**Syllabus**

**Day 1 – Installation, Configuration, File System and Basic Commands**

* Understanding of Linux?
* What is Oracle Virtual Box?
* Downloading and Installing Oracle Virtual Box
* Creating virtual machine
* Linux Distributions
* Downloading and Installing Linux (CentOS)
* Download and install Putty
* Connect Linux VM via Putty
* Changing Password
* Introduction to File System
* File system structure description
* File system navigation commands
* Directory listing overview
* Creating Files and Directories
* File system paths
* Finding Files and Directories (find, locate)
* Wildcard (\*, $, ^)
* Quiz and Handouts

**Day 2 – Linux System Administration**

* File Permissions *(chmod)*
* File Ownership *(chown, chgrp)*
* Getting Help *(man, whatis etc.)*
* Adding text to file
* Pipes *( | )*
* File Maintenance Commands
* File Display Commands
* Filters / Text Processing Commands *(cut, sort, grep, awk, uniq, wc)*
* Compare Files *(diff, cmp)*
* Compress and un-compress files/directories *(tar, gzip, gunzip)*
* Linux File Editors *(vi text editor)*
* User account management
* Switch users and Sudo access
* Monitor users
* System utility commands *(date, uptime, hostname, which, cal, bc etc.)*
* Quiz and Handouts

**Day 3 – Advance Linux System Administration**

* Processes and schedules *(systemctl, ps, top, kill, crontab and at)*
* System Monitoring Commands *(top, df, dmesg, iostat 1, netstat, free etc.)*
* OS Maintenance Commands *(shutdown, reboot, halt, init etc.)*
* Changing System Hostname *(hostnamectl)*
* Finding System Information *(uname, cat /etc/redhat-release, cat /etc/\*rel\*, dmidecode)*
* Terminal control keys
* Linux Kernel
* What is Shell?
* Shell scripting
* Basic Shell scripts
* Aliases
* Command **history**
* Enabling Internet in Linux VM
* Network Files and Commands *(ping, ifconfig, netstat, tcpdump, networking config files)*
* Network Interface *(ethtool)*
* System Updates and Repositories *(rpm and yum)*
* System Upgrade and Path Management
* System Run Levels
* File transfer *(ftp, scp, rsync etc.)*
* Message of the Day
* Disk Partition *(df, fdisk, etc.)*
* Quiz and Handouts