are available on the Linux machine that you installed in part one of this assignment.
2. Explain what steps you took to find the shells that are available and differences between the shells. Provide your answer.
3. Use one of the available shells to complete the following tasks using the shell commands. (Take a screenshot of each command and the results.)
4. Create a directory on the root called Module1. Provide your answer.
5. Add a user to the system. Name the user Linus. Provide your answer.
6. Change the password for the user that you added. Provide your answer.
7. Display names of files and directories in the `/etc` directory including file size, permissions, owner, and modified date. Provide your answer.
8. Display the kernel running on the system including kernel version number, version date, machine hardware name operating system and operating system architecture. Provide your answer.

Option #2: Install Linux and explore the File System Hierarchy

In this assignment, you will setup Linux system on your system by downloading Linux from the internet to a USB 8+GB memory stick or you could use Linux/VMWare Player system. (See Module 1 Interactive Lecture, For Your Success section, for more instruction on Linux and VMWare.)

Instructions:
- Complete both parts that follow.
- Write a report documenting your processes, challenges, and results.

Submission Requirements:
1. Your well-written paper should be one to two pages in length not including the required cover and references pages.
2. Format your paper according to the *CSU-Global Guide to Writing and APA*.

Part I:
1. Download Linux from the internet to your system by using a USB 8+GB memory stick or Linux/VM system (if you have it).
2. Write a one-page report on:
   - the processes you used,
   - the steps you took, and
   - the operation commands used.
3. Include screenshots of your access and any screenshot(s) of other pages you accessed.

Part II:
Follow the instructions below, and write a one- to two-page essay.

The goal of this exercise is for you to compare the Linux directory structure of your individual system with the FHS and determine which parts of your file system are not covered by the standard and the possible reasons for this.

The FHS is a standard that consists of a set of guidelines for file and directory placement under UNIX-like operating systems. The purpose of these guidelines is to support interoperability and uniformity in UNIX-like operating systems.

In the FHS all files and directories are located in the root directory "/" even if they are stored on other physical devices. Some of these directories may or may not be present on a Linux system depending on what is installed and what isn't (X Window System for example).

1. In a web browser, navigate to:
   `www.pathname.com/fhs`
2. Download the FHS 2.3 PDF document from `www.pathname.com/fhs`
3. Look at the table of contents on pages iii and iv (specifically, look at section 3, "The Root File System"). You'll notice there is a listing of different directories as outlined by the FHS (see listing below):

```
/bin
/boot
/dev
/etc
/etc/opt
/etc/X11
/etc/sgml
/etc/xml
/home
/lib
/media
/mnt
/opt
/root
/sbin
/srv
/tmp
```

4. On your Linux machine, navigate to the root directory at the root command prompt, type: `cd /`
5. From the root directory, compare the directories listed in the FHS document to your Linux directories. Provide your answer.
6. Describe what compliance with the FHS standard means, including an overview of the standard. Be sure to indicate your impression of the most important issues for complying with the FHS standard.
7. Additionally, as part of your essay, include a description of the parts of the file system on your machine that may not be covered by the standard. The following questions may help guide your inquiry and inform your essay:
   a. Does your Linux directory listing match the FHS document?
   b. What are the differences, if any?
   c. What is your impression of why the file system hierarchy on your system is different?
   Include a screenshot or file dump of the Linux directories from the root, pasted into the Word document submitted for this assignment. (This is to demonstrate which directories your system has—you are comparing the file hierarchy from your system to the guidelines.)

Portfolio Project Reminder

Take some time to review the Portfolio Project options, assignment requirements, and rubric, which can be found in Module 8. Choose one of the two options. Then, review Week 2 Portfolio Project Milestone assignment, which is worth 25 points. The final Portfolio Project will be due at the end of the course before midnight of Week 8.

You are encouraged to visit the CSU-Global Library for additional resources or contact the CSU-Global Librarian at Library@CSUGlobal.edu. The Purdue Online Writing Lab's APA Formatting and Style Guide is also a great resource for additional information.

