

**NVCC COLLEGE-WIDE COURSE CONTENT SUMMARY
ITN 270 - ADVANCED LINUX NETWORK ADMINISTRATION (3 CR.)**

Course Description

Focuses instruction on the configuration and administration of the Linux operating system as a network server. Emphasizes the configuration of common network services such as routing, http, DNS, DHCP, ftp, telnet, SMB, NFS, and NIS. Lecture 3 hours per week.

Course Prerequisites or Corequisites

Prerequisite: ITN 170

Course Objectives

Upon completing the course, the student will be able to:

- Install and configure Linux as a network server
- Install and configure the Apache web server to include Apache Virtual Servers
- Configure Samba file and printer sharing
- Configure NFS
- Configure DNS using BIND
- Configure DHCP
- Configure Routing
- Configure a Linux firewall
- Set up a Linux based print server
- Securely Manage Remote Access
- Install and configure the send mail email server (basic)
- Manage security for an Internet attached server

Major Topics to be Included

- a. Advanced system configuration
- b. Apache web server administration and management
- c. Integrating Linux with MS Windows
- d. Creating a distributed file system
- e. Domain name services
- f. Managing IP addresses and subnets
- g. Static and Dynamic IP routing
- h. Firewalls and Internet security
- i. Print services and printers
- j. Managing user access through ftp and telnet
- k. Introduction to email services using send mail
- l. Ethics, security and privacy
- m. Personification of processes
- n. Introduction to network security tools and applications