

# Advanced Linux System

Linux is an open-source operating system released in 1991 for computers, but its use has expanded to underpin systems for cars, phones, web servers and, more recently, networking gear. Its longevity, maturity and security make it one of the most trusted OSes available today. This course specifically designed for students who have basic Linux knowledge and looking for advance skills in Linux.

## You Must Know!

### Duration:

40 Hours

### Who should attend?

Linux users, programmers, and network administrators

### Prerequisites:

Knowledge of general operating system concepts

### Main Topics:

- Linux Kernel
- Security Tools
- Linux Permissions
- Filesystem Management
- Networking
- Advanced Shell Scripting

## Course modules

### Module 1 – Linux Kernel 5.7 Features

- ARM Extended Support
- Enhanced I/O Interface
- New Filesystem Drivers

### Module 2 – CentOS 8 Latest Features

- Improved GUI
- Better TCP Networking Performance
- Enhanced KVM Virtualization

### Module 3 – Ubuntu 20.04 Latest Features

- Enhanced and Faster GUI
- Controlling Notifications
- Fractional Scaling

### Module 4 – Deep Dive Into Linux Kernel

- CPU Processes Scheduling
- Memory Allocation
- Filesystem Maintenance

### Module 5 – Security Tools

- What is SELinux?
- Netfilter Framework
- Metasploit Project
- FirewallD Expert Usage

### Module 6 – Security Topics

- Encryption protocols
- Digital certificates
- Advanced Linux Permissions

## Module 7 – Filesystem Management

- swap space & autofs
- XFS file system

## Module 8 – Networking

- Load Balancing
- NAT & PPP
- VLAN Routing

## Module 9 – Advanced Topics

- OpenLDAP
- Linux Virtual Server Cluster (LVS)
- Advanced Shell Scripting
  - Regular Expressions
  - I/O Redirection
  - Subshells
  - Debugging



המרכז הבינלאומי  
ללימודי הייטק וחדשנות

\* 6377

מתקדמים  
לקריירה בהייטק



Microsoft Partner  
Gold Learning



### קמפוסים בפריסה ארצית:

באר שבע

רחוב האנגריה 77  
פארק ההייטק

ירושלים

רחוב יפו 34

רחובות

רחוב אופנהיימר 5  
פארק המדע

תל אביב

ראול ולנברג 36  
קריית עתידים