If you have questions, contact your instructor sooner rather than later so that you have ample time to discuss the assignment.

Readings

·   Chapters 5 & 6 in *CompTIA Linux+™ Powered by Linux Professional Institute Study Guide Exam LX0-103 and Exam LX0-104* (3rd ed.)

·   Section 3.1, 3.2 3.3, 3.4, 3.5, 4.1, 4.2 & 4.3 in *Testout LabSim Linux+ LPIC-1*

Opening Exercise (0 points)

Discussion (25 points)

Mastery Exercise (10 points)

Critical Thinking (60 points)

Choose one of the following two assignments to complete this week. Do not do both assignments. Identify your assignment choice in the title of your submission.

Option #1: Hands-on project - GRUB Boot Loader

In this assignment, you will set up Linux system on your system by downloading Linux from the Internet to a USB 8+GB memory stick, or you could use Linux/VMWare Player system. See Module 1 for the download information.

Note: You will need to download and install fedora 28.

For this assignment, you will configure the GRUB boot loader.

Instructions:

- Conduct the list of actions in the **Module02_CT_Opt1.docx** worksheet. Make notes on EACH activity recording your processes, challenges, and results. These notes will then become the substance of your report.
- Write a report that includes screenshots and your explanations and descriptions of the actions listed in the worksheet.
- You may wish to use the numbers of the questions as subheadings in your paper to ensure you have addressed each action.

Submission Requirements:

- Your well-written paper should be two to four pages in length not including the required cover and references pages.
- Format your paper, where appropriate, according to the *CSU-Global Guide to Writing and APA*.

Option #2: Hands-on Project – Systemctl Command and Managing Runlevels

In this assignment, you will set up Linux system on your system by downloading Linux from the Internet to a USB 8+GB memory stick, or you could use Linux/VMWare Player system. See Module 1 for the download information.

Note: You will need to download and install fedora 28.

For this assignment, you will configure the GRUB boot loader.

Instructions:

- Conduct the list of actions in the **Module02_CT_Opt2.docx** worksheet. Make notes on EACH activity recording your processes, challenges, and results. These notes will then become the substance of your report.
- Write a report that includes screenshots and your explanations and descriptions of the actions listed in the worksheet.

- You may wish to use the numbers of the questions as subheadings in your paper to ensure you have addressed each action.

Submission Requirements:
- Your well-written paper should be two to four pages in length not including the required cover and references pages.
- Format your paper according to the *CSU-Global Guide to Writing and APA*.

Portfolio Milestone (25 points)

Options #1 and #2: Portfolio Topic

Submit your Portfolio Topic to your instructor for preliminary approval. Provide reasons for your choice. Your submission should contain no more than one page of content, framed by a cover page and references page. This assignment is required and is worth 25 points.

MODULE 3

Readings
·   Chapters 2 & 7 in *CompTIA Linux+™ Powered by Linux Professional Institute Study Guide Exam LX0-103 and Exam LX0-104* (3rd ed.)
·   Sections 5.1, 5.2, 5.3, 5.4, 6.1, 6.2, & 6.3 in *Testout LabSim Linux+ LPIC-1*

Opening Exercise (0 points)

Discussion (25 points)

Mastery Exercise (10 points)

Critical Thinking (60 points)
Choose one of the following two assignments to complete this week. Do not do both assignments. Identify your assignment choice in the title of your submission.

Option #1: Hands-on Project – Software Management
In this assignment, you will set up Linux system on your system by downloading Linux from the Internet to a USB 8+GB memory stick, or you could use Linux/VMWare Player system. See Module 1 for the download information.
Note: You will need to download and install fedora 28.

