

COURSE TITLE	:	SYSTEM ADMINISTRATION LAB
COURSE CODE	:	457
COURSE CATEGORY	:	A
PERIOD/WEEK	:	5
PERIODS/SEMESTER	:	90
CREDITS	:	3

Large companies and organisation rely more and more IT resources, has created a large demand for a new job in market place – System Administration. This course aims to provide a fairly general practical knowledge in System Administration.

Course Objectives :

On Completion of this course, the student should able to :

1. Understand the tasks of system administrator.
2. Use Command and Graphical tools for System Administration.
3. Use shell scripting for System Administration.

Objectives :

1. Understand the role of system administrator.
2. Discussion about different linux distributions.
3. Using man pages and other documentation.
4. Study of linux file system hierarchy.
5. Using the command line/Shell
6. Basic File & Directory management commands – (cd,ls,cp,mv,mkdir,rm etc)
7. Combining multiple commands to do tasks. Using streams, pipes, filters and redirection (cat, grep, uniq, sort, wc, cut etc..) eg: cat /etc/passwd | grep username | cut -d":" -f 6
8. Basic shell programming constructs. Variables, expressions, If, for
9. Job and Process Control. (ps, kill, fg, bg, top, nice etc.)
10. Adding new users, groups, permissions
11. Managing File ownership and File Permissions.
12. File system Concepts, ext3 etc.
13. Creating Partitions and File systems
14. Controlling File system mounting and unmounting.
15. Maintain the integrity of file systems.- du,df,fsck
16. GNU/Linux booting sequence. Bootloader, kernel, init system, run levels etc..
17. Demons/Services
18. Adding/editing services to runlevels
19. Automating and Schedule system Administration tasks. Cron
20. Data Backup strategy.
21. Configure and use system log files.
22. Software Installation and Management.
23. Printing Services.
24. Recovering from a crashed system – reinstalling boot loader etc..
25. Kernel of Linux System and Drivers - Configuring/ compilation/updating Kernel