DAVISTECH
DAVIS TECHNICAL COLLEGE

ITEC 1018 Linux Essentials

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Introduction

Welcome to Davis Technical College (Davis Tech). We are pleased you have chosen to continue your education by enrolling in this course. This course is competency-based, allowing you to progress at your own pace, while demonstrating your competency through a variety of assignments and assessments. Specific requirements for successful course completion will be outlined in this syllabus.

Course Description

This course will introduce students to the fundamentals of the Linux operating system. Students will be exposed to Linux terminal command-line functions and will be expected to configure a Linux machine throughout the course. Concepts such as packages, file system structure, troubleshooting commands, and permissions will be covered in light detail and students will be given the opportunity to apply each concept as they work through the course.

Course Objectives

- Efficiently navigate a Linux command-line environment
- Successfully configure and manipulate file and directory permissions
- Install, configure, and update Linux packages

Course Length

60 Hours

The average hours for a student to complete the course are the basis for the course hours. Your hours may vary slightly from the average. All coursework must be completed and submitted to your instructor by the end date given to you when you enrolled in the course. To complete this course in the time given, you will need to follow the Course Timeline in this syllabus. ***If you need additional***

time to complete the course, you will need to re-enroll in the course and pay for the course again.

Attendance

To see the college's official attendance policy, please refer to the New Student Orientation in Canvas (davistech.edu/orientation). Your program may have specific attendance requirements. To see your program's attendance policy, please refer to your program orientation.

Course Materials

- **Textbook:** none

Grading Practices

We are a competency-based institution. To receive credit for this course, you must demonstrate competency in a number of activities and skills. To see how competency will be assessed, please refer to your program orientation.

Canvas

You can access Canvas from any Internet-connected computer at the following URL: https://davistech.instructure.com/login. If you have problems logging in to Canvas, please see your instructor or email online.support@davistech.edu. If you encounter technical problems while in Canvas, use the Help button in Canvas and the "Report a Problem" link.

Course Navigation

Class Schedule: Review your course schedule (received from Student Services) and the classroom hours (listed on the first page of this syllabus). You are expected to be present and working in the classroom during your schedule class periods; you may not utilize the classroom outside of your scheduled hours without an appointment or permission from a faculty member.

Cisco Networking Academy Website: You will be completing the majority of your work on the Cisco Networking Academy website located at http://www.netacad.com/. This website contains the textbook and an integrated virtual machine you will use during the exercises in this course. One of the assignments in the first module of this course will require you to get set up with an account on this website.

Completing and Submitting Assignments: You will be working in the Cisco Networking Academy website, which is a Canvas environment, similar to the Davis Tech Canvas environment. You will complete assignments in Cisco Canvas, and then report on completion of those assignments in this Davis Tech Canvas course.

Course Timeline Activity: Learning to manage your time is key to your success and is part of Project Management practices that are commonplace in the IT and the Cybersecurity professional. As you progress through this course, you will complete "Course Timelines," track module progress, monitor course and program progress, and check resource utilization such as

time and attendance. These activities will prepare you to work in the face-paced, outcomes-driven, project-based IT industry environment.

For this course, you have a course start and a course end date that is the deadline by which all assignments, requirements or activities must be completed and accepted by an instructor. Further the course is broken down into major milestones, more manageable chunks called modules, with shorter deadlines (module hours). In order to stay on schedule in this course, all assignments, requirements or activities within each module need to be completed within the hours allotted for the module.

Creating and managing your course timeline will help you with prioritizing your work and setting deadlines. You need to complete the Course Timeline activity in Canvas. At the end of each module, you will be asked to compare your progress to your timeline to see if you are meeting your goals. If you fall behind, you will be asked to come up with a plan that will allow you to catch up.

Tracking Time: You will need to track all hours you spend working on completing this course. This includes all time in or out of the classroom. You will need to track your scheduled classroom time and attendance, and any time spent outside the classroom working on this course. You will be reporting this information, as well as progress and attendance calculations, as part of the module completion process at the completion of each module. Understanding your progress, time usage, and attendance is key to developing your project management skill set. This information is also important to assisting your instructors and instructional design personnel in curriculum evaluation and setting course hour durations.