Instructions:
- Conduct the list of actions in the **Module03_CT_Opt1.docx** worksheet. Make notes on EACH activity recording your processes, challenges, and results. These notes will then become the substance of your report.
- Write a report that includes screenshots and your explanations and descriptions of the actions listed in the worksheet.
- You may wish to use the numbers of the questions as subheadings in your paper to ensure you have addressed each action.

Submission Requirements:

- Your well-written paper should be two to four pages in length not including the required cover and references pages.
- Format your paper, where appropriate, according to the *CSU-Global Guide to Writing and APA*.

Option #2: Hands-on project – Software Management, Linux on Your System

In this assignment, you will set up Linux system on your system by downloading Linux from the Internet to a USB 8+GB memory stick, or you could use Linux/VMWare Player system. See Module 1 for the download information.

Note: You will need to download and install fedora 28.

Instructions:
- Conduct the list of actions in the **Module03_CT_Opt2.docx** worksheet. Make notes on EACH activity recording your processes, challenges, and results. These notes will then become the substance of your report.
- Write a report that includes screenshots and your explanations and descriptions of the actions listed in the worksheet.
- You may wish to use the numbers of the questions as subheadings in your paper to ensure you have addressed each action.

Submission Requirements:
- Your well-written paper should be two to four pages in length not including the required cover and references pages.
- Format your paper, where appropriate, according to the *CSU-Global Guide to Writing and APA*.

Portfolio Project Reminder

Next week, Week 4, you have due a Portfolio Project Milestone. This deliverable is worth 25 points to your final Portfolio Project. Remember that you have two Portfolio options to choose from, and you must decide by next week which option you will complete. You complete that option for the Milestone next week as well.

You are encouraged to visit the CSU-Global Library for additional resources or contact the CSU-Global Librarian at Library@CSUGlobal.edu. The Purdue Online Writing Lab's APA Formatting and Style Guide available at http://owl.english.purdue.edu/owl/resource/560/1/ is also a great resource for additional information.

If you have questions, contact your instructor sooner rather than later so that you have ample time to discuss the assignment.

MODULE 4

Readings
- Chapter 3 & 4 in *CompTIA Linux+™ Powered by Linux Professional Institute Study Guide Exam LX0-103 and Exam LX0-104 (3rd ed.)*
- Sections 7.1, 7.2, 7.3, 7.4, 7.5, 7.6, 7.7, 7.8, 8.1, & 8.2 in *Testout LabSim Linux+ LPIC-1*

Opening Exercise (0 points)

Discussion (25 points)

Mastery Exercise (10 points)

Critical Thinking (60 points)

Choose one of the following two assignments to complete this week. Do not do both assignments.
Identify your assignment choice in the title of your submission.

Option #1: Hands-on Project – Disk and File System Management

In this assignment, you will set up Linux system on your system by downloading Linux from the Internet
to a USB 8+GB memory stick, or you could use Linux/VMWare Player system. See Module 1 for the
download information.
Note: You will need to download and install fedora 28.

Instructions:

- Conduct the list of actions in the **Module04_CT_Opt1.docx** worksheet. Make notes on EACH
  activity recording your processes, challenges, and results. These notes will then become the
  substance of your report.
- Write a report that includes screenshots and your explanations and descriptions of the actions
  listed in the worksheet.
- You may wish to use the numbers of the questions as subheadings in your paper to ensure you
  have addressed each action.

Submission Requirements:

- Your well-written paper should be two to four pages in length not including the required cover
  and references pages.
- Format your paper, where appropriate, according to the *CSU-Global Guide to Writing and APA*.

Option #2: Hands-on project – Disk and File System Management

In this assignment, you will set up Linux system on your system by downloading Linux from the Internet
to a USB 8+GB memory stick, or you could use Linux/VMWare Player system. See Module 1 for the
download information.

Instructions:

- Conduct the list of actions in the **Module04_CT_Opt2.docx** worksheet. Make notes on EACH
  activity recording your processes, challenges, and results. These notes will then become the
  substance of your report.
- Write a report that includes screenshots and your explanations and descriptions of the actions
  listed in the worksheet.
- You may wish to use the numbers of the questions as subheadings in your paper to ensure you
  have addressed each action.

