

# LPI Linux Essentials (010-160)

This LPI Linux Essentials (LPI 010) training covers the basic commands and functions of the Linux operating system, and prepares you to earn the LPI Linux Essentials (010-160) certification. Whether you're starting your career in open source, or looking for advancement, this training can verify your skill set, and certify you as a Linux professional.

[CBT Nuggets course material](#) →

## WEEK 1

### Linux Evolution and Popular Operating Systems 156 min.

The Function of an Operating System	4
The History of Linux	5
Comparing Windows and Linux	12
Why Use Linux?	6
Linux Distributions	12
Alternative Linux Distributions	5
Validation	3

### Linux Software Packages

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Open Source Apps: Programming, Server, and Administration	10
Major Open Source Apps: Desktop and Mobile	11
Install Software via GUI, apt, and dnf	11
Uninstall Software	4
Open Source Software and Licensing	13
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Linux Desktop Environment - Overview	7
Linux Desktop Environment - GNOME and KDE Plasma	15
Linux Desktop Environment - Linux Mint/Cinnamon	11

### ITC Skills and Working in Linux

Linux in Daily Life and Industry	10
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159 min.

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Virtualize Desktops	7
Install Virtualization Software and Guests	19
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Using Certificates to Encrypt and Sign	15
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### Finding Your Way on a Linux System

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Command Line Basics Demo	15
Local and Environment Variables	12

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155 min.

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Help with Additional Tools	10
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## Managing Directories and Files

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Using Directories Demo	10
Advanced "ls" Options	7
Creating, Managing, and Deleting Files	14
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### Archiving Files on the Command Line

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Compression	8
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Archive and Compression Commands	6
Archive Demonstration	7
Compression Demonstration	13
Compressed Archive Demonstration	5
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### Searching & Extracting Data, and Scripting

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Standard Output	4
Error Handling	7
Input and Here Document	4
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Piping Results	7

## WEEK 4

159 min.

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### Choose an Operating System

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Windows vs Linux 13

macOS 12

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### Hardware: Power Supplies, Motherboard, RAM

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### Hardware: CPU, Storage, Peripherals, and Devices

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**156 min.**

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Hard Disk Drive Performance 5

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M.2 Storage 3

RAID Arrays 6

Partitions 6

Drivers and Device Files 4

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### Where Data is Stored

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var Directory 4

proc Directory 6

dev Directory 6

sys Directory 7

Binary Directories 8

etc Directory 5

System and Log Analysis 8

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### Your Computer on the Network

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Link Layer 7

Binary Numbering 6

Binary and Decimal IP Addresses 7

How Routing Works 8

Routing and the ANDing Process 8

Private IPv4 Addresses 11

## WEEK 6

**154 min.**

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DNS and Sockets 11

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## Basic Security, Tools, Shell, and Access Control

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## Creating Users and Groups

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Work with Groups	7
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## File Permissions, Ownership, and Links

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Numeric Mode Permissions	6
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The Sticky Bit	5
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