Alternate Competency Exercise (ACE): All exams require a grade of 80% or better to pass. You get 3 attempts to with a score of 80% or better. If you don't achieve that score in 3 attempts, you need to request an ACE. This is a different exercise than the exam, usually a Word document where you explain the correct answers to questions on the exam. When you successfully complete the ACE, your grade for that exam is changed to 80%, which unlocks the next chapter or module in the Cisco Canvas course. The ACE assignment is located in the Course Information in the Davis Tech Canvas course. You may use the same assignment for requesting an ACE in multiple modules, if needed.

Chapter Exams: There are chapter exams for each chapter in the Cisco Canvas assignments. They do not require an access code and may be taken at your desk. You have 3 attempts to pass with a score of 80% or better. If you don't achieve that score in 3 attempts, request an ACE.

First Half Exam, Second Half Exam, Comprehensive Final Exam: These exams are cumulative assessments, covering multiple chapters. They require an access code and must be taken on the testing row. You have 3 attempts to pass with a score of 80% or better. If you don't achieve that score in 3 attempts, request an ACE. There is an exam covering the first half, chapters 1 – 9, an exam covering the second half, chapters 10 – 18, and a final comprehensive exam for all chapters.

Reading Assignments: There are reading assignments for each chapter in the Cisco Networking Academy course.

Lab Assignments: There are Lab exercises assigned in most chapters in the Cisco Networking Academy course.

Submit Module Grades: After completing the work in a module in the Cisco Networking Academy course, take a screenshot of the exam grades for the chapters in the module and submit that screenshot. The grades in the Cisco Networking Academy course are averages for the module grade in the Davis Tech course.

Instructor Meetings: At the end of each module you will need to complete the following: (1) check the Gradebook in Canvas and verify that every assignment *has been submitted*, (2) evaluate your Course Timeline and make any necessary adjustments, and (3) meet with an instructor who will verify your progress and unlock the next module.

Module Completion and Sign-off: At the end of each module you will take a quiz. You will need to verify you have scored at least 80 percent on all of your assignments before you take the quiz. You will also report how many hours you spent on the module at this time. Once you have taken this quiz, your instructor will then mark off your progress in Northstar.

Course Completion Meeting: When you complete the course, you will meet with the instructor to ensure all work has been completed with a satisfactory grade, and discuss the next steps.

Course Evaluation: In the final module, you will be asked to complete a course evaluation for this course. Please be honest but professional when providing feedback about this course. This evaluation is anonymous, and the information gathered is used by instructors to improve the course content and delivery, as well as the overall program. The evaluation is located at http://www.davistech.edu/evaluation or in Canvas. If you have any problems with the course evaluation, send an email to stephen.fan@davistech.edu.

Course Timeline

For 100 percent progress, the course should be finished using the following timeline. Use the timeline to track your progress and ensure you finish within the required time frame.

Projected Course End Date:					
Module	**Hours**	**Start Date**	**Projected Finish Date**	**Finish Date**	**Actual Hours**
Module 1: Introduction to Linux	9				
Module 2: Filesystems	12				
Module 3: First Half Exam	3				
Module 4: Texts, Scripting, Hardware	12				
Module 5: Network Configurations, Users, Groups	15				
Module 6: Second Half Exam	3				
Module 7: Comprehensive Final Exam	6				
Total Course Hours	**60**				

Course Assignments Table

* Assignments marked with an asterisk MUST be completed in the classroom.

Module 1: Introduction to Linux (9 hours)

☐ Please refer to Canvas for further instructions on these assignments:

    ☐ Cisco Networking Academy Account Setup

    ☐ Working with the Course Timeline

    ☐ Course Timeline Activity

    ☐ Module 1: Start Tracking Your Time

    ☐ Complete the Module 1 assignments in Cisco Networking Academy:

        ☐ Read Chapter 1: Introduction to Linux

        ☐ Read Chapter 2: Operating Systems

        ☐ Take Chapter 2 Exam

        ☐ Read Chapter 3: Working in Linux

        ☐ Take Chapter 3 Exam

        ☐ Read Chapter 4: Open Source: Software and Licensing

        ☐ Complete Lab 4

        ☐ Take Chapter 4 Exam

        ☐ Read Chapter 5: Command Line Skills

        ☐ Complete Lab 5

        ☐ Take Chapter 5 Exam

    ☐ Submit Module 1 Chapter Grades

    ☐ *Module 1 Instructor Meeting

    ☐ Module 1 Completion and Sign-off

Module 2: Filesystems (12 hours)

