

Course Title: Linux for Beginners

Course Description

The course is designed for beginners in Linux as users or system administrators. It covers essential learning skills for Linux. The course provides hands-on training to effectively use, customize, and script common command line utilities. In addition, administrators will learn how to perform essential system administration tasks including basic installation, package management, and user management procedures.

Audience:

- Windows users or system administrators who would like to expand their skill-set and learn Linux
- IT professionals who are interested in learning fundamental system administration skills
- Programmers, database administrators, and others who interface with other operating systems but now want to perform those tasks on a Linux system

Prerequisites

- User-level experience with any computer operating system
- Prior command-line experience is helpful but not required

Course Outline

- An Introduction to Linux and Open Source: what are the central ideas behind the Linux phenomenon and where do they come from?
- Logging into the system, changing users and editing text files.
- How to use built-in and online documentation to enhance your experience.
- Understanding the locations of important directories on a Linux system and navigating to them from the command line or with the graphical Nautilus browser.
- Reading and setting permissions on files and directories.
- Basic tips and tricks to make the Linux default shell work for you. Topics include tab completion, history, and an introduction to shell scripting.
- The ins-and-outs of redirecting output between programs and files.
- An introduction to some of the most useful text-processing utilities in Linux, including grep, cut, sed, sort, diff, and patch.
- How to get the most out of the powerful and flexible Emacs text editor.
- Listing, terminating and scheduling program executions on a Linux system.
- Using Linux's graphical and text-based configuration tools to manage networking, printing and date/time settings.
- In-depth coverage of using the find command and related utilities to locate and act upon files based on arbitrary criteria .
- An overview of network tools available in Linux, from web browsers to email clients and diagnostic utilities.
- A deeper discussion of how user and group identities are stored on a Linux system, as well as the introduction of advanced filesystem permissions like SetUID and SetGID.
- The nuts-and-bolts of how Linux deals with filesystems. Topics include partitions, inodes, linking and archiving tools.