# Linux Installation and Configuration

(ITSC 1316 1A1)

# CREDIT

3 Semester Credit Hours (2 hours lecture, 4 hours lab)

MODE OF INSTRUCTION Hybrid

# PREREQUISITE/CO-REQUISITE:

None

# **COURSE DESCRIPTION**

Introduction to Linux operating system. Includes Linux installation, basic administration, utilities and commands, upgrading, networking, security, and application installation. Emphasizes hands-on setup, administration, and management of Linux.

# COURSE OBJECTIVES

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

- Install, administer, and manage a Linux system
- Demonstrate proficiency with Linux utilizes, commands, and applications
- Identify and resolve security-based issues
- Integrate a Linux system into an existing network

#### INSTRUCTOR CONTACT INFORMATION

| Instructor:      | Steven Veron    |
|------------------|-----------------|
| Email:           | sdveron@lit.edu |
| Office Phone:    | N/A             |
| Office Location: | N/A             |
| Office Hours:    | N/A             |

# **REQUIRED TEXTBOOK AND MATERIALS**

- 1. Cengage MindTap access to CompTIA Linux+ Guide to Linux Certification, 5e
  - a. How to buy your Course Materials
    - 1. Sign into Blackboard and click on this course.
    - 2. Click on the Cengage link: Getting Started in the Getting Started with Cengage MindTap section.



3. Create or sign into your Cengage account to access or purchase the materials for this course.

NOTE: If you are taking additional courses that use Cengage materials, you can save by purchasing a Cengage Unlimited plan, which gives you access to all Cengage e-Textbooks and online homework platforms for one price. Visit cengage.com/unlimited or your campus bookstore to learn more.

- b. Beware of sites that are selling discounted codes. These sources are likely unauthorized sellers who have acquired access codes illegally, and transactions with such sources may pose a risk to your personal information.
- c. Need help? Visit startstrong.cengage.com for step-by-step registration instructions and videos.

# ATTENDANCE POLICY

Three absences are allowed. If a student is tardy to class or departs early three (3) times, it will be equal to one (1) absence. Each absence beyond three absences will result in a 2-point deduction from your final grade.

# **DROP POLICY**

If you wish to drop a course, you are responsible for initiating and completing the drop process. If you stop coming to class and fail to drop the course, you will earn an "F" in the course. **Important Drop Dates** 

| Last Day to Drop with Refund              | 02/10/2025 |
|---|------------|
| Last Day to Pay Tuition to Avoid Drop     | 02/20/2025 |
| Last Day to Drop without Academic Penalty | 02/26/2025 |
| Last Day to Drop with Academic Penalty    | 04/14/2025 |

# **COURSE CALENDAR (Subject to Change)**

| DATE                | ΤΟΡΙϹ  | READINGS<br>(Due on this Date) | ASSIGNMENTS<br>(Due on this Date) |
|---------------------|--|--------------------------------|-----------------------------------|
| Week 1<br>1/21-1/26 | Class Introductions,<br>Syllabus. Module 1:<br>Introduction to Linux | Syllabus, Module 1             | None                              |

| Week 2<br>1/26-2/2          | Module 2: Linux<br>Installation and Usage  | Module 2        | CompTIA Linux+ Pre-<br>Assessment Quiz,<br>Module 1<br>1/28/25 |
|-----------------------------|--|-----------------|--|
| Week 3<br>2/2-2/9           | Module 3: Exploring<br>Linux Filesystems   | Module 3        | Module 2<br>2/4/25   |
| Week 4<br>2/9-2/16          | Module 4: Linux<br>Filesystem Management<br>&<br>Module 5: Linux<br>Filesystem<br>Administration                 | Modules 4 & 5   | Module 3<br>2/11/25  |
| Week 5<br>2/16-2/23         | Test Modules 1-5   |                 | Modules 4 & 5<br>2/18/25                                       |
| Week 6<br>2/23-3/2          | Module 6: Linux Server<br>Deployment   | Module 6        |  |
| Week 7<br>3/2-3/9           | Module 7: Working with<br>the BASH Shell &<br>Module 8: System<br>Initialization, X Windows,<br>and Localization | Modules 7 & 8   | Module 6<br>3/4/25   |
| Spring<br>Break<br>3/9-3/16 | Spring Break   | Spring Break    | Spring Break   |
| Week 8<br>3/16-3/23         | Module 9: Managing<br>Linux Processes &<br>Module 10: Common<br>Administrative Tasks                             | Modules 9 & 10  | Modules 7 & 8<br>3/18/25                                       |
| Week 9<br>3/23-3/30         | Test Modules 6-10  |                 | Modules 9 & 10<br>3/25/25                                      |
| Week 10<br>3/30-4/6         | Module 11:<br>Compression, System<br>Backup, and Software<br>Installation  | Module 11       |  |
| Week 11<br>4/6-4/13         | Module 12: Network<br>Configuration &<br>Module 13: Configuring<br>Network Services and<br>Cloud Technology      | Modules 12 & 13 | Module 11<br>4/8/25  |
| Week 12<br>4/13-4/20        | Module 14: Security,<br>Troubleshooting, and<br>Performance  | Module 14       | Modules 12 & 13<br>4/15/25                                     |

| Week 13   | Test Modules 11-14 | Module 14         |
|-----------|--------------------|-------------------|
| 4/20-4/27 |                    | 4/22/25           |
| Week 14   | Makoup Day         |                   |
| 4/27-5/4  | Makeup Day         |                   |
| Week 15   | Final Exam         | Einal Evam E/7/2E |
| 5/4-5/11  |                    |                   |
| Week 16   | No Class           |                   |
| 5/11-5/13 | NO CIASS           |                   |