Submission Requirements:

- Your well-written paper should be two to four pages in length not including the required cover
  and references pages.
- Format your paper, where appropriate, according to the *CSU-Global Guide to Writing and APA*.

Portfolio Milestone (25 points)

Option #1: Local Linux – Global Organization

Review the Portfolio Project in the Week 8 folder.

You are hired to plan and implement setting up a local Linux environment for a global organization. The organization's global offices have many computers and devices connected to the main office (headquarters) with an access to a cloud-based environment. The organization also uses cloud-based environment, and your local Linux environment is connected to the cloud environment of the organization.

For this assignment, provide a title and table of contents for your Portfolio Project, due in Week 8.

Option #2: Local Linux – Single Office
Review the Portfolio Project in the Week 8 folder.
You are hired to plan and implement setting up a local Linux environment for a single office without an access to a cloud-based environment. The office has five other computers connected on a local network with Internet access.

In this module, you will provide a title and table of contents for your Portfolio Project, due in Week 8.

MODULE 5

Readings
·   Chapters 1, 7, & 9 in *CompTIA Linux+™ Powered by Linux Professional Institute Study Guide Exam LX0-103 and Exam LX0-104 (3rd ed.)*
·   Sections 9.1, 9.2, 9.3, 9.4, 9.5, 10.1, 10.2, 10.3 in *Testout LabSim Linux+ LPIC-1*

Opening Exercise (0 points)

Discussion (25 points)

Mastery Exercise (10 points)

Critical Thinking (65 points)
Choose one of the following two assignments to complete this week. Do not do both assignments. Identify your assignment choice in the title of your submission.

Option #1: Hands-on Project – Monitoring System Processes (65 points)
Submission Requirements:
- Your well-written paper should be two to four pages in length not including the required cover and references pages.
- Format your paper according to the *CSU-Global Guide to Writing and APA*.

Procedures:
1.   Explain what Linux processes are and how to monitor them on a Linux system.
2.   Using the Linux shell run two of the process monitoring utilities that are available in Linux.
     a.   Describe the output.
     b.   Include screenshots of the resulting output of each utility.
     c.   Describe the differences between each of these utilities and a scenario where it would be necessary to utilize one these utilities to monitor Linux processes. Provide screenshots.

Submission Requirements:

- Your well-written paper should be two to four pages in length not including the required cover and references pages.
- Format your paper according to the *CSU-Global Guide to Writing and APA*.

Option #2 Hands-on Project – Writing a shell script to automate tasks in Linux

Submission Requirements:

- Your well-written paper should be two to four pages in length not including the required cover and references pages.
- Format your paper, where appropriate, according to the *CSU-Global Guide to Writing and APA*.

Procedures:

1. Write a shell script that prints out the kernel information about the version of Linux that you are running, users currently logged in and processes that are running.
2. Explain the steps you took to create the script. Include all the lines of the script in your paper and screenshots of the output when the script is run. Discuss any challenges you had developing the script. This might include which commands to use in the script and any permission issues encountered.
3. Explain how this shell script and other types of scripts could be utilized by system administrators in an enterprise network environment. Provide a possible script that could produce the required results and provide a screenshot.

MODULE 6

Readings

·   Chapter 8 in *CompTIA Linux+™ Powered by Linux Professional Institute Study Guide Exam LX0-103 and Exam LX0-104* (3rd ed.)
·   Sections 11.1, 11.2, 11.3, 11.4, 11.5 & 11.6 in Testout LabSim Linux+ LPIC-1

Opening Exercise (0 points)

Discussion (25 points)

Mastery Exercise (10 points)

Critical Thinking (65 points)

Choose one of the following two assignments to complete this week. Do not do both assignments. Identify your assignment choice in the title of your submission.