☐ Please refer to Canvas for further instructions on these assignments:

    ☐ Module 2: Start Tracking your Time

    ☐ Complete the Module 2 assignments on the Cisco Networking Academy:

        ☐ Read Chapter 6: Getting Help in Linux

        ☐ Complete Lab 6

        ☐ Take Chapter 6 Exam

        ☐ Read Chapter 7: Navigating the File System

        ☐ Complete Lab 7

        ☐ Take Chapter 7 Exam

        ☐ Read Chapter 8: Managing Files and Directories

        ☐ Complete Lab 8

        ☐ Take Chapter 8 Exam

        ☐ Read Chapter 9: Archiving and Compression

        ☐ Complete Lab 9

        ☐ Take Chapter 9 Exam

    ☐ Submit Module 2 Chapter Grades

    ☐ *Module 2 Instructor Meeting

    ☐ Module 2 Completion and Sign-off

Module 3: First Half Exam (3 hours)

☐ Please refer to Canvas for further instructions on these assignments:

    ☐ Complete the Module 3 assignments on the Cisco Networking Academy

        ☐ *Take the First Half Exam covering Chapters 1 - 9

    ☐ Submit First Half Exam Results

    ☐ *Module 3 Instructor Meeting

    ☐ Module 3 Completion and Sign-off

Module 4: Texts, Scripting, Hardware (12 hours)

☐ Please refer to Canvas for further instructions on these assignments:

    ☐ Complete the Module 4 assignments on the Cisco Networking Academy

        ☐ Read Chapter 10: Working with Text

        ☐ Complete Lab 10

        ☐ Take Chapter 10 Exam

        ☐ Read Chapter 11: Basic Scripting

        ☐ Complete Lab 11

        ☐ Take Chapter 11 Exam

        ☐ Read Chapter 12: Understanding Compute Hardware

        ☐ Complete Lab 12

        ☐ Take Chapter 12 Exam

        ☐ Read Chapter 13: Where Data is Stored

        ☐ Complete Lab 13

        ☐ Take Chapter 13 Exam

    ☐ Submit Module 4 Chapter Grades

    ☐ *Module 4 Instructor Meeting

    ☐ Module 4 Completion and Sign-off

Module 5: Network Configurations, Users, Groups (15 hours)

☐ Please refer to Canvas for further instructions on these assignments:

    ☐ Module 5: Start Tracking your Time

    ☐ Complete Module 5 assignments on the Cisco Networking Academy:

        ☐ Read Chapter 14: Network Configuration

        ☐ Complete Lab 14

        ☐ Take Chapter 14 Exam

        ☐ Read Chapter 15: System and User Security

        ☐ Complete Lab 15

        ☐ Take Chapter 15 Exam

        ☐ Read Chapter 16: Creating Users and Groups

        ☐ Complete Lab 16

        ☐ Take Chapter 16 Exam

        ☐ Read Chapter 17: Ownership and Permissions in Linux

☐ Complete Lab 17

☐ Take Chapter 17 Exam

☐ Read Chapter 18: Special Directories and Files

☐ Complete Lab 18

☐ Take Chapter 18 Exam

☐ Submit Module 5 Chapter Grades

☐ *Module 5 Instructor Meeting

☐ Module 5 Completion and Sign-off

Module 6: Second Half Exam (3 hours)

☐ Please refer to Canvas for further instructions on these assignments:

☐ Complete the Module 6 assignments on the Cisco Networking Academy

☐ *Take the Second Half Exam covering Chapters 10 - 18

☐ Submit Second Half Exam Results

☐ *Module 6 Instructor Meeting

☐ Module 6 Completion and Sign-off

Module 7: Comprehensive Final Exam (6 hours)

☐ Please refer to Canvas for further instructions on these assignments:

☐ Davis Tech Course Evaluation

☐ Complete the Module 7 assignments on the Cisco Networking Academy

☐ *Take the Final Comprehensive Exam covering Chapters 1 - 18

☐ Submit Comprehensive Final Exam Results

☐ *Course Completion Quiz and Instructor Meeting