# **COURSE EVALUATION**

Final grades will be calculated according to the following criteria:

- Virtual Machine Labs 40%
- Chapter Quizzes 20%
- Chapter Tests 20%
- Final Exam 20%

#### **GRADE SCALE**

- 90-100 A
- 80-89 B
- 70-79 C
- 60-69 D
- 0-59 F

# **TECHNICAL REQUIREMENTS**

The latest technical requirements, including hardware, compatible browsers, operating systems, etc. can be online at <u>https://lit.edu/online-learning/online-learning-minimum-computer-requirements</u>. A functional broadband internet connection, such as DSL, cable, or WiFi is necessary to maximize the use of online technology and resources.

#### **DISABILITIES STATEMENT**

The Americans with Disabilities Act of 1990 and Section 504 of the Rehabilitation Act of 1973 are federal anti-discrimination statutes that provide comprehensive civil rights for persons with disabilities. LIT provides reasonable accommodations as defined in the Rehabilitation Act of 1973, Section 504 and the Americans with Disabilities Act of 1990, to students with a diagnosed disability. The Special Populations Office is located in the Eagles' Nest Room 129 and helps foster a supportive and inclusive educational environment by maintaining partnerships with faculty and staff, as well as promoting awareness among all members of the Lamar Institute of Technology community. If you believe you have a disability requiring an accommodation, please contact the Special Populations Coordinator at (409)-951-5708 or email <u>special Populations@lit.edu</u>. You may also visit the online resource at <u>Special Populations - Lamar Institute of Technology (lit.edu</u>).

# STUDENT CODE OF CONDUCT STATEMENT

It is the responsibility of all registered Lamar Institute of Technology students to access, read, understand and abide by all published policies, regulations, and procedures listed in the LIT Catalog and Student Handbook. The LIT Catalog and Student Handbook may be accessed at www.lit.edu. Please note that the online version of the LIT Catalog and Student Handbook supersedes all other versions of the same document.

# **ARTIFICIAL INTELLIGENCE STATEMENT**

Lamar Institute of Technology (LIT) recognizes the recent advances in Artificial Intelligence (AI), such as ChatGPT, have changed the landscape of many career disciplines and will impact many students in and out of the classroom. To prepare students for their selected careers, LIT desires to guide students in the ethical use of these technologies and incorporate AI into classroom instruction and assignments appropriately. Appropriate use of these technologies is at the discretion of the instructor. Students are reminded that all submitted work must be their own original work unless otherwise specified. Students should contact their instructor with any questions as to the acceptable use of AI/ChatGPT in their courses

#### **STARFISH**

LIT utilizes an early alert system called Starfish. Throughout the semester, you may receive emails from Starfish regarding your course grades, attendance, or academic performance. Faculty members record student attendance, raise flags and kudos to express concern or give praise, and you can make an appointment with faculty and staff all through the Starfish home page. You can also login to Blackboard or MyLIT and click on the Starfish link to view academic alerts and detailed information. It is the responsibility of the student to pay attention to these emails and information in Starfish and consider taking the recommended actions. Starfish is used to help you be a successful student at LIT.

# ADDITIONAL COURSE POLICIES/INFORMATION

Cyber Security majors are required to earn certification in one of the following areas prior to graduation. Students are responsible for scheduling and paying for the certification through the LIT Testing Center.

- A+ Certification
- Network+ Certification
- Security+ Certification
- Linux+ Certification
- Cisco Certified Network Associate (CCNA)

This course covers part of the material to prepare for the CompTIA Linux+ certification. More information about the certification can be found online at

# https://www.comptia.org/certifications/linux

# **Course Policies**

- 1. <u>Email is the preferred method of communication (sdveron@lit.edu).</u> I cannot respond to Blackboard Messages. I will typically respond within 24 hours except for weekends and holidays.
- 2. No food, drinks, use of tobacco products, or vaping products in class.
- 3. Electronic devices not being used for the class, such as phones and headphones, must be turned off while in class. Any device usage during class may result in adeduction of points on an assignment or test.
- 4. Do not bring children to class.
- 5. Certification: If a student passes the certification test that is associated with this class, you will receive an "A" on the final exam and credit for 25% of your labs.
- 6. A grade of 'C' or better must be earned in this course for credit toward degree requirement.
- All assignment due dates are indicated in the Blackboard course for this class and the course calendar above. Any work submitted after the assigned due date will receive a <u>25-point</u> <u>deduction the first 2 days and 50 points after 2 days. No late assignments will be accepted</u> <u>after the test over the module has been given.</u>
- 8. Tests are assigned a due date, which will typically be during a class period, and must be completed by that date to receive full credit. Students must be in class to take the test unless given specific permission otherwise.
- 9. All assignments must be submitted via Cengage Mindtap unless specified by your instructor. Assignments submitted through any other method or missing a file will not receive credit.
- 10. Grades for assignments may be accessed in the Gradebook in Cengage Mindtap and Blackboard.
- 11. It is the student's responsibility to verify all grades and ask for corrections if needed.
- 12. All work is due before the final exam date. Nothing will be graded after the final exam.