**Linux on a Weekend Syllabus**

**Saturday – Basic Linux Administration**

* Understanding of Linux?
* What is Oracle Virtual Box?
* Oracle Virtual Box Installation
* Creating virtual machine
* Linux Distributions
* Linux Installation
* Download and install Putty
* Connect Linux VM via Putty
* Changing Password *(passwd)*
* Introduction to File System
* File system structure description
* File system navigation commands *(cd, pwd, ls)*
* Directory listing overview
* Creating Files and Directories *(echo, touch, vi, cp, redirects > and >>)*
* File Permissions *(chmod)*
* File Ownership *(chown, chgrp)*
* Getting Help *(man, whatis etc.)*
* Adding text to file
* Pipes *( | )*
* Quiz, Homework and Handouts

**Sunday – Advance Linux Administration**

* File Maintenance Commands
* File Display Commands
* Filters / Text Processing Commands *(cut, sort, grep, awk, uniq, wc)*
* Finding System Information *(uname, cat /etc/redhat-release, cat /etc/\*rel\*, dmidecode)*
* Linux File Editors *(vi text editor)*
* User account management *(useradd, groupadd, usermod, userdel, groupdel)*
* Switch users and Sudo access
* System utility commands *(date, uptime, hostname, which, cal, bc etc.)*
* Processes and schedules *(systemctl, ps, top, kill, crontab and at)*
* OS Maintenance Commands *(shutdown, reboot, halt, init etc.)*
* System Monitoring Commands *(top, df, dmesg, iostat 1, netstat, free etc.)*
* Shell scripting
* Basic Shell scripts
* Aliases *(alias and unalias)*
* Command **history**
* Enabling Internet in Linux VM
* Network Files and Commands *(ping, ifconfig, netstat, tcpdump, networking config files)*
* System Updates and Repositories *(rpm and yum)*
* System Run Levels
* Quiz, Homework and Handouts