

Virginia Western Community College
ITN 170
Linux System Administration

Prerequisites

TEL 150

Course Description

Focuses instruction on the installation, configuration and administration of the Linux operating system and emphasizes the use of Linux as a network client and workstation.

Semester Credits: 3 Lecture Hours: 3 Lab/Clinical/Internship Hours: 0

Required Materials**Textbook:**

NDG Linux Essentials located on Cisco Networking Academy Website www.netcad.com

Other Required Materials:**Course Outcomes**

At the completion of this course, the student should be able to:

- Install common Linux distributions
- Automate the installation of Linux through the use of “kickstart” scripts
- Modify and maintain system configuration files and startup scripts
- Install and maintain software applications
- Administer user and group accounts
- Configure and control hardware devices
- Integrate Linux as a client within an existing network
- Configure TCP/IP network parameters
- Configure client software
- Configure and use the X-Window system
- Perform basic troubleshooting

- Configure basic host security
- Compile and install a custom Linux kernel
- Describe and identify the run levels 0-6
- Configure printing (local and network)

Topical Description

- a. Installation of Linux
- b. System initialization scripts
- c. Installation and upgrade of system software
- d. Compiling system software from source code
- e. User administration
- f. Installing and configuring hardware devices
- g. Installing and configuring print services
- h. Network configuration
- i. Utilizing network services
- j. Configuration of X-Windows
- k. Troubleshooting system failures
- l. System Security

Notes to Instructors

Other supplementary textbooks and resource materials include:

- *Red Hat RHCSA/RHCE 7 Cert Guide: Red Hat Enterprise Linux 7 (EX200 and EX300)* by Sander van Vugt,
- *RHCSA & RHCE Red Hat Enterprise Linux 7: Training and Exam Preparation Guide (EX200 and EX300) Third Edition March 2015*, by Asghar Ghori

Helpful web resources include:

- [RHCSA Series: Reviewing Essential Commands & System Documentation](#), by Gabriel Cánepa