Option #1: Hands-on project – System Monitoring & Networking

In this assignment, you will set up Linux system on your system by downloading Linux from the Internet to a USB 8+GB memory stick, or you could use Linux/VMWare Player system. See Module 1 for the download information.

Note: You will need to download and install fedora 28.

Instructions:

- Conduct the list of actions in the **Module06_CT_Opt1.docx** worksheet. Make notes on EACH activity recording your processes, challenges, and results. These notes will then become the substance of your report.
- Write a report that includes screenshots and your explanations and descriptions of the actions listed in the worksheet.

- You may wish to use the numbers of the questions as subheadings in your paper to ensure you have addressed each action.

Submission Requirements:
- Your well-written paper should be two to four pages in length not including the required cover and references pages.
- Format your paper, where appropriate, according to the *CSU-Global Guide to Writing and APA*.

Option #2: Hands-on project – System Monitoring & Networking

In this assignment, you will set up Linux system on your system by downloading Linux from the Internet to a USB 8+GB memory stick, or you could use Linux/VMWare Player system. See Module 1 for the download information.
Note: You will need to download and install fedora 28.

Instructions:
- Conduct the list of actions in the **Module06_CT_Opt2.docx** worksheet. Make notes on EACH activity recording your processes, challenges, and results. These notes will then become the substance of your report.
- Write a report that includes screenshots and your explanations and descriptions of the actions listed in the worksheet.
- You may wish to use the numbers of the questions as subheadings in your paper to ensure you have addressed each action.

Submission Requirements:
- Your well-written paper should be two to four pages in length not including the required cover and references pages.
- Format your paper, where appropriate, according to the *CSU-Global Guide to Writing and APA*.

MODULE 7

Readings
· Chapter 10 in *CompTIA Linux+™ Powered by Linux Professional Institute Study Guide Exam LX0-103 and Exam LX0-104* (3rd ed.)
· Sections 12.1, 12.2, 12.3, 12.4, 12.5, 12.6, 12.7. and 12.8 in *Testout LabSim Linux+ LPIC-1*

Opening Exercise (0 points)

Discussion (25 points)

Mastery Exercise (10 points)

MODULE 8

Readings
· Chapter 7 *in CompTIA Linux+™ Powered by Linux Professional Institute Study Guide Exam LX0-103 and Exam LX0-104* (3rd ed.)
· Section B.4 in *Testout LabSim Linux+ LPIC-1*

Opening Exercise (0 points)

Discussion (25 points)

Mastery Exercise (10 points)

Portfolio Project (300 points)

Choose one of the following two Portfolio Projects to complete. Do not do both assignments. Identify your assignment choice in the title of your submission. Review the Portfolio Project grading rubric to understand how you'll be graded on your project.

Option #1: Local Linux in a Global Setting

You are hired to plan and implement setting up a local Linux environment for a global organization. Your project is to setup a Linux environment for an organization that has offices globally with many computers and devices connected to the main office (headquarters), and with an access to a cloud-based environment. The organization also uses cloud-based environment, and your local Linux environment is connected to the cloud environment of the organization.

Write a paper that contains the process of setting up Linux environment, detail explanation of the build and implementation, and how the environment will operate. Some of the topics and requirements may require research to properly address.

Submission Requirements:
- Write an eight- to 10-page paper, not counting required title and reference pages. Include additional pages as needed to accommodate graphics.
- Format your paper according to the *CSU-Global Guide to Writing and APA*.
- Incorporate four to six scholarly sources to support your paper. The CSU-Global Library is a good place to find these sources.

You must address the following in your proposal and may make any assumptions which are not specified:

- Which Linux distribution(s) will be required? This should include information about both client and server operating systems.
- Describe the hardware to be used and the installation options.
- Describe how users will log onto the systems.
- Explain how systems will receive IP addresses.
- Explain how DNS will be accessed by the systems.
- Explain how users will securely share files within their group and other selected groups/users in the company.
- How will printing be implemented and managed?
- What kind of data encryption will be required?
- Explain the local host and network security requirements.

