# INTERMEDIATE LINUX

Course Code: 100880

## Learn intermediate Linux skills for everyday tasks.

This hands-on course teaches you the Linux commands and utilities used for everyday tasks. This includes file manipulation, program execution and control, and the effective use of the shell and desktop environments. You'll learn the concepts necessary to understand how Linux works and the system's most commonly used commands. Data manipulation utilities and shell syntax for synthesizing command pipelines are emphasized. We'll also introduce Bourne shell, Bash shell, and Korn shell programming techniques, so you will be able to read and modify existing shell scripts as well as create your own.

## What You'll Learn

Join an engaging hands-on learning environment, where you'll learn:

- Review of the file system
- Introduction to shells: sh, Bash, and ksh
- Shell programming
- Advanced shell features
- Text manipulation utilities
- File processing utilities
- Multitasking and batch processing
- Regular expressions

This course has a 50% hands-on labs to 50% lecture ratio with engaging instruction, demos, group discussions, labs, and project work.

## Who Needs to Attend

This is an intermediate-level course for professionals with basic Linux experience.

## Prerequisites

Before attending this course, you should have experience with common UNIX/Linux user-level commands, such as moving, copying, and editing files. Experience with the vi editor is a plus.

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| VIRTUAL CLASSROOM LIVE | $2,195 USD | 2 Day |
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Virtual Classroom Live Outline

**Review of the File System**

- File system organization
- File types
- File and directory naming rules and conventions
- Commands for navigating the file system
- Introduction to Inodes
- Ownership, permissions, and dates
- Manipulating files and links
- Manipulating directories
- Determining disk usage
- Other file system utilities

**Introduction to Shells: sh, bash, and ksh**

- Shell functions
- I/O Redirection and pipes
- Command separation and grouping
- Background execution
- Filename expansion
- Shell variables
- Command substitution
- Quoting and escaping metacharacters
- Bash shell features
- Korn shell features
- Command execution
- Startup files
- Customizing the user environment

**Shell Programming**

- Shell script features and capabilities

- ◻ Creating and running a script
- ◻ Working with variables
- Environment variables
- Working with data types
  - ◻ Formatting
  - ◻ Base conversion
  - ◻ Setting special attributes
- Input/Output techniques
- Conditional constructs
  - ◻ if/then
  - ◻ else/elif
- Looping constructs
  - ◻ for, while, until
- Math operators

## Advanced Shell Features

- Manipulating strings
- Writing and calling functions
- Controlling process priorities
- Interpreting command line arguments
- Making scripts interactive
- Special shell variables
- Advanced I/O with streams
- Improving performance of scripts

## Text Manipulation Utilities

- Editing a file from a script
- Scripting with ed or sed
- UNIX and Linux utilities to manipulate files
- Regular expressions
- grep and egrep
- The stream editor sed
- Sorting in scripts
- Generating reports with awk
- Splitting large files
- Counting words, lines, and characters
- Transforming file contents

## File Processing Utilities

- Examining and comparing files
- Reporting differences between files
- Comparing files of any format
- Displaying data in octal and hex
- Compressing data
- Converting file formats
- Extracting text strings

## Multitasking and Batch Processing

- Multitasking
- Scheduled sxecution using cron
- The at and batch commands

**Regular Expressions**

- Regular expression overview
- Regular expression implementations
- Regular expressions
- RE character classes
- Regex quantifiers
- RE parenthesis

Nov 20 - 21, 2025 | 10:00 AM - 6:00 PM EST

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| PRIVATE GROUP TRAINING | 2 Day |
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