

## Linux Certified Engineer (LCE)<sup>™</sup>

### Course Outline



[www.gaqm.org](http://www.gaqm.org)

#### What Modules are covered?

##### Shells, Scripting and Data Management

- 1) Customize and use the shell environment
- 2) Customize or write simple scripts
- 3) SQL data management
- 4) User Interfaces and Desktops
- 5) Setup a display manager
- 6) Accessibility

##### Administrative Tasks

- 1) Manage user and group accounts and related system files
- 2) Automate system administration tasks by scheduling jobs
- 3) Localisation and internationalisation

##### Essential System Services

- 1) Maintain system time
- 2) System logging
- 3) Mail Transfer Agent (MTA) basics
- 4) Manage printers and printing

##### Networking Fundamentals

- 1) Fundamentals of internet protocols
- 2) Basic network configuration
- 3) Basic network troubleshooting
- 4) Configure client side DNS
- 5) Fundamentals of internet protocols

##### Security

- 1) Perform security administration tasks
- 2) Setup host security
- 3) Securing data with encryption

##### Linux Kernel

- 1) Kernel Components
- 2) Compiling a kernel
- 3) Patching a kernel

##### Customise, build and install a custom kernel and kernel modules

- 1) Manage/Query kernel and kernel modules at runtime

##### System Startup

- 1) System recovery

##### Filesystem and Devices

- 1) Operating the Linux filesystem
- 2) Maintaining a Linux filesystem
- 3) Creating and configuring filesystem options
- 4) udev Device Management

##### Advanced Storage Device Administration

- 1) Configuring RAID
- 2) Adjusting Storage Device Access
- 3) Logical Volume Manager

##### Networking Configuration

- 1) Basic networking configuration
- 2) Advanced Network Configuration and Troubleshooting
- 3) Troubleshooting network issues

##### System Maintenance

- 1) Make and install programs from source
- 2) Backup operations

##### Domain Name Server

- 1) Basic DNS server configuration
- 2) Create and maintain DNS zones
- 3) Securing a DNS serve

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