Option #2: Linux for a Single Office (350 points)

You are hired to plan and implement setting up a local Linux environment for a single office that does not have access to a cloud-based environment. Your project is to set up the Linux environment for this single office with five other computers connected on a local network and internet access.

Write a paper that explains the process of setting up the Linux environment. Provide detailed explanation of the build and implementation and how the environment will operate. Some of the topics and requirements may require research to properly address.

Submission Requirements:
- Write an eight- to 10-page paper, not counting required title and reference pages. Include additional pages as needed to accommodate graphics.
- Format your paper according to the *CSU-Global Guide to Writing and APA*.
- Incorporate four to six scholarly sources to support your paper. The CSU-Global Library is a good place to find these sources.

You must address the following in your proposal and may make any assumptions which are not specified:

- Which Linux distribution(s) will be required? This should include information about both client and server operating systems.
- Describe the hardware to be used and the installation options.
- Describe how users will log onto the systems.
- Explain how systems will receive IP addresses.
- Explain how DNS will be accessed by the systems.
- Explain how users will securely share files within their group and other selected groups/users in the company.
- How will printing be implemented and managed?
- What kind of data encryption will be required?
- Explain the local host and network security requirements.

COURSE POLICIES

Course Grading

20% Discussion Participation
0%   Opening Exercises
8%   Mastery Exercises
37% Critical Thinking Assignments
35% Final Portfolio Project

Grading Scale	
A	95.0 – 100
A-	90.0 – 94.9
B+	86.7 – 89.9
B	83.3 – 86.6
B-	80.0 – 83.2
C+	75.0 – 79.9
C	70.0 – 74.9
D	60.0 – 69.9
F	59.9 or below

IN-CLASSROOM POLICIES

For information on late work and incomplete grade policies, please refer to our **In-Classroom Student Policies and Guidelines** or the Academic Catalog for comprehensive documentation of CSU-Global institutional policies.

Academic Integrity
Students must assume responsibility for maintaining honesty in all work submitted for credit and in any other work designated by the instructor of the course. Academic dishonesty includes cheating, fabrication, facilitating academic dishonesty, plagiarism, reusing /repurposing your own work (see *CSU-Global Guide to Writing and APA Requirements* for percentage of repurposed work that can be used in an assignment), unauthorized possession of academic materials, and unauthorized collaboration. The CSU-Global Library provides information on how students can avoid plagiarism by understanding what it is and how to use the Library and Internet resources.

Citing Sources with APA Style
All students are expected to follow the *CSU-Global Guide to Writing and APA Requirements* when citing in APA (based on the APA Style Manual, 6th edition) for all assignments. For details on CSU-Global APA style, please review the APA resources within the CSU-Global Library under the "APA Guide & Resources" link. A link to this document should also be provided within most assignment descriptions in your course.

Disability Services Statement
CSU-Global is committed to providing reasonable accommodations for all persons with disabilities. Any student with a documented disability requesting academic accommodations should contact the Disability Resource Coordinator at 720-279-0650 and/or email ada@CSUGlobal.edu for additional information to coordinate reasonable accommodations for students with documented disabilities.

Netiquette
Respect the diversity of opinions among the instructor and classmates and engage with them in a courteous, respectful, and professional manner. All posts and classroom communication must be conducted in accordance with the student code of conduct. Think before you push the Send button. Did you say just what you meant? How will the person on the other end read the words?

Maintain an environment free of harassment, stalking, threats, abuse, insults, or humiliation toward the instructor and classmates. This includes, but is not limited to, demeaning written or oral comments of an ethnic, religious, age, disability, sexist (or sexual orientation), or racist nature; and the unwanted sexual advances or intimidations by email, or on discussion boards and other postings within or connected to the online classroom. If you have concerns about something that has been said, please let your instructor know.